3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.11 Safety and Security

3.11.1 Introduction

Section 3.11, Safety and Security, of the Los Angeles to Anaheim Project Section (project section) Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) discusses 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 describes impact avoidance and minimization features (IAMF) that 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 3.11 also defines the safety and security resources within the region and describes the affected environment and resource study areas (RSA).

PURPOSE

Safety and Security

The safe and secure operation of the California High-Speed Rail System is of highest priority. The system is designed to generally be grade separated, which would improve safety. The system would be generally access controlled. An access-controlled system would help to prevent entry into the corridor by unauthorized vehicles, people, animals, and objects. All aspects of the proposed project would conform to the latest federal requirements regarding transportation security and safety. During operations the project would abide by safety and security plans as developed by the California High-Speed Rail Authority in cooperation with the Federal Railroad Administration and Transportation Security Administration.

As described in the *Final Program EIR/EIS for the Proposed California High-Speed Train System* documents, safe operation of the HSR system is of the highest priority (Authority and FRA 2005). This means that the HSR infrastructure (e.g., main line tracks, stations, maintenance and storage facilities) would be designed to prevent access by unauthorized vehicles, people, animals, and objects. The HSR system would also include appropriate barriers (fences and walls) and state-of-the-art communication, access control, and monitoring and detection systems. In addition, the HSR system would conform to the latest federal requirements regarding transportation security. This section provides details on safety issues related to construction and operation of the Shared Passenger Track Alternatives, including the measures and regulations currently in place or that would be put in place to keep employees, passengers, freight rail operations, and the public safe from HSR-related activities. This section also considers security issues that could result from criminal acts that could affect HSR operation and the ability for emergency responders to respond to incidents.

Additional details on safety and security 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 3.11-A, Safety and Security Data
- Appendix 3.11-B, Existing and Proposed Railroad Crossings
- Appendix 3.11-C, Airport Obstructions

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 (Authority 2017, 2022). One chapter and seven other resource sections in this Draft EIR/EIS provide additional information on safety and security:

- **Section 3.2, Transportation:** Construction and operational changes from the Shared Passenger Track Alternatives on safety from automobile, pedestrian, and bicycle traffic.

- **Section 3.5, Electromagnetic Fields and Electromagnetic Interference:** Operational impacts related to electromagnetic fields (EMF) and electromagnetic interference (EMI) resulting from the Shared Passenger Track Alternatives.
- **Section 3.6, Public Utilities and Energy:** Construction and operational changes from the Shared Passenger Track Alternatives on safety from electrical transmission, natural gas, and petroleum fuel pipelines.
- **Section 3.8, Hydrology and Water Resources:** Construction and operational changes from the Shared Passenger Track Alternatives on flood risk.
- **Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources:** Construction and operational changes from the Shared Passenger Track Alternatives on seismicity and geotechnical resources including impacts related to soil erosion and stability as well as the potential for inundation from the failure of a levee or dam, seiche, tsunami, or mudflow.
- **Section 3.10, Hazardous Materials and Wastes:** Construction and operational changes from the Shared Passenger Track Alternatives on safety related to hazardous materials and waste, such as use of hazardous materials or exposure to soil and groundwater contamination and impacts on land uses adjacent to active or closed landfills.
- **Section 3.19, Cumulative Impacts:** Construction and operational changes from the Shared Passenger Track Alternatives and other past, present, and reasonably foreseeable future projects.
- **Chapter 5, Community Analysis:** Construction and operational changes from the Shared Passenger Track Alternatives that could have disproportionate adverse impacts on low-income and minority populations.

3.11.1.1 Definition of Resources

The following are definitions for the safety and security resources analyzed in this Draft EIR/EIS.

- **Safety:** Safety is defined as vulnerability to accidental injury (usually involving at least one vehicle as the instrument causing the injury). Therefore, safety resources are components of the built environment that contribute to the safety of a place (e.g., barriers, grade separations, sidewalks, bicycle lanes).
- **Security:** Security is defined as vulnerability to intentional criminal or antisocial acts suffered by individuals taking trips. Security is provided by something other than the built environment and ensures the safety of a place from intentional criminal acts (e.g., security guards, bag checks, surveillance cameras).
- **Emergency Services:** Emergency services include emergency response by fire, law enforcement, and emergency services to fire, seismic events, or other emergency situations.
- **Fire Protection:** Fire protection services, included as part of emergency services, provide predominantly emergency firefighting and rescue services. These services typically include local fire departments, including paid and volunteer fire departments, county fire services, and equipment used to respond to incidents.
- **Law Enforcement:** Law enforcement services, included as part of emergency services, address the discovery, deterrence, rehabilitation, or punishment of criminal behavior and that the laws of an area are obeyed. These services are provided by federal, state, and local law enforcement agencies. Railroad operators, including the California High-Speed Rail Authority (Authority), may also employ railroad police officers to enforce state laws for the protection of railroad property, personnel, passengers, and cargo (49 Code of Federal Regulations [CFR] Part 207).
- **Emergency Medical Services:** Emergency medical services, included as part of emergency services, refer to the treatment and transport of people in crisis health situations that may be

life threatening. These services are typically provided by local fire departments, emergency medical service agencies, and independent ambulance services.

- **Emergency Response Plans:** Emergency response plans are created by counties and cities within the RSAs and outline procedures for operations during emergencies such as earthquakes, floods, fires, and other natural disasters; hazardous materials spills; transportation emergencies; civil disturbance; and terrorism.
- **Community Safety and Security:** Community safety and security addresses safety and security concerns of construction site workers, HSR passengers and employees, and members of the general public (including motorists, pedestrians, and bicyclists) that could be exposed to significant risks of loss, injury, or death during construction, and HSR system passengers and employees or structures that could be exposed to significant risk of loss, injury, or death during operations.

  Community safety addresses emergency and fire response, automobile, pedestrian and bicycle safety, landfill safety, fire hazards, rail and aviation safety, school safety, and high-risk facilities and fall hazards.

  Community security addresses high-risk facility security, criminal acts (including vandalism, theft, and violence), and acts of terrorism.
- **Wildland Fires**: Wildland fires have historically posed a threat to communities in Southern California and could expose people or structures to a significant risk of loss, injury, or death, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildfires.

3.11.2 Laws, Regulations, and Orders

This section describes the federal, state, and local laws, regulations, orders, and plans that are relevant to safety and security. General National Environmental Policy Act (NEPA) (42 U.S. Code 4321 et seq.) and California Environmental Quality Act (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 safety and security are, however, described in this section.

3.11.2.1 Federal

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. The FRA *Procedures for Considering Environmental Impacts* state 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 than an EIS should consider possible impacts on public safety.[1]

[1] On December 6, 2016, the FRA published a Notice of Proposed Rulemaking proposing to amend its regulations on passenger equipment safety standards. Refer to 81 *Federal Register* 8006. The Notice of Proposed Rulemaking addresses three major subject areas: (1) Tier III transit safety standards; (2) alternative crashworthiness and occupant

Rail Safety Improvement Act of 2008 (Public Law 110-432)

The Rail Safety Improvement Act reauthorized the FRA to oversee the nation's rail safety program. One aim of the statute is to improve conditions of rail bridges and tunnels. The Rail Safety Improvement Act also requires that railroads implement positive train control (PTC) systems by the end of 2015 on certain rail lines. The FRA allowed compliance extensions through calendar year 2021. Operational requirements for trains operating on PTC-mandated lines became effective January 1, 2022, and additional requirements will take effect in calendar year 2023.[2] PTC infrastructure consists of integrated command, control, communications, and information systems for controlling train movements that improve railroad safety by reducing the probability of collisions between trains, casualties to roadway workers and damage to their equipment, and overspeed accidents (FRA Regulations [49 CFR Parts 200–299]).

U.S. Code on Railroad Safety (49 U.S. Code 20101 et seq.)

This code contains a series of statutory provisions affecting the safety of railroad operations.

Federal Railroad Administration – System Safety Program (49 CFR Part 270)

This regulatory program requires commuter and intercity passenger railroads to develop and implement a system safety program (SSP) to improve the safety of their operations. An SSP is a structured program with proactive processes and procedures, developed and implemented by railroads to identify and mitigate or eliminate hazards to reduce the number and rates of railroad accidents, incidents, injuries, and fatalities.

On August 12, 2016, the FRA published the final rule requiring commuter and intercity passenger railroads to develop and implement an SSP to improve safety of their operations. The FRA stayed the effective date of the final rule until March 4, 2020 (84 *Federal Register* 45683, December 18, 2018).[3] The Final Rule (49 CFR Part 270) was published in the *Federal Register* on March 4, 2020, and took effect on May 4, 2020 (85 *Federal Register* 12826).

Federal Railroad Administration, Passenger Equipment Safety Standards; Standards for Alternative Compliance and High-Speed Trainsets (49 CFR Parts 229, 231, 236, and 238)

In 2018, the FRA amended its passenger equipment safety standards using a performance-based approach to adopt new and modified requirements governing the construction of conventional and high-speed passenger rail equipment.[4] This final rule adds a new tier of passenger equipment safety standards (Tier III) to facilitate the safe implementation of nationwide, interoperable high-speed passenger rail service at speeds up to 220 miles per hour (mph). Although Tier III trainsets must operate in an exclusive right-of-way without at-grade

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protection performance requirements for Tier 1 passenger equipment; and (3) the maximum authorized speed for Tier III passenger equipment. These standards became effective January 22, 2019, according to the FRA publication of a Final Rule (refer to 83 *Federal Register* 59182, November 21, 2018). The Final Rule amends the FRA's passenger equipment safety standards using a performance-based approach to adopt new and modified requirements governing the construction of conventional- and high-speed passenger rail equipment.

[2] In late 2015, Congress extended the deadline by at least 3 years to December 31, 2018, with the possibility of an extension to a date no later than December 31, 2020, if a railroad completes certain statutory requirements that are necessary to obtain an extension (https://www.fra.dot.gov/ptc). The Positive Train Control Enforcement and Implementation Act of 2015 requires an FRA-certified and interoperable PTC system to govern operations on all main lines subject to the statutory mandate by December 31, 2020. The Early Adoption subsection of the statute (49 U.S. Code 20157(j)) recognized that certain PTC system failures (e.g., initialization failures, cut outs, malfunctions) may occur after December 31, 2020. Calendar year 2021 was the last year of the Early Adoption Period. The FRA published a table that summarizes the pertinent authorizations and prohibitions under the Early Adoption subsection (49 U.S. Code 20157(j)) and FRA regulations, including 49 CFR Parts 236.1006(b)(3) and 236.1029(g). Operational requirements for trains operating on PTC-mandated lines became effective January 1, 2022, and additional requirements took effect in calendar year 2023.

[3] https://www.transportation.gov/sites/dot.gov/files/2025-07/DOT_Order_5610.1D_OST-P-250627-001_508_Compliant.pdf. July 1, 2025.

[4] www.govinfo.gov/content/pkg/FR-2018-11-21/pdf/2018-25020.pdf (83 *Federal Register* 59182)

crossings at speeds above 125 mph, these trainsets can share the right-of-way with freight trains and other tiers of passenger equipment at speeds not exceeding 125 mph. The final rule also establishes crashworthiness and occupant protection performance requirements in the alternative to those currently specified for Tier I passenger trainsets. The Tier III requirements and Tier I alternative crashworthiness and occupant protection requirements remove regulatory barriers and enable use of new technological designs, allowing a more open U.S. rail market. Additionally, the final rule increases from 150 to 160 mph the maximum speed for passenger equipment that complies with the FRA's Tier II requirements.

Department of Homeland Security/Transportation Security Administration (TSA) (49 CFR Part 1580)

This part codifies the TSA inspection program. It also includes security requirements for freight railroad carriers; intercity, commuter, and short-haul passenger train service providers; rail transit systems; and rail operations at certain fixed-site facilities that ship or receive specified hazardous materials by rail.

Transportation Security Administration—Security Directives for Passenger Rail

Security Directives RAILPAX-04-01 and RAILPAX-04-02 require rail transportation operators to implement certain protective measures, report potential threats and security concerns to TSA, and designate a primary and alternate security coordinator.

Emergency Planning and Community Right-to-Know Act (42 U.S. Code 11001–11050)

The objectives of the Emergency Planning and Community Right-to-Know Act are to allow state and local planning for chemical emergencies; provide for notification of emergency releases of chemicals; require industries to report the storage, use, and release of hazardous substances to federal, state, and local authorities; and address a community's right to know about toxic and hazardous chemicals via a Toxic Release Inventory.

Federal Aviation Administration (FAA) (14 CFR Part 77)

Under FAA's Federal Aviation Regulation Part 77 standards for determining obstructions to airspace, an existing object, including a mobile object, would be an obstruction to air navigation if it penetrates the surface of a takeoff and landing area of an airport or any imaginary surface established for the airport (14 CFR Part 77.24); 14 CFR Part 77.7 establishes that notification must be submitted to FAA a minimum of 45 days prior to the proposed commencement of construction.

Federal Aviation Administration Rotocraft External-Load Operations and Operation Rules (14 CFR Part 133 and Section 133.33)

Helicopter external lift operations are regulated under 14 CFR Part 133, Rotocraft External-Load Operations, and Section 133.33, Operation Rules. FAA requires helicopter operators to submit an External Load Lift Plan to the agency for review and approval for public safety purposes prior to lifting external loads over or immediately adjacent to structures or roads. The plan would specify the following:

- Pilot qualifications and experience (pilots must be qualified in accordance with 14 CFR Part 133 for Class A and B, external load operations)
- Requirement for an aerial hazard analysis of the construction site
- Protective clothing/equipment for ground personnel
- Specifications for rope used to suspend external loads
- Specification of responsibility for providing load calculations
- Specification of requirements for mission briefing prior to aerial operations
- Safety considerations from Chapter 11 of the Interagency Helicopter Operations Guide (National Wildlife Coordination Group 2016), adapted to meet the project's requirements

- Emergency procedures in the event of a mechanical failure

The plan would be required to specify the exact routes the helicopter would use and the proximity of the routes to all nearby roads and structures. If the helicopter must fly over a building, the building must be vacated. If a helicopter is to fly over a road, all traffic on the road must be temporarily stopped. If external load helicopter operations are conducted in an area away from structures and roads, a waiver may be obtained exempting the operator from submitting a plan.

Federal Aviation Administration 14 CFR Part 77

Under FAA Federal Aviation Regulation Part 77 standards for determining obstructions to airspace, an existing object, including a mobile object, would be an obstruction to air navigation if it penetrates the surface of a takeoff and landing area of an airport or any imaginary surface established for the airport (14 CFR Part 77.24); 14 CFR Part 77 Section 77.7 establishes that notification must be submitted to FAA a minimum of 45 days prior to the proposed commencement of construction.

National Fire Protection Association (NFPA) (Standard 130)

NFPA Standard 130, *Safety Standard for Fixed Guideway Transit and Passenger Rail Systems*, specifies the latest fire protection and life safety requirements for underground, surface, and elevated fixed-guideway transit and passenger rail systems. State and local safety requirements may incorporate NFPA Codes and Standards. Technical Memorandum 2.8.1, *Safety and Security Design Requirements for Infrastructure Elements*, incorporates several NFPA codes and standards (Authority 2013a).

3.11.2.2 State

California Government Code Section 65302

California Government Code Section 65302 requires cities and counties to include in their general plan a statement of development policies setting forth objectives, principles, standards and plan proposals for seven policy areas, including safety. The safety element is to provide for the protection of the community from unreasonable risks associated with seismic and geologic hazards, flooding, and wildland and urban fires. The element must also address evacuation routes, peak load water supply requirements, and minimum road widths and clearances around structures, as those items related to identified fire and geologic hazards.

California Occupational Safety and Health Administration Construction Safety Orders (California Code of Regulations, Title 8, Section 1502 et seq.)

Worksite safety in California, including construction worksite safety, is regulated by provisions of Title 8 of the California Code of Regulations and overseen by the California Occupational Safety and Health Administration. Title 8 requires compliance with standard procedures to prevent construction worksite accidents and requires a written workplace injury and illness prevention program to be in place (Cal. Code Regs., tit. 8, Section 1502 et seq.).

California Public Utilities Code Section 309

Under California Public Utilities Code Section 309, the executive director may employ such officers, administrative law judges, experts, engineers, statisticians, accountants, inspectors, clerks, and employees as the executive director deems necessary to carry out the provisions of this part or to perform the duties and exercise the powers conferred upon the commission by law. All officers and employees shall receive such compensation as is fixed by the commission.

California Public Utilities Code Section 315

Under California Public Utilities Code Section 315, the California Public Utilities Commission (CPUC) shall investigate the cause of all accidents occurring in California upon the property of any public utility or directly or indirectly arising from or connected with its maintenance or operation, resulting in loss of life or injury to person or property and requiring, in the judgment of CPUC, investigation by it, and may make such order or recommendation with respect thereto as

in its judgment seems just and reasonable. Neither the order nor recommendation of CPUC nor any accident report filed with CPUC shall be admitted as evidence in any action for damages based on or arising out of such loss of life, or injury to person or property. Every public utility shall file with CPUC, under such rules as CPUC prescribes, a report of each accident so occurring of such kinds or classes as CPUC from time to time designates.

California Public Utilities Code Section 765.5

Under California Public Utilities Code Section 765.5, CPUC is required to establish minimum inspection standards to ensure that railroad locomotives, equipment, and facilities in Class 1 railroad yards will be inspected not less frequently than every 120 days. For branch and main line tracks, such inspections shall occur at minimum every 12 months. CPUC is required to conduct focused inspections of railroad yards and track, either in coordination with the FRA or as CPUC determines to be necessary. The focused inspection program shall target railroad yards and track that pose the greatest safety risk, based on inspection data, accident history, and rail traffic density.

California Public Utilities Code Section 768

Under California Public Utilities Code Section 768, CPUC may, after a hearing, require every public utility to build, maintain, and operate its line, plant, system, equipment, apparatus, tracks, and premises in a manner so as to promote and safeguard the health and safety of its employees, passengers, customers, and the public. CPUC may prescribe, among other things, the installation, use, maintenance, and operation of appropriate safety or other devices or appliances, including interlocking and other protective devices at at-grade crossings or junctions and block or other systems of signaling. CPUC may establish uniform or other standards of construction and equipment, and require the performance of any other act that the health or safety of its employees, passengers, customers, or the public may demand.

California Public Utilities Code Section 7661 and 7665 (Local Community Rail Security Act of 2006)

Under California Public Utilities Code Section 7661 and Section 7665 (the Local Community Rail Security Act of 2006), every railroad corporation operating in California is required to develop, in consultation with, and with the approval of, the California Emergency Management Agency,[5] a protocol for rapid communications with the agency, the California Highway Patrol (CHP), and designated county public safety agencies in an endangered area if there is a runaway train or any other uncontrolled train movement that threatens public health and safety. Railroad corporations are required to promptly notify the California Emergency Management Agency, CHP, and designated county public safety agencies, through communication to the Warning Center of the California Emergency Management Agency, if there is a runaway train or any other uncontrolled train movement that threatens public health and safety, in accordance with the railroad corporation's communications protocol.

California Public Utilities Code Sections 7710 to 7727

California Public Utilities Code Sections 7710 to 7727 cover railroad safety and emergency planning and response. Under these sections, CPUC is required to adopt safety regulations and to report sites on railroad lines that are deemed hazardous within California. The Rail Accident Prevention and Response Fund was created in an effort to support prevention regulations financially through fees paid by surface transporters of hazardous materials. In addition, the Railroad Accident Prevention and Immediate Deployment Force was created to provide immediate on-site response in the event of a large-scale unauthorized release of hazardous materials. Modifications of existing highway-rail crossings require CPUC authorization, and

[5] The California Emergency Management Agency was superseded by the California Governor's Office of Emergency Services in 2013.

temporarily impaired clearance during construction requires application to CPUC and notice to railroads.

California Public Utilities Commission General Order No. 176

CPUC General Order No. 176, *Rules for Overhead 25 kV AC Railroad Electrification Systems for High-Speed Rail System* (March 26, 2015), identifies uniform safety requirements governing the design, construction, installation, operation, and maintenance of 25-kilovolt (kV) alternating-current-electrification systems conducted in the state of California, serving an HSR passenger system capable of operating at 150 mph or higher, and in dedicated rights-of-way with no public highway/rail at-grade crossings and in which freight operations do not occur.

California Public Utilities Commission General Order 164-D, Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems and Federal Transit Administration Rail Fixed Guideway Systems: State Safety Oversight (49 CFR Part 659)

CPUC General Order 164-D and 49 CFR Part 659 require CPUC, as a designated state safety oversight agency, to review each rail transit agency's system safety and security program at a minimum of once every 3 years. The purpose of these triennial reviews is to verify compliance and evaluate the effectiveness of each rail transit agency's SSP plan and Security and Emergency Preparedness Plan (SEPP) to assess the level of compliance with CPUC General Order 164-D and other CPUC safety and security requirements (CPUC 2015).

California Emergency Services Act (California Government Code Section 8550 et seq.)

The Emergency Services Act supports the state's responsibility to mitigate adverse impacts of natural, human-produced, or war-caused emergencies that threaten human life, property, and environmental resources of the state. The act aims to protect human health and safety and to preserve the lives and property of the people of the state. The act provides the California Office of Emergency Services (Cal OES) with the authority to prescribe powers and duties supportive of the act's goals. In addition, the act authorizes the establishment of local organizations to carry out the provisions through necessary and proper actions.

California Public Resources Code Section 21096

The California Public Resources Code requires that the California Department of Transportation, Division of Aeronautics *California Airport Land Use Planning Handbook* (Caltrans 2011) be used as a technical resource to assist in the preparation of an EIR for a project situated within the boundaries of an airport land use compatibility plan. The *California Airport Land Use Planning Handbook* supports the State Aeronautics Act (California Public Resources Code Section 21670 et seq.), providing compatibility planning guidance to airport land use commissions, their staffs and consultants, the counties and cities having jurisdiction over airport area land uses, and airport proprietors.

California Public Resources Code Section 21098

California Public Resources Code Section 21098 specifies notification procedures if a proposed project is within a "low-level flight path" for aircraft that fly lower than 1,500 feet above the ground or a "military impact zone" within 2 miles of a military installation under the jurisdiction of the U.S. Department of Defense.

California Public Utilities Code Section 21674.7

California Public Utilities Code Section 21674.7 establishes procedures for airport land use planning, including development of airport comprehensive land use plans and definitions of airport influence areas. The airport influence area is a composite of the areas surrounding the airport that are affected by noise, height, and safety considerations. The airport influence area is defined as a feature-based boundary around the airport within which all actions, regulations, and permits must be evaluated by local agencies to determine how the comprehensive land use plan policies may affect the proposed development. This evaluation is used to determine whether the development meets the conditions specified for height restrictions and noise and safety protection to the public.

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

California Code of Regulations, Title 27, Section 20917 et seq. sets 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 to 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 from the disposal of solid waste.

Power Line Safety and Fire Protection (14 California Code of Regulations 1250)

California Code of Regulations, Title 14, Section 1250, Fire Prevention Standards for Electric Utilities, specifies utility-related measures for fire prevention. It also provides specific exemptions from electric pole and tower firebreak clearance standards and electric conductor clearance standards, and specifies when and where the standards apply.

2022 California Fire Code (California Code of Regulations Title 24 Part 9)

The 2022 California Fire Code sets forth requirements including those for building materials and methods pertaining to fire safety and life safety, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials. The fire code also is intended to aid fire fighters and other emergency responders during their operations. The code is updated every 3 years and was last updated in 2021 and adopted in 2022.

California Department of Forestry and Fire Protection—Strategic Fire Plan for California

The *2019 Strategic Plan* (CAL FIRE 2019) provides the state's road map for reducing the risk of wildfire. Part of this plan identifies and assesses community assets at risk of wildfire damage. The California Department of Forestry and Fire Protection generated a list of California communities at risk for wildfire and created fire hazard severity zones.

California High-Speed Rail Program

Safety and Security Management Plan

Safety and security are priority considerations in the planning and execution of work activities for the California HSR Program. The system safety and system security program for the development and operation of HSR is described in the Authority's Safety and Security Management Plan (SSMP) (Authority 2023). The SSMP is based on Federal Transit Administration guidelines for the safe and secure development of major capital projects. The plan includes the Authority's Safety and Security Policy Statement, roles and responsibilities for safety and security across the project, the program for managing safety hazards and security threats/vulnerabilities, safety and security certification program requirements, and construction safety and security requirements.

A hierarchy of controls shall be applied when considering the management of identified hazards:

1. Avoidance
2. Elimination
3. Substitution
4. Engineering controls
5. Warnings
6. Administrative controls
7. Personal protection equipment

The safety and security of HSR passengers, employees, and the surrounding communities are ensured through the application of risk-based system safety and system security programs that identify, assess, avoid, and mitigate hazards and vulnerabilities for the HSR. Using domestic and international regulations, guidance, and industry best practices, the objective of the HSR system

safety and system security programs is to ensure that risk-based hazard mitigation measures are adequately and consistently applied.

HSR train sets and fixed infrastructure would employ the latest safety features and designs to enable the trains to stay upright and in line in the event of a derailment. PTC systems would provide additional protections against collisions, derailments, outside hazards such as intrusions into the right-of-way, earthquakes, and severe weather conditions.

Safety and Security Management Plan (SSMP): a required document for recipients of Federal Transit Administration funds that outlines how safety and security for a major capital project will be addressed.

System Security Plan: a document that outlines an organization's security requirements and how they plan to meet them.

Safety, Security, and Emergency Preparedness: a framework that outlines how to prepare for emergencies and security incidents.

The HSR guideway, stations, and associated facilities would include fire- and life-safety infrastructure (including fire and smoke prevention and control); security and communications systems; and features to manage adjacent hazards from electrical and other utilities, hazardous materials facilities, oil and gas wells, and wind turbines.

All existing roadway overcrossings that would span over the shared tracks would be modified to have protective barriers on the top, which prevents people or objects from entering the HSR right-of-way from the bridge. Detailed plans of barrier type and installation details will be determined during the Preliminary Engineering for Procurement[6] design phase and coordination with the corridor stakeholders. Chapter 2, Alternatives, provides details and figures for new grade separations and existing grade separations that would be modified with roadway vertical realignments or new piers and abutments and also lists all the crossings and any modification that would be required. Appropriate setbacks and access controls for adjacent facilities or underneath elevated structures, based on existing regulations, guidance, or site-specific analysis, would ensure the safety and security of both the HSR operation and adjacent communities.

The Authority would require the SSMP for the project extent be developed and implemented prior to construction. The SSMP would apply to design, construction, and testing and startup of the HSR system, but not to revenue operations of the project extent. The SSMP would lead to the development of an SSP plan, Fire and Life Safety Program, and SEPP that would be applicable to operation of the project extent and that would govern safety and security for the HSR operating system (Authority 2013b).

A Threat and Vulnerability Assessment for security and Preliminary Hazard Analysis and Vehicle Hazard Analysis for safety would be developed as well as a System Security Plan during the preliminary engineering phase that would address design features of the proposed project intended to maintain security at the stations, within the trackwork right-of-way, and on board trains.

As part of the System Security Plan, the Authority would implement a risk-based hazard management program to identify hazards and resulting risks on the HSR operating system and develop and implement methods to mitigate or eliminate these hazards and risks to the extent practicable.

Technical Memorandum 2.8.1 Safety and Security Design Requirements for Infrastructure Elements

Technical Memorandum 2.8.1 identifies the safety and security requirements for infrastructure elements for the HSR program. Key elements include:

[6] The Preliminary Engineering for Procurement defines a level of design required for the procurement of final design and construction services for the project under a Design-Build Strategy.

- Safety and security design strategies to be employed
- Access/egress requirements for at-grade, raised, aerial, tunnel, and trench alignment configurations
- Fire- and life-safety infrastructure for stations, tunnels, and support facilities including fire and smoke prevention and mitigation
- Access control and facility security requirements
- Adjacent hazard requirements including railroads, roadways, utilities, hazmat facilities, oil and gas wells, and wind turbines
- Other design requirements including intrusion protection strategies, utilities, third parties, electrical hazards, and communications

3.11.2.3 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. The city of Orange is also with the RSAs. Table 3.11-1 lists local plans and policies that were identified and considered for analysis.

Table 3.11-1 Regional and Local Plans and Policies

Policy Title	Summary
Southern California	
SCAG Regional Comprehensive Plan, Security and Emergency Preparedness (2008)	SCAG adopted the *2008 Regional Comprehensive Plan* in 2008. The plan includes the following Security and Emergency Preparedness Goals: ▪ Goal 1: Ensure transportation safety, security, and reliability for all people and goods in the region. ▪ Goal 2: Prevent, protect, respond to, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property, the transportation network and the regional economy.
SCAG 2024-–2050 Connect SoCal Regional Transportation Plan/Sustainable Communities Strategy (2024)	SCAG adopted *Connect SoCal: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy* in April 2024. Policies relevant to safety and security include: ▪ Policy 22. Eliminate transportation-related fatalities and serious injuries (especially those involving vulnerable road users, such as people, especially older adults and children, walking and biking) on the regional multimodal transportation system ▪ Policy 23. Integrate the assessment of equity into the regional transportation safety and security planning process, focusing on the analysis and mitigation of disproportionate impacts on disadvantaged communities ▪ Policy 24. Support innovative approaches for addressing transit safety and security issues so that impacts to transit employees and the public are minimized and those experiencing issues (e.g., unhoused persons) are supported ▪ Policy 25. Support the use of transportation safety and system security data in investment decision-making, including consideration of new highway and transit/rail investments that would address safety and security needs

Policy Title	Summary
Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency Business Plan FY 2024–2025 to 2025–2026 (2024)	The LOSSAN Rail Corridor Agency adopted its FY 2024–2025 to FY 2025–2026 Business Plan in April 2024. The plan includes the following goals that are relevant to safety and security: ▪ The goal of the LOSSAN Corridor Agency safety program is to instill a comprehensive safety culture that will govern all of the activities associated with the operations and maintenance of the service, while efficiently meeting operational performance goals.
Los Angeles County	
Los Angeles County 2035 General Plan, Safety Element (2025)	The County of Los Angeles adopted the *Los Angeles County General Plan 2035* Safety Element on July 12, 2022, and last updated it on April 15, 2025. The 2035 general plan includes the following goals and policies applicable to safety and security: ▪ Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards. ▪ Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to flood and inundation hazards. ▪ Goal S 4: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards. – Policy S 4.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials, vegetation management, fuel modification and other fire hazard reduction programs. – Policy S 4.14: Encourage the strategic placement of structures in FHSZs that conserves fire suppression resources, increases safety for emergency fire access and evacuation, and provides a point of attack or defense from a wildfire. – Policy S 7.1: Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information. – Policy S 7.3: Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning. – Policy S 7.5: Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.
Los Angeles County Operational Area Terrorism Plan (2003)	The *Los Angeles County Operational Area Terrorism Plan* was adopted in 2003. The objective of the plan is to establish policies and procedures to guide the Los Angeles County OA in planning for and responding to an emergency caused by an actual or suspected act of terrorism.

Policy Title	Summary
Los Angeles County Operational Area Emergency Operations Plan (2023)	The County of Los Angeles approved the *Los Angeles County Operational Area Emergency Operations Plan* in November 2023. The *Los Angeles County Operational Area Emergency Operations Plan* addresses the OA's coordinated response to emergency situations associated with natural, man-made, and technological incidents. The OA is defined as Los Angeles County and its political subdivisions. The objective of the plan is to integrate OA resources to be an efficient organization capable of responding to emergencies using the National Incident Management System, Standardized Emergency Management System, mutual aid, and other appropriate response procedures. The emergency response plan includes the following priorities applicable to safety and security: ▪ Save Lives: The preservation and sustainment of life is the top priority of emergency response and takes precedence over all other considerations. ▪ Protect Health and Safety: Measures should be taken to mitigate the emergency's impact on public health and safety. ▪ Protect Property: All feasible efforts must be made to protect public and private property and resources from damage during and after an emergency. ▪ Preserve the Environment: All possible efforts must be made to preserve the environment and protect it from damage during an emergency.
Los Angeles County All-Hazards Mitigation Plan (2020)	The *2020 County of Los Angeles All-Hazards Mitigation Plan* sets strategies for coping with the natural and manmade hazards faced by residents. The plan is a compilation of information from county departments correlated with known and projected hazards that face Southern California. It addresses potential damages in the unincorporated portions of the county as well as to county facilities. The plan conforms to the requirements of the Federal Emergency Management Agency and the Governor's Office of Emergency Services. Elements of the plan include the all-hazards mitigation plan planning process, community profile (planning area), hazard identification and risk assessment, mitigation strategy, and plan review, evaluation, and implementation.
Los Angeles County Code of Ordinances (2025)	The declared purposes of Chapter 2.68: Emergency Services of the *Los Angeles County Code of Ordinances* are to provide for the preparation and execution of plans for the protection of life and property within Los Angeles County in the event of an emergency; the establishment, coordination, and direction of the Los Angeles County OA and emergency organization; the establishment, coordination, and direction of the Los Angeles County Emergency Management Council; the establishment, coordination, and direction of the Los Angeles County Office of Emergency Management; and the coordination of the preparatory and emergency functions of the county with those of all other public agencies, organizations, and individuals.

Policy Title	Summary
City of Los Angeles	
City of Los Angeles General Plan, Safety Element, Mobility Element (2024)	The City of Los Angeles approved the *City of Los Angeles General Plan* in 2001 and last updated it in 2024. The Mobility Element was updated in September 2016, and the Safety Element was updated in November 2021. The general plan includes the following goals and policies applicable to safety and security: ▪ Safety Goal 1: A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to fire, water related hazard, seismic event, geologic conditions or release of hazardous materials disasters is minimized. ▪ Safety Goal 2: A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage and disruption of the social and economic life of the City and its immediate environs. ▪ Safety Policy 3.1.1 Coordination. Coordinate with each other, with other jurisdictions and with appropriate private and public entities prior to a disaster and to the greatest extent feasible within the resources available, to plan and establish disaster recovery programs and procedures which will enable cooperative ventures, reduce potential conflicts, minimize duplication and maximize the available funds and resources to the greatest mutual benefit following a disaster. ▪ Mobility Policy 1.5: Reduce conflicts and improve safety at railroad crossings through design, planning, and operation.
City of Los Angeles Local Hazard Mitigation Plan (2024)	The City of Los Angeles developed the *Local Hazard Mitigation Plan* to reduce risks from disasters to the people, property, economy, and environment within the city. The plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency grant programs. The following goals were established: 1. Protect life and property, including protecting the health and safety of communities. 2. Engage the whole community to better understand the hazards affecting Los Angeles and ways to reduce personal vulnerability to those hazards. 3. Align the City of Los Angeles hazard mitigation plan with future climate vulnerability assessments, action plans, and all levels of government's hazard mitigation goals. 4. Develop and implement hazard mitigation strategies that use public funds in an efficient and cost-effective way. 5. Strive to increase adaptive capacity to reduce risk from hazard impacts based on future conditions.

Policy Title	Summary
City of Los Angeles Emergency Operations Plan, Terrorism Prevention and Protection, Hazard Specific Annex (2018)	The Terrorism Prevention and Protection Annex to the *City of Los Angeles Emergency Operations Plan* provides guidance for the development of specialized standardized operating procedures for incidents of terrorism. The annex has been developed to meet the following objectives: ▪ Provide a concept of operations and identify roles and responsibilities for each appropriate department within the city of Los Angeles specific to the hazard. ▪ Identify methods and procedures necessary for the rapid notification of city departments and the public when a terrorism threat is verified. ▪ Identify actions that can realistically be accomplished within a few hours to a few days to mitigate any adverse impact. ▪ Ensure consistency with federal, State of California, the Los Angeles County operational area, and other local governments emergency response plans and operations.
City of Vernon	
City of Vernon General Plan, Safety Element (2023)	The City of Vernon approved the *City of Vernon General Plan* in 2007, amended the Safety Element in 2015, and amended the general plan in 2023. The Safety Element includes the following goals and policies applicable to safety and security: ▪ Policy S-1.2: Cooperate with other jurisdictions in the southeast area of Los Angeles County to maintain an up-to-date emergency response system for the region. ▪ Policy S-1.5: Coordinate with the Los Angeles Unified School District for protection and or evacuation of school children in the event of an emergency condition, which could affect the schools in or near Vernon. ▪ Goal S-3: Maintain high standards for the provision of City emergency services. ▪ Policy S-4.1: Review the risks related to a possible train derailment or collision and develop appropriate response programs. ▪ Policy S-4.3: Design and maintain an effective plan for the prompt evacuation of the City in the event of a dam inundation or other major disaster requiring the removal of workers or residents from Vernon.
City of Vernon 2023 Local Hazard Mitigation Plan (2023)	The City of Vernon *2023 Local Hazard Mitigation Plan* was adopted in 2023 and provides a set of action items to reduce risk from natural hazards through education and outreach programs, and to coordinate the implementation of preventive activities such as land use programs that restrict and control development in areas subject to damage from natural hazards. The plan includes a spatial assessment of hazards and identifies mitigation measures.

Policy Title	Summary
City of Bell	
City of Bell 2030 General Plan, Health and Safety Element (2022)	The City of Bell approved the *City of Bell General Plan Health and Safety Element* in 2018. The general plan, last updated in 2022, includes the following goals and policies applicable to safety and security: ▪ Policy 3. The City of Bell shall review and improve its disaster preparedness and emergency response capabilities. The Emergency Plan shall undergo a periodic review and update to ensure it remains current. ▪ Policy 8. The City of Bell shall strive to protect life and property from fire damage through the enforcement of applicable building and fire codes and Code Enforcement inspections. ▪ 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. ▪ 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. ▪ Policy 14. The City of Bell shall incorporate defensible space, lighting and safety design principles, and other security measures into new development in the City.
City of Commerce	
City of Commerce 2020 General Plan,[1] Safety Element (2008)	The City of Commerce approved the *City of Commerce General Plan* in January 2008. The Safety Element includes the following goals and policies applicable to safety and security: ▪ Safety Policy 1.1. The city of Commerce will strive to respond to all in-city emergency incidents within a five-minute or less response time. ▪ Safety Policy 1.2. The city of Commerce will continue to support the efforts of the fire department in the prevention and suppression of fires. ▪ Safety Policy 2.5. The city of Commerce will encourage existing developments to practice crime prevention by providing outdoor lighting, maintaining low-level landscaping, and supplying private on-site security patrols or security systems. ▪ Safety Policy 4.2. The city of Commerce will work with other agencies to reduce the potential flood hazard in the city. ▪ Safety Policy 5.2. The city of Commerce will continually update the emergency preparedness plan to respond to changing needs.

Policy Title	Summary
City of Montebello	
City of Montebello General Plan, Our Safe Community (2024)	On April 10, 2024, the Montebello City Council adopted a comprehensive update to the General Plan (the "2040 General Plan"). Our Safe Community was also updated in 2024 and outlines the following policies applicable to safety and security: ▪ Policy 6.1 Promote crime prevention strategies. ▪ Policy 6.3 Prevent bicycle and pedestrian accidents. ▪ Policy 6.4 Provide a high level of fire protection service in the community. ▪ Policy 6.7 Identify and appraise the geologic and seismic hazards within the community. Reduce the loss of life, damage to property, and the economic and social dislocations resulting from future earthquakes. ▪ Policy 6.8 Provide protection from wild and urban fire hazards to persons, property, and city assets. ▪ Policy 6.9 Minimize the risks from flooding and related hazards to persons, property, and city assets. ▪ Policy 6.12 Take necessary steps to establish and maintain the City's capability to respond promptly and effectively to emergencies. ▪ Policy 6.13 Plan for efficient and rapid recovery from disasters.

Policy Title	Summary
City of Pico Rivera	
City of Pico Rivera General Plan, Community Facilities Element, Safety Element, Healthy Community Element (2014)	The *City of Pico Rivera General Plan* Community Facilities Element includes the following policies applicable to safety and security: ▪ Policy 6.2-7 Crime Prevention Programs. Maintain an array of community-based service and education programs designed to prevent crime, including Neighborhood Watch Programs and the P.R.I.D.E. youth program. ▪ Policy 6.3-6 Review of Development Proposals. Continue to include the Fire Department in the review of development proposals to ensure that projects adequately address safe design and on-site fire protection. The Safety Element includes the following goals and policies applicable to safety and security: ▪ Policy 9.1-3 Infrastructure. Encourage property owners, Caltrans, the railroads, and local utility companies to regularly inspect and strengthen (as needed) infrastructure susceptible to failure during an earthquake. ▪ Policy 9.2-3 Adequate Capacity for New Development. Require new development to demonstrate the availability of adequate capacity in the storm drainage system to accommodate projected flows and not exacerbate existing deficiencies. ▪ Policy 9.4-1 Emergency Management Division. Continue to support the efforts of the City's Emergency Management Division to prepare for, mitigate against, respond to, and recover from disasters and emergencies. ▪ Policy 9.4-2 Emergency Management Plans. Maintain a Standardized Emergency Management System/National Incident Management System Emergency Operation Plan and Multi-Jurisdictional Hazard Mitigation Plan in coordination with local, state and federal agencies and organizations. The Healthy Community Element includes the following policy applicable to safety and security: ▪ Policy 10.3-5 Rail Crossings. Continue to work with railroad companies and appropriate agencies to create railroad grade separations to increase safety, while taking steps to make the existing at-grade rail crossings safer for pedestrians and vehicles.

Policy Title	Summary
City of Santa Fe Springs	
Re-Imagine Santa Fe Springs 2040 General Plan, Safety Element (2022)	The City of Santa Fe Springs released *Re-Imagine Santa Fe Springs 2040 General Plan* in 1994 and updated it in 2022. The general plan includes the following goals and policies applicable to safety and security: ▪ Policy S-1.5: Seismic Standards. Ensure that all new development adheres to City and State seismic and geotechnical standards. ▪ Policy S-4.2: New Development Risks. Evaluate developments and other intensification of uses for a potential increase to the level of fire risk, susceptibility to urban fires, and exposure to high-level fire. ▪ Policy S-6.2: Emergency Preparedness Plans. Regularly review and update emergency preparedness and operations plan to create up to-date disaster management systems. Include in the plans evacuation planning approaches that responds to a multitude of emergency conditions and locations. ▪ Policy S-7.6: Fire Suppression Systems. Regulate and enforce the installation of fire protection water system standards for new construction projects, including the installation of fire hydrants providing adequate fire flow, fire sprinklers, suppression systems, and methane monitoring. ▪ Policy S-9.6: Crime Prevention in Project Design. Incorporate consideration of public safety in the review of new developments such as site planning, lighting, and active transportation, including the implementation of Crime Prevention through Environmental Design principles in the design of private development projects and public facilities.
City of Santa Fe Springs Natural Hazards Mitigation Plan (2004)	The mission of the *Natural Hazards Mitigation Plan* is to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural hazards. This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the city toward becoming a Disaster Resistant Community. The *Natural Hazards Mitigation Plan* focuses on potential impacts of earthquakes and floods, which were identified as the most prominent hazards facing the community. It includes an assessment of these natural hazards, a plan to mitigate the hazards, and methods for monitoring.

Policy Title	Summary
City of Norwalk	
Vision Norwalk – The City of Norwalk General Plan,[1] Safety Element (2023)	The City of Norwalk adopted *Vision Norwalk – The City of Norwalk General Plan* in 1996 and updated it in 2023. The general plan includes the following goals and policies applicable to safety and security: ▪ Core Strategy 1: To ensure a safe, secure and vibrant community, the City will implement comprehensive law enforcement programs that build strong relationships with stakeholders, increase citizen engagement, and utilize innovative technology. ▪ Objective A: Enhance and strengthen the quality of life in Norwalk by providing residents with safety and security through the use of innovative law enforcement and public safety services. ▪ Objective B: Provide the community with emergency preparedness information for self-sufficiency in the event of a disaster. ▪ Safety Element (1996): – Goal: To ensure the availability and effective response of emergency services. – Safety from Natural and Man Made Hazards Objective: To avoid unnecessary exposure to hazards and continue operation of critical facilities after an emergency. – Safety from Natural and Man Made Hazards Policy: Adopt and maintain high standards for seismic performance of buildings through prompt adoption and careful enforcement of appropriate building codes for seismic design. – Safety from Natural and Man Made Hazards Policy: New development and other land use entitlements should be reviewed by emergency response agencies to ensure that public safety can be adequately provided.
City of La Mirada	
City of La Mirada General Plan, Circulation Element, Safety and Community Services Element (2003)	The City of La Mirada adopted the *City of La Mirada General Plan* in 2003. The general plan includes the following goals and policies applicable to safety and security: ▪ Circulation Goal 4: Maintain a safe and efficient railroad system. ▪ Safety and Community Services Goal 1: Reduce the risk of danger related to seismic hazards. ▪ Safety and Community Services Goal 2: Maintain adequate flood hazard prevention. ▪ Safety and Community Services Policy 4.1: Keep the City's Emergency Operations Plan up-to-date and relevant to the types of disasters affecting the community. ▪ Safety and Community Services Policy 8.1: Provide residents and the business community with a high level of fire, police, and other public safety services.

Policy Title	Summary
Orange County	
County of Orange General Plan, Safety Element (2025)	The County of Orange approved the *County of Orange General Plan* in July 2014 and updated it in 2025. The general plan includes the following goals and policies applicable to safety and security: ▪ 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. ▪ Crime Policy 2: To provide coordination to all agencies within the County to assist in the prevention of crime. ▪ Fire Goal 1: Provide a safe living environment, ensuring adequate fire protection facilities and resources to prevent and minimize the loss of life and property fire. ▪ Natural Hazards Goal 2: Minimize the effects of natural safety hazards through implementation of appropriate regulations and standards which maximize protection of life and property. ▪ Flood Hazards Goal 1: Provide effective and efficient flood protection throughout Orange County. ▪ Seismic Safety and Geologic Hazards Policy 2: To continue the development and implementation of earthquake mitigation, preparedness, response, and recovery through the Emergency Management Council and Orange County Operational Area.
County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan (2021)	The County of Orange and Orange County Fire Authority updated the *Local Hazard Mitigation Plan* in December of 2021. The plan focuses on mitigating all natural hazards affecting unincorporated areas of the County as well as County and Orange County Fire Authority owned facilities. The *Local Hazard Mitigation Plan* includes resources and information to assist county residents, public and private sector organizations, and others interested in participating in planning for natural hazards. The mitigation plan provides a list of activities that may assist the county in reducing risk and preventing loss in future hazard events. The mitigation action items address multihazard issues and specific activities for floods/storms, wildland fires, earthquakes, dam failure, epidemics, urban fires, vector control, mud/landslides, tornadoes, and tsunami.
Orange County Emergency Operations Plan (2014)	The County of Orange adopted the County of Orange Emergency Operations Plan in May 2014. The Emergency Operations Plan identifies the County's emergency planning, organization, response policies, and procedures. The plan also addresses integration and coordination with other governmental levels when required. The plan addresses how the County will respond to extraordinary events or disasters, from the preparedness phase through recovery, and identifies the roles and responsibilities of each county department. The plan is based on the functions and principles of the Standardized Emergency Management System, Incident Command System, and the National Incident Management System.
Unified County of Orange and Orange County Operational Area Emergency Operations Plan (2019)	The County of Orange updated the *Unified County of Orange and Orange County Operational Area Emergency Operations Plan* in February 2019. The plan provides guidance and procedures for the Orange County OA to prepare for and respond to natural, technological, conflict-related, and human-caused incidents creating situations requiring a coordinated response. The plan addresses rail accident hazards including mass casualty, hazardous materials release, fire, and evacuations.

Policy Title	Summary
City of Buena Park	
Buena Park 2035 General Plan, Safety Element, Mobility Element, Community Facilities Element (2022)	The City of Buena Park adopted the *Buena Park 2035 General Plan* in 2010 and updated it in 2022. The general plan includes the following goals and policies applicable to safety and security: ▪ Goal SAF-1: Decrease in the potential risk of seismic and geologic hazards to the community. ▪ Policy SAF-1.4: Require appropriate mitigation measures and/or conditions of approval relative to terrain, soils, slope stability, and erosion for new development or redevelopment in order to reduce hazards. ▪ Goal SAF-2: Provision of adequate flood protection to protect the community. ▪ Goal SAF-3: A reduction in the potential for loss of life and property from natural and man-made disasters. ▪ Policy M-1.5: Discourage future at-grade crossing between surface streets and railroads. ▪ Policy CF-1.1: Continuously improve the performance and efficiency of the Police Department. ▪ Policy CF-1.2: Maintain adequate personnel resources and facilities to enable the Police Department to meet response time standards, keep pace with growth, and provide high levels of service. ▪ Policy CF-2.2: Ensure adequate fire-fighting and Emergency Medical Service infrastructure, equipment, and personnel to provide a high level of fire and emergency medical service in Buena Park to meet growing demands.
City of Fullerton	
The Fullerton Plan Growth Management; Public Safety (2025)	The City of Fullerton adopted *The Fullerton Plan* in 2012 and last updated it in 2025. The general plan includes the following goals and policies applicable to safety and security: **Growth Management Goal 7**: Growth and development aligned with infrastructure capabilities *Region/Subregion Level* ▪ P7.1 Balanced Decision Making: Require that all new development and major redevelopment have adequate infrastructure in place to support daily demands and emergency response capabilities. ▪ A7.1(a) Develop a program which evaluates the emergency infrastructure capabilities of potential development sites prior to issuance of construction permits. *City Level* ▪ P7.2 Housing Growth: Require that all new development and major redevelopment be located in areas previously identified as having adequate infrastructure capacity to accommodate future housing requirements. ▪ P7.2.1 Adequate Infrastructure: Require that new development and major redevelopment are appropriate in scale to current and planned infrastructure capabilities, if not, require infrastructure upgrades are completed prior to issuance of certificate of occupancy. **Public Safety Goal 12:** Proactively addressing public safety concerns. *Region/Subregion Level* ▪ P12.1.1 Encourage Regional Cooperation: Encourage regional partnerships and mutual aid agreements between the City and other agencies/entities,

Policy Title	Summary
	further strengthening emergency response capabilities within the City and region. *City Level* ▪ P12.3.3 Evacuation Outreach/Education Conduct public outreach and educational activities associated with emergency evacuation routes and procedures, prioritizing efforts towards at-risk populations. ▪ P12.3.4 Emergency Planning Outreach: Publicize and participate in disaster preparedness exercises and distribute emergency planning information to residents and business owners. ▪ P12.4 Balance Safety Needs: Support policies, projects, programs, and regulations that balance the need to reduce vehicle accidents, injuries, and deaths through traffic calming and street design with the need to facilitate emergency response times ▪ P12.7.1 THIRA: Support projects, programs, policies and regulations that facilitate the preparation of a THIRA (Threat and Hazard Identification Risk Assessment) plan in accordance with FEMA guidelines that allows Fullerton to plan for and address the risks of human-caused hazards. ▪ P12.7.2 Periodic Updates Periodically update and incorporate the THIRA into the Local Hazard Mitigation Plan (LHMP) and Emergency Operations Plan (EOP) updates. *Neighborhood/District Level* ▪ P12.8 Airport Safety Standards: Support policies, projects, programs and regulations that provide for safe and efficient airport operations through compliance with the Fullerton Municipal Airport (FMA) Master Plan and the Airport Land Use Commission for Orange County's Airport Environs Land Use Plan for FMA and the Airport Environs Land Use Plan for Heliports. ▪ P12.9 Neighborhood Safety Strategy: Support policies, projects, programs and regulations that strengthen partnerships and community-based efforts, such as Neighborhood Watch, to reduce crime through prevention, education and enforcement, and encourage communities to build block-by-block networks to prevent crime, develop social ties and solve common problems. ▪ P12.12.1 Emergency Response Capability: Maintain a high level of emergency response capability. – A12.12.1(a) Ensure annual budgeting cycles account for current and future emergency service needs. – A12.12.1(b) Periodically assess and update the City's priorities for future emergency service needs. ▪ P12.12.2 Maintenance and Training: Support enhancements to fire service through the maintenance of fire equipment and the training of fire personnel. ▪ P12.12.3 Emergency Management Planning: Coordinate the City's emergency management planning with local jurisdictions and regional agencies to anticipate cumulative impacts during times of disaster. *Project Level* ▪ P12.13 Safety through Design: Support policies, projects, programs and regulations that make crime prevention and the maintenance of public safety service levels considerations in design and management of existing and new private and public spaces. **Public Safety Goal 13:** Responsive to public safety needs. *City Level*

Policy Title	Summary
	▪ P13.2 Adequate Resources for Emergencies: Support policies and programs that ensure adequate resources are available in all areas of the City to respond to health, fire and police emergencies. – A13.2 (a) Ensure emergency personnel are included in the development review process to ensure that new development adequately addresses service levels, security concerns, and safety. ▪ P13.3 Disaster Hazard Reduction Support: policies, projects, programs and regulations that reduce structural and nonstructural hazards to life safety and minimize property damage and resulting social, cultural and economic dislocations resulting from future disasters. ▪ P13.4 Disaster Risk Reduction: Support programs that promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response. ▪ P13.4.1 Post-Disaster Recovery Expand and enhance the strategy for post-disaster recovery that focuses on community resilience, sustainability, and an evaluation for redevelopment potential following a major disaster. ▪ P13.5.3 Functionality in Hazardous Events: Maintain functionality, make improvements, and expand the capacity, where feasible, of the existing emergency evacuation routes within the City, taking into account current and future natural and human caused hazards. ▪ P13.5.4 Community Outreach for Evacuation: Conduct public outreach and educational activities associated with emergency evacuation routes and procedures, prioritizing efforts towards at-risk populations. ▪ P13.5.7 Emergency Evacuation Capacity: Maintain functionality, make improvements, and expand the capacity, where feasible, of the existing emergency evacuation routes within the City, taking into account current and future natural and human caused hazards.
City of Fullerton Local Hazard Mitigation Plan (2020)	The *Fullerton Local Hazard Mitigation Plan* identifies threats from natural and human-caused hazards in the community and recommends specific actions to proactively decrease those threats. The Federal Emergency Management Agency approved the city's latest plan update and the plan was adopted by the Fullerton City Council May 19, 2020.
Airport Environs Land Use Plan for Fullerton Municipal Airport (2019)	The plan includes the following goals and policies applicable to safety and security: ▪ 3.2.1 General Policy: The General Land Use policy of the Airport Land Use Commission for Orange County shall be: Within the boundaries of the AELUP, any land use may be found to be Inconsistent with the AELUP which: (1) Places people so that they are affected adversely by aircraft noise, (2) Concentrates people in areas susceptible to aircraft accidents, (3) Permits structures of excessive height in areas which would affect adversely the continued operation of the airport, or (4) Permits activities or facilities that would affect adversely aeronautical operations Adverse effects of aircraft noise are defined by the "reasonable person" concept presented in the Noise Standards for California Airports, Title 21 of the California Code of Regulations (Appendix H). Adverse effects of aircraft noise include single event noise disturbances to which people near airports are subjected.

Policy Title	Summary
	A concentration of people in an area susceptible to aircraft accidents is defined as a number of people situated on the ground so as to increase the potential magnitude of a major crash catastrophe (i.e., a larger number of fatalities or injuries than otherwise may occur). Adverse effect of structure height refers to a structure of such height and/or location that its existence would threaten the continued operation of the airport, or would decrease the airport's utility, such as by creating an obstacle in the flight paths or other aircraft traffic patterns employed at the airport, or by interfering with visual or electronic navigation systems. Adverse effect of activities or facilities refers to a land use that would hamper aeronautical operations within the boundaries of the AELUP of an airport by producing or causing excessive glare, light, steam, smoke, dust or electronic interference, or by attracting birds. Any land use which is in conformance with this general policy shall be consistent with the AELUP. Any land use which is not in conformance with this general policy shall be inconsistent with the AELUP. ▪ 3.2.5 Land Use Runway Protection Zone "RPZ," Extreme Crash Hazard: The severe potential for loss of life and property due to accidents prohibits most land uses in this area. Also, the close proximity to aircraft operations limits land uses which would endanger such operations. Only airport-related uses and open space uses, including agriculture and certain types of transportation and utility uses are permitted. No buildings intended for human habitation are permitted in the RPZ. Furthermore, because of the proximity to aeronautical operations, uses in this area must not attract birds nor emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, aeronautical operations. ▪ 3.2.7 Accident Potential Zone II "APZ II," Limited Crash Hazard: The potential for loss of life and property due to aircraft accidents is sufficient to require density and intensity of use restrictions in this zone. In accordance with the General Policy, the Commission would find unacceptable any land use where lot coverage exceeded seventy-five (75) percent or where more than two hundred (200) persons were placed for long periods in an open assembly area or in a structure (i.e., a free-standing building). Most forms of open space, industrial, commercial, and airport-related uses are acceptable, whereas residential and public facilities (schools, churches, etc.) are not acceptable. Furthermore, because of the proximity to aeronautical operations, uses in this area must not emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, aeronautical operations. ▪ 3.2.8 Height Restriction Zone: Any object, which by reason of its height or location would interfere with the established, or planned, airport flight procedures, patterns, or navigational systems, is unacceptable to the Commission. Similarly, any proposal which would cause a diminution in the utility of an airport is unacceptable to the Commission. The standards, criteria, and procedures promulgated by the FAA for the thorough evaluation of development projects are designed to ensure the safe and efficient use of the navigable airspace. The application of these principles by the Commission will ensure the stability of local air transportation, as well as promote land uses that are compatible with the airport environs. However, any object which rises above the height of surrounding development, or which is located in close proximity to any of the various flight paths, must be clearly visible during hours of twilight or darkness and must not threaten, endanger, or interfere with aeronautical operations. Such objects, even if within the above height

Policy Title	Summary
	restrictions, are not acceptable to the Commission unless they are clearly marked or lighted according to FAA standards.
City of Anaheim	
City of Anaheim General Plan, Safety Element, Circulation Element (2025)	The City of Anaheim adopted the *General Plan for the City of Anaheim* in 2009 and last updated it on April 22, 2025. The Safety Element was last updated on January 10, 2023. The general plan includes the following goals and policies applicable to safety and security: ▪ Geologic and Seismic Safety Policy 1: Minimize the risk to public health and safety and disruptions to vital services, economic vitality, and social order resulting from seismic and geologic activities. ▪ Geologic and Seismic Safety Policy 3: Require geologic and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental and/or development review process for all structures. ▪ Urban and Wildland Fire Hazards Policy 2: Effectively enforce City and State regulations within the VHFHSZ and incorporate new techniques and best practices as they become available to reduce future risks to existing and new developments. ▪ Urban and Wildland Fire Hazards Policy 4: Minimize urban and wildland fire exposure for residents, business owners, and visitors by incorporating Fire Safe Design into existing and news developments. ▪ Hazard Materials and Wastes Policy 6: Employ effective emergency preparedness and emergency response strategies to minimize impacts from hazardous materials exposures and releases. ▪ Hazard Materials and Wastes Policy 7: Partner with Orange County to provide needed hazardous waste programs to provide disposal of household hazardous waste at no cost to residents and participating agencies. ▪ Climate Change Policy 3: Require new development within a designated floodplain or fire hazard severity zone to submit fire and/or flood safety plan for approval by the Fire Department and Floodplain Administrator. ▪ Climate Change Policy 4: Continue to ensure emergency alert/ notification capabilities meet the City's future needs by providing alerts about potential, developing, and ongoing emergency situations. ▪ Emergency Preparedness and Public Awareness of Community Risks Policy 1: Ensure the availability of both the Safety Element and Emergency Operations Plan to employers and residents of Anaheim. The City of Anaheim's Circulation Element was adopted in 2004 and updated in 2025. It includes the following goals and policies applicable to safety and security: ▪ Goal 2.2: Provide a safe circulation system – Policy 11: Implement arterial grade separations at railroad crossings. ▪ Goal 6: Support efforts to enhance transportation safety – Continue to plan for and implement emergency vehicle and fire truck access and pre-emption requirements

Policy Title	Summary
City of Anaheim Local Hazard Mitigation Plan (2022)	The *Local Hazard Mitigation Plan* identifies and assesses the city's risks for natural disasters and how to best minimize or manage those risks. The plan is a comprehensive review of the natural disasters that are most likely to occur in Anaheim and projects that the city can undertake to mitigate those risks. Some of these actions include education and outreach programs and the development of partnerships. The plan also provides for the implementation of preventive activities, including programs that restrict and control development in areas subject to damage from hazards.
City of Orange	
Orange General Plan, Public Safety Element (2025)	The Orange City Council adopted the *Orange General Plan* on March 9, 2010, and last updated it in 2025. The Public Safety Element includes the following goals and policies applicable to safety and security: ▪ Policy 6.2: Provide resources for additional police services as needed to maintain average response times. ▪ Policy 6.3: Provide and use up-to-date technology to improve crime prevention, fire suppression, and emergency services. ▪ Policy 6.4: Continue to support, develop, and implement programs which improve the City's approach to fighting crime. ▪ Policy 6.7: Maintain and update the City's Emergency Operations Plan, as needed, and ensure ongoing consistency between the General Plan and the Emergency Operations Plan and Fire Department Strategic Deployment Plan. ▪ Policy 8.3: Coordinate emergency response and preparedness planning with other cities and public agencies in the region. ▪ Policy 8.4: Develop and maintain a fully functioning Emergency Operations Center, and adequate and up-to-date emergency preparedness resources and plans. ▪ Policy 9.3: Identify and attempt to remove impediments to pedestrian and bicycle access including those associated with rail, street, freeway, and waterway crossings and poorly marked or maintained pathways and sidewalks.

Sources: City of Anaheim 2022, 2025a; City of Bell 2022; City of Buena Park 2022; City of Commerce 2008; City of Fullerton 2020a, 2025; City of La Mirada 2003; City of Los Angeles 2018, 2024a, 2024b; City of Montebello 2024a; City of Norwalk 2023; City of Orange 2025; City of Pico Rivera 2014; City of Santa Fe Springs 2004, 2022a; City of Vernon 2023a, 2023b; County of Los Angeles 2003, 2020, 2023, 2025a, 2025b; County of Orange 2014, 2019, 2021, 2025; LOSSAN Rail Corridor Agency 2024; Orange County Airport Land Use Commission 2019; SCAG 2008, 2024

[1] This plan is currently undergoing an update as of January 2025.

AELUP = Airport Environs Land Use Plan; Authority = California High-Speed Rail Authority; Caltrans = California Department of Transportation; FAA = Federal Aviation Administration; FHSZ = fire hazard severity zone; FY = fiscal year; LOSSAN = Los Angeles – San Diego – San Luis Obispo; Metro = Los Angeles County Metropolitan Transportation Authority; OA = Operational Area; P.R.I.D.E. = Pico Rivera Individual Development & Ethics; SCAG = Southern California Association of Governments; VHFHSZ = Very High Fire Hazard Severity Zone

Airport Plans

Airport Master Plans and compatibility plans provide guidance for land use and facilities planning that reduce safety risks on the ground in airport influence zones. There is one public-service airport within 2 miles of the project section: Fullerton Municipal Airport in Orange County, less than 0.1 mile from the project section. There are no public airports within 2 miles of the RSAs other than Fullerton Municipal Airport. Table 3.11-1 includes the applicable goals and policies from the *Airport Environs Land Use Plan for Fullerton Municipal Airport* (Orange County Airport Land Use Commission 2019) and the applicable goals and policies relevant to airport safety from *The Fullerton Plan* (2025).

Other Requirements

State and local safety requirements may incorporate NFPA Codes and Standards. The NFPA develops, publishes, and disseminates more than 300 codes and standards intended to reduce the possibility and impacts of fire and other risks. Technical Memorandum 2.8.1, *Safety and Security Design Requirements for Infrastructure Elements*, incorporates several NFPA codes and standards (Authority 2013a). For example, Technical Memorandum 2.8.1 relies on NFPA *130-2010: Standard for Fixed Guideway and Passenger Rail Systems* (NFPA 2010) to specify guidance on incorporating passenger safety in system design; egress routes in the event of an emergency; emergency response planning, training, and operations; and fire and smoke prevention and suppression. Additionally, NFPA 1710—*Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments* (NFPA 2020) includes measures to protect citizens and the occupational safety and health of fire department employees.

Criminal Laws

Criminal activity associated with criminal trespass and mischief/vandalism in the RSAs is currently enforced by the California Penal Code. These laws are listed below.

- **California Penal Code 602:** This law prohibits the crime known as trespassing, which is punishable with a misdemeanor.
- **California Penal Code 594:** This law prohibits the malicious destruction, defacement, or damage to property not his or her own.

3.11.3 Consistency with Plans and Laws

As indicated in Section 3.1.5.3, Consistency with Plans and Laws, CEQA and NEPA require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws. CEQA and the FRA's NEPA implementing procedures require the discussion of any inconsistency or conflict between a proposed action and federal, state, regional, or local plans and laws. Where inconsistencies or conflicts exist, the Authority must provide a description of the extent of reconciliation and the reason for proceeding if full reconciliation is not feasible under NEPA, and must discuss the inconsistencies between the proposed project and applicable general plans, specific plans and regional plans under CEQA (State CEQA Guidelines Section 15125(d)).

Several federal and state laws, listed in Section 3.11.2.1, Federal, and Section 3.11.2.2, State, pertain to safety and security. Pursuant to U.S. Code Title 23 Section 327, under the NEPA Assignment Memorandum of Understanding between 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, as the lead agency proposing to build and operate the HSR system, is required to comply with all federal and state laws and regulations and to secure all applicable federal and state permits prior to initiating construction and operation of the selected alternative.

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.

Review of local plans and policies listed in Table 3.11-1 identified inconsistencies of the Shared Passenger Track Alternatives with certain provisions of the following plans:

- **City of Anaheim General Plan** (City of Anaheim 2024a): Level of Service Analysis Goal 2.2, Policy 11: *Implement arterial grade separations at railroad crossings*. The project section would be inconsistent with this policy because it would maintain eight at-grade crossings between surface streets and railroads in Anaheim, potentially increasing emergency response times and the time it would take to cross HSR tracks. Potential environmental impacts of at-grade crossings are addressed in Impact SS-5: Accidents Associated with Construction-Related Detours and Traffic Hazards.

- **Airport Environs Land Use Plan for Fullerton Municipal Airport (Orange County Airport Land Use Commission 2019) and *The Fullerton Plan* (2025) Policy P12.8, Airport Safety Standards:** A portion of the project alignment would be adjacent to Fullerton Municipal Airport. This area would require a below-grade braced trench configuration to avoid conflicts from the project section track and HSR operations with the surface-level Fullerton Municipal Airport runway protection zone (RPZ) and the height restrictions established by FAA regulations Part 77. By designing the project section to run below grade near Fullerton Municipal Airport, potential conflicts with surface-level height restrictions identified in the plan (Orange County Airport Land Use Commission 2019) would be minimized; however, the project would still require FAA review and approval. The project section is incompatible with the *Airport Environs Land Use Plan for Fullerton Municipal Airport* and *The Fullerton Plan* (2025) Policy 12.8, which refers to the *Airport Environs Land Use Plan for Fullerton Municipal Airport*, because the project section would place new passenger rail within the Fullerton Municipal Airport RPZ. The inconsistency is related to the potential placement of people in areas susceptible to aircraft accidents within the RPZ. Project section construction within the RPZ would be subject to FAA review.

In accordance with project design measure **SS-IAMF#2**, **Safety and Security Management Plan**, the Authority will comply with FRA requirements for tracks, equipment, railroad operating rules, and practices, including the passenger equipment safety standards set forth in the *Highway-Rail Grade Crossing Guideline for High-Speed Passenger Rail* (FRA 2009) that would improve passenger rail safety and reduce the potential for collisions and derailments. The Authority is mandated to build and operate the HSR system. This is a state-level project that would have benefits across multiple resource areas. The project design includes measures to reduce impacts on safety.

Refer to Appendix 3.1-A for a complete consistency analysis of local plans and policies.

3.11.4 Methods for Evaluating Impacts

The evaluation of impacts on safety and security is a requirement of NEPA and CEQA. The following sections define the RSAs and summarize the methods used to analyze impacts on safety and security. As summarized in Section 3.11.1, Introduction, seven other resource sections and one chapter provide additional information related to safety and security.

3.11.4.1 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 conducted environmental investigations specific to each resource topic. The RSAs for impacts on safety and security include the project footprint plus an additional distance from the project footprint, including new or modified electrical infrastructure required to build and operate the project, where impacts from construction and operations could occur on emergency services and community safety and security. General definitions and boundary descriptions for the RSAs are provided in Table 3.11-2 for the Shared Passenger Track Alternatives as presented on Figure 3.11-1, sheets 1 through 4.

Table 3.11-2 Definition of Safety and Security Resource Study Areas

General Definition	Resource Study Area Boundary
Safety and Security	
Direct RSA	▪ **Rights-of-way:** Areas within the HSR right-of-way and 0.5 mile immediately adjacent to the construction footprint[1] including stations and maintenance facility locations ▪ **Schools and Educational Facilities:** Areas within 0.25 mile of the construction footprint and station and maintenance facility locations ▪ **Landfills:** Areas within 0.25 mile of the construction footprint and station locations ▪ **Airports and high-risk facilities[2]:** Areas within 2 miles of the construction footprint and station and maintenance facility locations ▪ **High-Risk Utilities:** Areas within the construction footprint where utility relocations would occur ▪ **Oil and gas wells[3]:** Areas within 200 feet of the centerline and station and maintenance facility locations ▪ **Emergency service providers:** Emergency service provider service areas
Indirect RSA	▪ **Service providers (e.g., fire departments, police departments, hospitals):** Service areas within 2 miles of the project footprint

Source: Authority 2022

[1] The project footprint includes areas required to build, operate, and maintain permanent HSR facilities, including permanent right-of-way, permanent utility and access easements, and temporary construction easements.

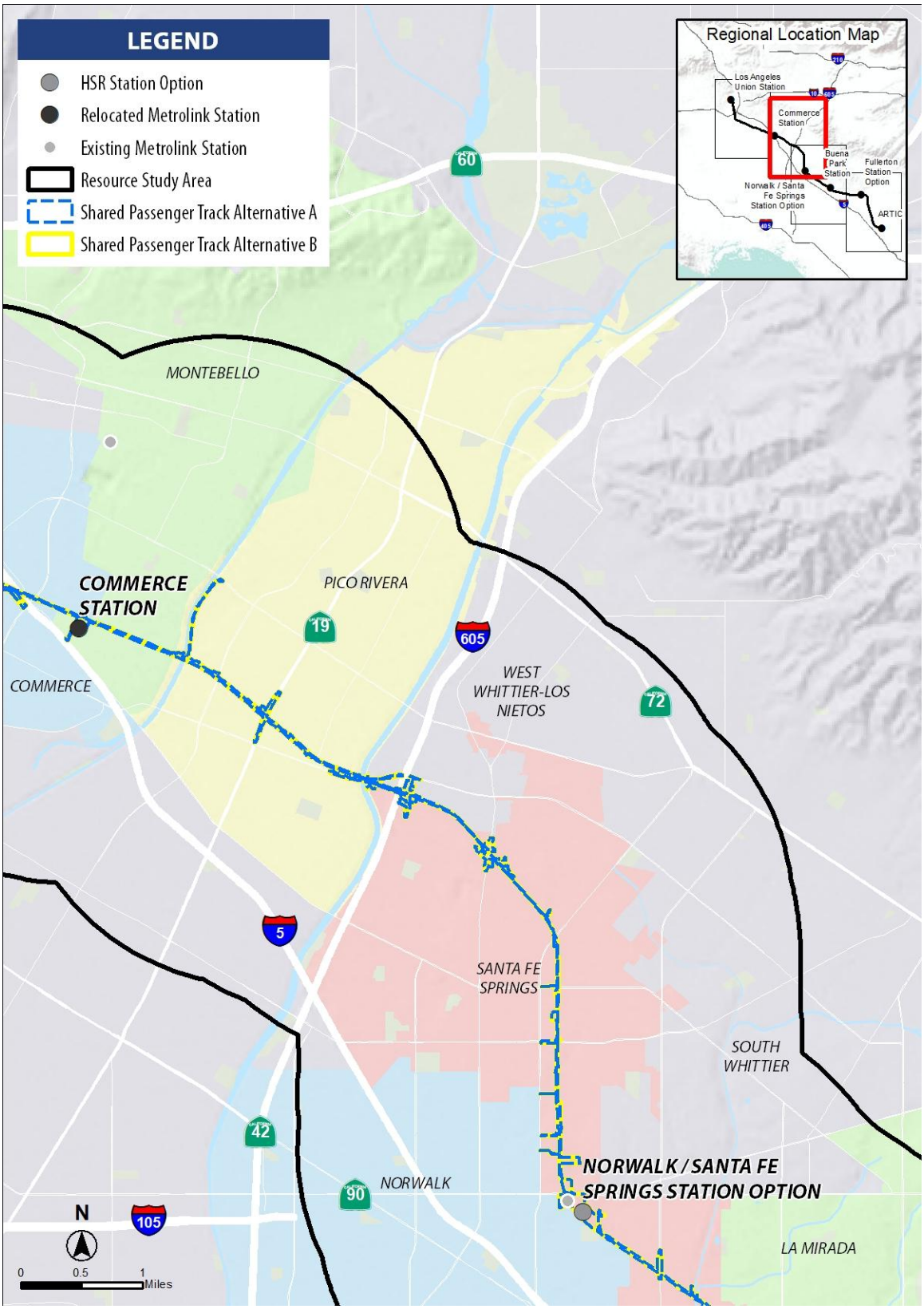
[2] California Code of Regulations, Title 5, Section 14010(d), requires a safety study for new school sites within 1,500 feet (approximately 0.25 mile) of an existing railroad track.

[3] Oil and gas wells would be identified within 200 feet of the tracks per California Code of Regulations title 14, chapter 4, article 2, section 1720.

HSR = high-speed rail; RSA = resource study area

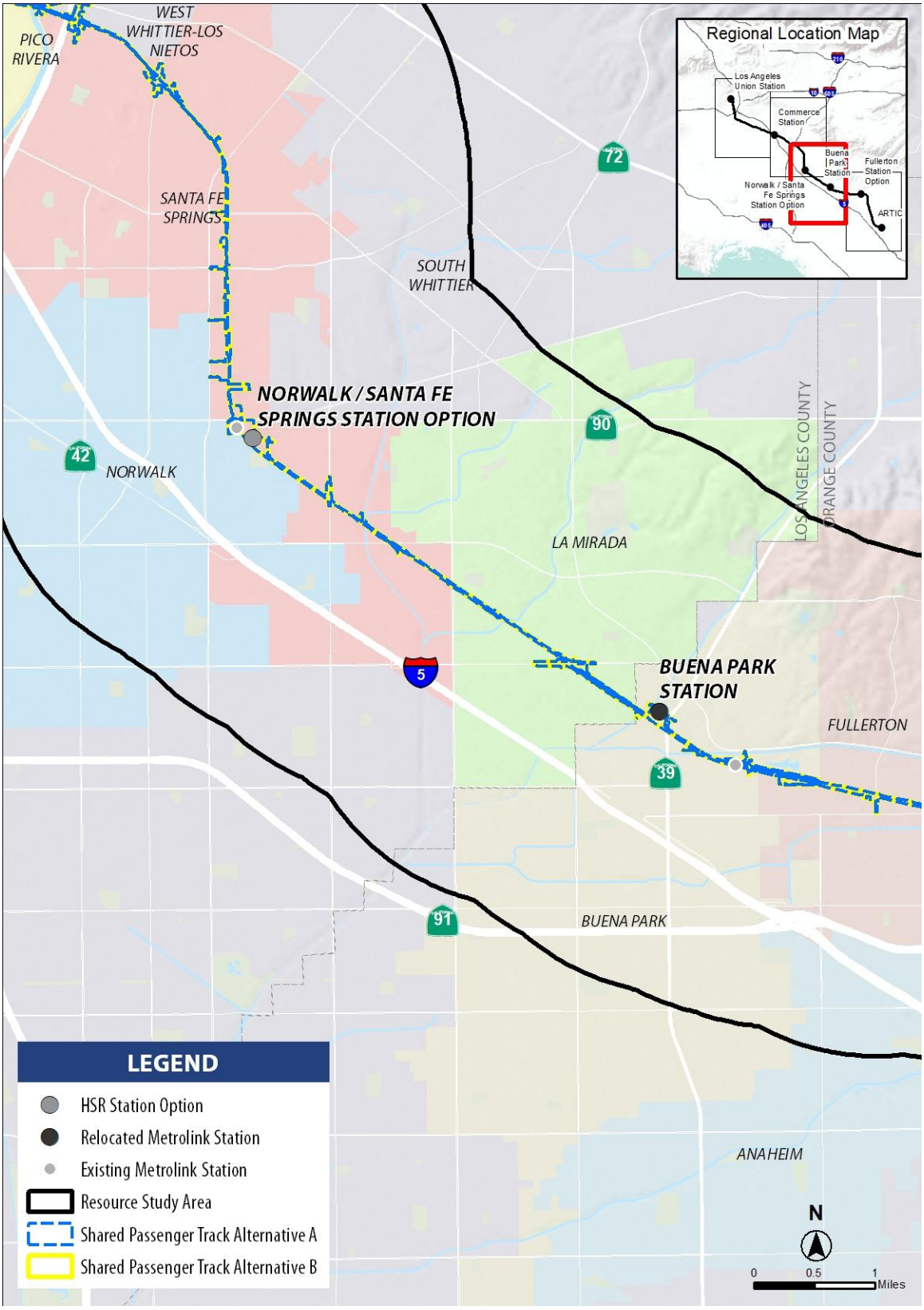
Source: U.S. Census Bureau 2024

Figure 3.11-1 Safety and Security Resource Study Area, Sheet 1 of 4



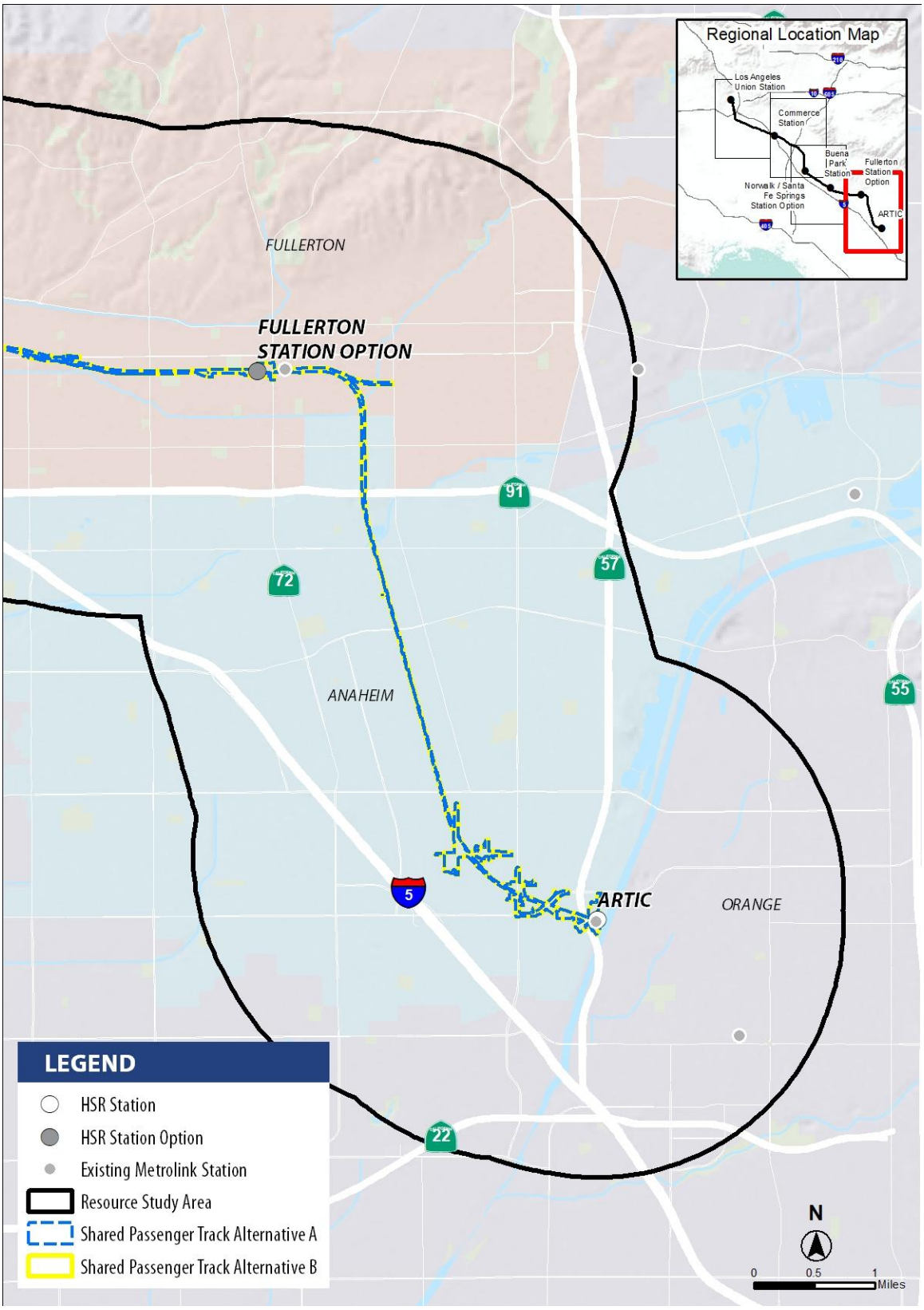
Source: U.S. Census Bureau 2024

Figure 3.11-1 Safety and Security Resource Study Area, Sheet 2 of 4



Source: U.S. Census Bureau 2024

Figure 3.11-1 Safety and Security Resource Study Area, Sheet 3 of 4



Source: U.S. Census Bureau 2024

Figure 3.11-1 Safety and Security Resource Study Area, Sheet 4 of 4

3.11.4.2 Impact Avoidance and Minimization Features

The Shared Passenger Track Alternatives incorporate standardized HSR features to avoid and minimize impacts. These features are referred to as IAMFs and are considered to be part of the project. 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 all applicable IAMFs. Appendix 2-A provides a detailed description of IAMFs that are included as part of the project design. IAMFs applicable to safety and security include:

- **SS-IAMF#1, Construction Safety Transportation Management Plan** (CSTMP), requires preparation of a plan that will include maintaining emergency vehicle access and procedures for implementing temporary road closures.
- **SS-IAMF#2, Safety and Security Management Plan**, requires preparation of documentation that specifies how the requirements, plan, programs, and guidelines were considered to protect safety and security of construction workers and users of the HSR.
- **SS-IAMF#3, Hazard Analyses**, requires identification of hazards, assessment of associated risk, and application of control measures (mitigation) to reduce the risk to an acceptable level. Prior to project construction, the Authority or its contractor will prepare a hazard assessment that includes a preliminary hazard analysis and threat and vulnerability assessment. During design and construction, the Authority-designated contractor will conduct site-specific preliminary hazard analysis and threat and vulnerability assessments to apply the programmatic work to their specific project designs.
- **SS-IAMF#4, Oil and Gas Wells**, requires identification and inspection of active and abandoned oil and gas wells within 200 feet of HSR tracks, and relocation of active wells.
- **SS-IAMF#5, Aviation Safety**, describes the Authority's commitment to ensure civil aviation safety and to prevent the potential for disruption of airfield and airspace operations at Fullerton Airport as a result of project construction or operation.

Other resource IAMFs applicable to impacts on safety and security include:

- **AQ-IAMF#1:** Fugitive Dust Emissions
- **GEO-IAMF#3:** Gas Monitoring
- **GEO-IAMF#8:** Suspension of Operations During an Earthquake
- **GEO-IAMF#10:** Geology and Soils
- **HMW-IAMF#1:** Property Acquisition Phase I and Phase II Environmental Site Assessments, Additional Preconstruction Investigations, and Associated Actions to Control Site Contamination
- **HMW-IAMF#2:** Landfill
- **HMW-IAMF#3:** Work and Vapor Barriers
- **HMW-IAMF#4:** Known, Suspected, and Unanticipated Environmental Contamination
- **HMW-IAMF#6:** Spill Prevention and Response Plan
- **HMW-IAMF#7:** Storage and Transport of Materials
- **HMW-IAMF#8:** Permit Conditions
- **HMW-IAMF#9:** Environmental Management System
- **HMW-IAMF#10:** Hazardous Materials Plans
- **HYD-IAMF#2:** Flood Protection
- **TR-IAMF#2:** Construction Transportation Plan

- **TR-IAMF#4:** Maintenance of Pedestrian Access
- **TR-IAMF#5:** Maintenance of Bicycle Access
- **TR-IAMF#6:** Restriction on Construction Hours
- **TR-IAMF#8:** Construction During Special Events
- **TR-IAMF#11:** Maintenance of Transit Access
- **TR-IAMF#12:** Pedestrian and Bicycle Safety
- **TR-IAMF#13:** Stakeholder Coordination with Transportation Agencies

In Section 3.11.6, Environmental Consequences, each impact narrative describes how these project features are applicable and effective at avoiding or minimizing potential impacts to less-than-significant levels under CEQA.

3.11.4.3 Methods for Impact Analysis

This section describes the sources and methods the Authority used to analyze potential impacts from implementing the Shared Passenger Track Alternatives on emergency services and community safety and security. These 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 Transportation Technical Report* (Authority 2025a), *Los Angeles to Anaheim Project Section Geology, Soils, and Seismicity Technical Report* (Authority 2025b), *Los Angeles to Anaheim Project Section Hydrology and Water Resources Technical Report* (Authority 2025c), and *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025d), available on request, for information regarding the methods and data sources used in this analysis. Laws, regulations, and orders (refer to Section 3.11.2, Laws, Regulations, and Orders) that regulate safety and security were also considered in the evaluation of impacts on safety and security. For project construction and operational actions that would result in impacts, feasible mitigation measures are identified to avoid or minimize impacts or to compensate for impacts. Because no HSR system currently operates in the U.S., the evaluation of safety and security impacts is based on international rail operating experience and existing conditions compared to the design and operational features of the Shared Passenger Track Alternatives. The Authority evaluated impacts of the Shared Passenger Track Alternatives on passengers, employees, and the general public of significant risk of loss, injury, or death during construction and operations. Table 3.11-3 summarizes the sources and description of safety and security impacts. Safety issues evaluated include:

- Train operations
- Infrastructure maintenance
- Vehicle, bicycle, and pedestrian access control measures at stations and along the right-of-way
- Emergency service response strategies to fire, seismic events, floods, extreme weather, or other emergency situations

Security issues evaluated include:

- The incidence of criminal activities affecting passengers and employees and HSR infrastructure
- Attractiveness and vulnerability of the HSR for terrorist activity

Table 3.11-3 Source and Description of Potential Safety and Security Impacts

Source of Impacts	Description of Impacts
Construction activities with potential for impacts on safety and security resources because of temporary or permanent physical change on the landscape by project facilities such as the guideway and supporting structures, HSR-related infrastructure and facilities, stations, and parking structures/lots	▪ Accidents at construction sites ▪ Accidents associated with construction-related detours or other traffic-control measures ▪ Crime at construction sites ▪ Increased response times for fire, rescue, and emergency services from temporary or permanent road closures
Operational impacts resulting from ongoing rail service and maintenance activities of the HSR system	▪ Train-to-train collisions ▪ Collisions with other trains entering the HSR corridor ▪ Train derailment ▪ Motor vehicle, pedestrian, and bicycle accidents associated with HSR operations, including at stations, parking structures and maintenance facilities ▪ HSR accidents associated with extreme weather conditions such as flooding and high winds ▪ HSR accidents associated with seismic events ▪ Onboard fire ▪ Tunnel fires ▪ Accident risks to airports, private airstrips, and heliports ▪ Hazards to the HSR from nearby facilities (e.g., nearby industrial facilities) ▪ Safety impacts on residences and schools ▪ Criminal or terrorist activity aboard trains, at stations, along the right-of-way and at facilities ▪ Increased/decreased response times for fire, rescue, and emergency services associated with the HSR alignment and road modifications/closures ▪ Emergency capabilities for response to mass casualty events or to HSR alignment types such as elevated and trench structures or tunnels ▪ Safety and security setback requirements from the HSR alignment and adjacent facilities and underneath elevated structures

HSR = high-speed rail

Emergency Services

The Authority reviewed general plans, emergency plans, and other relevant local municipality planning documents and corresponded with local fire protection, police, and other emergency medical service providers. The locations of fire departments and the types of equipment operated within the RSA were also evaluated and inventoried as part of the analysis. The evaluation of the potential impacts from the Shared Passenger Track Alternatives on emergency services includes the following:

- Review of Authority-developed requirements for safety and security plans and procedures applicable to construction and operation of the Shared Passenger Track Alternatives

including the SEPP, SSMP, SSP, and System Security Plan. Technical Memorandum 2.8.1, Safety and Security Design Requirements for Infrastructure Elements, was also reviewed for infrastructure elements for the HSR system that affect safety and security from construction and operation of the Shared Passenger Track Alternatives.

- Review of technical memoranda that describe the Authority's plans and procedures requirements to evaluate their applicability to and their impact on safety and security impacts of construction and operation of the Shared Passenger Track Alternatives.
- Review of safety and security plans and procedures that would reduce safety and security impacts of construction and operation of the Shared Passenger Track Alternatives and their incorporation into project design and analysis of project-wide IAMFs applicable to safety and security for the construction and operation of the Shared Passenger Track Alternatives.
- Review of general plans, emergency plans, and other relevant local municipality planning documents and local fire protection, police, and other emergency service provider plans to ensure consistency with safety goals and policies from construction and operation of the Shared Passenger Track Alternatives. The locations of fire departments and the types of equipment operated within the RSA were also evaluated and inventoried as part of the analysis. Emergency response times for fire departments within the RSA were compiled to provide a baseline for evaluating impacts resulting from construction and operation of the Shared Passenger Track Alternatives.
- Development and review of a geographic information system database using electronic information from local and regional government sources related to local land uses and potential hazards as a result of fire, seismic events.
- Identification of nearby oil and gas wells and potential safety and security impacts of fire hazards and emergency response times.
- Review of (1) locations of police department facilities and (2) law enforcement call response times in the RSA (using geographic information systems and online research) to evaluate adequate emergency response for impacts resulting from construction and operation of the Shared Passenger Track Alternatives.
- Compilation and review of the locations of fire departments, the types of equipment operated in the RSAs, and publicly available emergency response times for fire departments in the RSAs to identify impacts on emergency vehicle response resulting from construction and operation of the Shared Passenger Track Alternatives.
- Identification of temporary and permanent road closures and relocations within the project section and construction of grade-separated crossings to assess temporary and permanent safety and security impacts on emergency response times and emergency vehicle access from construction and operation of the Shared Passenger Track Alternatives.
- Identification of the linear extent of operation of the Shared Passenger Track Alternatives on elevated track and in trench configuration to assess permanent impacts on emergency response and access from operation of the Shared Passenger Track Alternatives.
- Review of the design and operation of the Shared Passenger Track Alternative at-grade crossings to assess permanent impacts on railroad accidents or incidents and emergency response from operation of the Shared Passenger Track Alternatives.

Emergency Vehicle Response Time Evaluation Methodology

To evaluate potential impacts on emergency vehicle response times from operation of the Shared Passenger Track Alternatives, the Authority used a network-based geospatial modeling approach to estimate potential increases in delay with the introduction of HSR trains in the corridor. The analysis focused on the eight at-grade rail crossings between the Fullerton Metrolink/National Railroad Passenger Corporation (Amtrak) Station and the Anaheim Regional Transportation Intermodal Center (ARTIC), because this is the only segment of the Shared Passenger Track

Alternatives where existing at-grade crossings would remain. At-grade rail crossings can result in gate-down times that impede vehicle movement and delay emergency response. The analysis simulated emergency response routes and calculated travel times from nearby fire stations to modeled incident locations within a 1-mile study area, incorporating both arterial and local roadway connectivity. The remainder of the Shared Passenger Track Alternatives, between Los Angeles Union Station (LAUS) and Fullerton, was not included in the emergency vehicle response time modeling, because it is fully grade separated, eliminating the potential for train operations to delay emergency vehicles. To provide a conservative analysis, the simulation did not account for existing or potential emergency response management technologies or protocols that could allow emergency vehicles to respond to emergency events more efficiently (STV 2025a).

Community Safety

The Authority reviewed the planned roadway improvements and planned temporary or permanent road closures and relocations during construction and operation of the Shared Passenger Track Alternatives. For the purposes of this analysis, a *train accident*, as defined in 49 CFR Part 225.5,[7] involves damages to equipment ("any collision, derailment, fire, explosion, act of God, or other event involving operation of railroad on-track equipment, whether standing or moving, that results in damages greater than the current reporting threshold to railroad on-track equipment, signals, track, track structures, and roadbed"). A *train incident* involves injuries ("any event involving the movement of on-track equipment that results in a reportable casualty, but does not cause reportable damage above the current threshold established for train accidents"). In general, train incidents involve injuries or fatalities (casualties) and train accidents involve property damage.[8] Impacts on community safety were evaluated for the following:

- **Vehicular Safety and Pedestrian and Bicycle Safety:** The potential for roadway improvements or closures and HSR operations effects on motor vehicle drivers, pedestrians, and bicyclists. Data from the FRA (FRA 2024) were gathered to evaluate automobile, pedestrian, and bicycle safety, including incidents occurring at roadway-railroad grade crossings and to characterize accidents and incidents in the RSAs. Vehicle accident data and train accident/incident data from CHP and the FRA were also collected.
- **Rail Safety:** Impacts on safety were evaluated utilizing quantitative and qualitative data collected from a variety of existing sources (i.e., the FRA, CHP) within the RSA, including accident data, general and safety plans, and databases to establish baseline conditions as a basis for comparison of the impacts of the HSR system on safety conditions within the RSA. Please refer to Section 3.2 for detailed transportation design and traffic impacts affecting safety.

The evaluation of safety for rail operations was based primarily on (1) existing conditions compared to the design and operational features of the project section and (2) international rail operating experience. Safety analysis also included train travel and maintenance activities, onboard fire risk, seismic events, or other emergency situations including fall hazards, criminal

[7] As defined in 49 CFR Part 225.5, "Accident/incident means: (1) Any impact between railroad on-track equipment and a highway user at a highway/rail grade crossing. The term 'highway user' includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized; (2) Any collision, derailment, fire, explosion, act of God, or other event involving the operation of railroad on-track equipment, whether standing or moving, that results in reportable damages greater than the current reporting threshold to railroad on-track equipment, signals, track, track structures, and roadbed; (3) Each death, injury, or occupational illness that is a new case and meets the general reporting criteria listed in §225.19(d)(1) through (d)(6) concerning an event or exposure arising from the operation of a railroad is a discernable cause of the resulting condition or a discernable cause of a significant aggravation to a preexisting injury or illness. The event or exposure arising from the operation of a railroad need only be one of the discernable causes; it need not be the sole or predominant cause."

[8] As defined by the FRA, a *casualty* is defined as death and non-fatal injuries to all types of persons, and occupational illnesses involving railroad employees (FRA n.d.).

acts, or acts of terrorism that would result in automated train shutdowns or emergency evacuations.

- **Airports:** Safety aspects of the project section were evaluated with respect to FAA regulatory requirements and the *Airport Environs Land Use Plan for Fullerton Municipal Airport*.
- **High-Risk Facilities and Fall Hazards:** High-risk facilities, such as oil and natural gas pipelines and utilities, and fall hazards, including bridges and industrial facilities with tall structures in the RSA, were identified using geographic information system data and data provided by the Authority. High-risk facilities and fall hazards are identified in Section 3.6.
- **Schools:** School district public databases and geographic information system data were used to identify educational facilities within 0.25 mile of the project section.
- **Landfills:** The California Solid Waste Information System database was reviewed to identify active landfills and closed landfills within 0.25 mile of the project section (CalRecycle 2024). Section 3.10 provides a discussion of landfills within the RSA that have the potential to release methane gas, which may present an explosion risk resulting from accidents, severe weather, or terrorist acts, consistent with California Code of Regulations, Title 27, Division 2, Chapter 3, Subchapter 4, Gas Monitoring and Control at Active and Closed Disposal Sites. Building codes and safety regulations within the RSA ensure the safe construction and operation of HSR facilities near landfills.

Security

An evaluation of the potential impacts the Shared Passenger Track Alternatives could have on security includes the following:

- The Authority reviewed police department and law enforcement records for types and statistics of crime and acts of terrorism onboard trains, and at or near passenger rail facilities and property to evaluate vulnerability and attractiveness of potential criminal activity that impacts the safety of individuals and property including the train and infrastructure.
- For security, similar methods were applied as described for impacts on emergency services and safety. The locations of police departments and law enforcement call response times in the RSAs were reviewed. Crime rates in Los Angeles and Orange Counties were also compared with crime rates throughout the state. Statistics for onboard crime on passenger trains were obtained from Los Angeles County Metropolitan Transportation Authority (Metro) and San Francisco Bay Area Rapid Transit to identify the types of potential operational security impacts resulting from the Shared Passenger Track Alternatives. The locations of fire departments and the types of equipment operated in the RSAs were also evaluated and inventoried as part of the analysis. Emergency response times for fire departments in the RSAs were then compiled and reviewed to identify impacts resulting from construction and operation of the project section. Responsibilities of railroad police officers under 49 CFR Part 207 were also included in the evaluation of impacts.[9]

Natural Disasters

The Authority reviewed maps, tables, and other relevant data related to dam failure/ inundation/flood risks, geotechnical hazards, and high winds. The locations of hazards within the RSA were also evaluated and inventoried as part of the analysis. Existing regulations and requirements, as well as standard design practices and design criteria, were then compiled and reviewed to provide a baseline for evaluating impacts resulting from project implementation. For

[9] As defined in 49 CFR Part 207.2, *railroad police officer* means a peace officer who is commissioned in his or her state of legal residence or state of primary employment and directly employed by or contracted by a railroad to enforce state laws for the protection of railroad property, personnel, passengers, or cargo.

analysis of wildfire hazards, the Authority reviewed fire hazard severity zone maps for state and local responsibility areas throughout the RSA to determine where wildfire hazards exist within the RSA. Using an overlay of each build alternative footprint, the Authority evaluated the potential for project construction and operation to increase fire risks in these areas. In particular, the Authority evaluated the storage and use of flammable or combustible materials, operation of heavy machinery, presence of electrical facilities, and other factors resulting from increased human activity.

An evaluation of the potential impacts the Shared Passenger Track Alternatives could have on natural disasters also includes the following:

- The California Department of Forestry and Fire Protection prepared the *Strategic Plan 2019*. The plan provides the state's road map for reducing the risk of wildfire (CAL FIRE 2019). Part of this plan identifies and assesses community assets at risk of wildfire damage. The California Department of Forestry and Fire Protection generated a list of California communities at risk for wildfire and created fire hazard severity zones (CAL FIRE 2011a, 2011b). The fire severity zone maps also identify State Responsibility Zones and Local Responsibility Zones. The California Department of Forestry and Fire Protection is not responsible for primary fire response in Local Responsibility Zones; local fire departments would be the primary fire responders.
- For wildland fires, fire zone maps were reviewed to assess land use and designated fire zones and responsibility areas. Areas of wildland fire risk are defined as mapped fire hazard severity zones within 2 miles of the project section that are classified as high or very high fire severity zones. Wildland fire hazards are discussed in Section 3.11.5.3, Wildland Fires.

3.11.4.4 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 this analysis, the *context* would include conditions related to safety and security within the RSAs, including existing fire and emergency services, law enforcement, emergency medical services, emergency response plans, and community safety features; the regulatory setting relevant to safety and security, including regional and local safety and security plans and procedures, and the Authority's SSMP; and the history of safe and secure operations of international HSR systems.
- **Intensity:** For this analysis, *intensity* is determined by assessing the degree to which the project section could affect the public health and safety of HSR passengers, employees, and the surrounding communities through a reduction in emergency response access, an increase in emergency response times, construction worker risks (e.g., exposure to safety hazards or hazardous materials at construction sites), accident risks, or an increase of vulnerability to criminal or terrorist activity.

3.11.4.5 Method for Determining Significance Under CEQA

CEQA requires that an EIR identify the significant environmental impacts of a project (State CEQA Guidelines Section 15126). One of the primary differences between NEPA and CEQA is that CEQA requires a threshold-based impact analysis. Under CEQA, significant impacts are determined by evaluating whether project impacts would exceed the significance threshold established for the resource (Section 3.1.5.4). The Authority is using the following thresholds to determine if a significant impact on safety and security would occur as a result of the Shared Passenger Track Alternatives. A significant safety or security impact under CEQA could occur if a project would:

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the safety of such facilities

- Substantially increase hazards from a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses
- Result in a safety hazard for people residing or working in the project vicinity (for a project within an area where there is an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport or in the vicinity of a private airstrip)[10]
- Result in a safety hazard for people in the RSA as a result of construction or operational activities
- Result in substantial adverse physical impacts associated with the provision of and the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for public services, including fire protection, police protection, and emergency services
- Result in inadequate emergency access
  - An impact would be considered potentially significant if the project would impair the delivery of emergency services (e.g., fire, police, medical), or impair emergency access routes in a manner that compromises public safety, including impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands
- If in or near State Responsibility Areas or lands classified as very high fire hazard severity zones:
  - Substantially impair an adopted emergency response plan or emergency evacuation plan
  - Because of slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire
  - Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment

Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Although not in a very high fire hazard severity area, the project is within or near State Responsibility Areas. Accordingly, impacts from the last four items are addressed in this analysis.

State and local agencies have developed a variety of policies, plans, and programs to address safety and security, including emergency response plans, evacuation plans, and plans to address bicycle safety, among others. Because these policies, plans, and programs have been developed specifically to minimize safety and security risks, a conflict would generally indicate the potential for a significant impact related to safety and security under CEQA. Refer to Section 3.2 for

[10] An airstrip is an aircraft runway that does not have airbase or airport facilities. These may be privately owned runways located on farms or other private land.

discussion of the project section's potential conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

3.11.5 Affected Environment

This section describes the affected environment for safety and security within the RSAs. This information provides the context for the environmental analysis and evaluation of impacts.

Key issues identified through public outreach efforts related to safety and security included safety and security features (such as fencing) for rail grade separations and at-grade crossings, grade separation of crossings with arterial highways, coordination of HSR operations with other railroad owners/operators, and safety and reliability improvements in the Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN Corridor). A summary of interested party issues and concerns, including those related to safety and security, from public outreach efforts can be found in Chapter 9, Public and Agency Involvement.

3.11.5.1 Emergency Services

The emergency services discussed in this section include fire protection, law enforcement, and emergency medical services.

Fire Protection

The fire departments, types of equipment operated, staffing, and average response times in the safety and security RSAs are summarized in Table 3.11-4, and the locations of the fire stations are included on Figure 3.11-5, sheets 1 through 6, and in Appendix 3.11-A, Table 3.11-A-2. The fire departments serving the safety and security RSAs in the city of Los Angeles consist of paid and volunteer employees. Additionally, similar to police protection services, each of the city and county fire departments bordering the RSAs in Los Angeles County has a mutual aid agreement with Cal OES to provide concurrent, cooperative response and assistance during emergencies (Cal OES 2023). This allows the closest fire department to respond to an emergency, even if the emergency incident is outside its jurisdiction. The Los Angeles County Fire Department provides fire protection services to Bell, Commerce, West Whittier, La Habra, Pico Rivera, Norwalk, and La Mirada.

The Fullerton Fire Department provides fire protection services to the safety and security RSAs in Fullerton. Anaheim Fire and Rescue provides fire protection services to the safety and security RSAs in Anaheim. This fire department is also made up of paid and volunteer employees. As previously discussed, the mutual aid agreement with Cal OES (Cal OES 2016) allows for the closest fire department to respond to an emergency, even if the emergency incident is outside of its jurisdiction. Additionally, Fullerton and Anaheim are a part of Metro Cities Fire Authority, also known as Metro Net Fire Dispatch, which is an emergency communications center in Anaheim. Under a joint powers authority agreement, Metro Net Fire Dispatch serves seven cities in Orange County,[11] supporting the member cities' fire departments by providing fire and medical dispatch services through a shared communications system (Metro Cities Fire Authority n.d.). The center uses an efficient computerized system that automatically routes the nearest fire truck or medic to a particular call within the member cities (Behind the Badge 2017).

As presented in Table 3.11-4, response times are not always consistent with applicable goals and objectives outlined in the regional and local planning documents.

[11] Metro Net Fire Dispatch serves Anaheim, Brea, Fountain Valley, Fullerton, Huntington Beach, Newport Beach, and Orange.

Table 3.11-4 Fire Departments and Equipment in the Project Section

Fire Department	Service Area	Equipment/Staffing	Average Response Times	Response Time Goals
Los Angeles Fire Department	City of Los Angeles	▪ 98 Type 1 engines ▪ 43 truck/light forces ▪ 93 advanced life support ambulances ▪ 43 basic life support ambulances ▪ 4 hazardous materials squads ▪ 43 assessment truck/light forces ▪ 16 brush patrols ▪ 6 urban search and rescue companies ▪ 1 heavy rescue ▪ 3,510 sworn fire personnel ▪ 392 civilian fire personnel	6 minutes	Not applicable
Los Angeles County Fire Department	Unincorporated Los Angeles County and contracted cities, including Bell, Commerce, Pico Rivera, La Mirada, La Habra, West Whittier, and Norwalk	▪ 477 firefighters ▪ Volunteer civilian firefighters ▪ 265 fire engines ▪ 25 quints[1] (engine and ladder truck) ▪ 2 tiller trucks[2] ▪ 12 reserve trucks/quints ▪ 5 light forces (combination of an engine and a quint) ▪ 70 Paramedic Rescue Squads ▪ 12 water tanker trucks/tenders ▪ 8 fuel tenders ▪ 4 hazardous materials squads ▪ 2 urban search and rescue units ▪ 8 helicopters ▪ 4 emergency support teams ▪ 5 swift water rescue units ▪ 5 fire boats ▪ 4 foam units ▪ 4 mobile air/light units	5 minutes	Not applicable

Fire Department	Service Area	Equipment/Staffing	Average Response Times	Response Time Goals
City of Vernon Fire Department	City of Vernon	Disbanded on October 21, 2020, because services were contracted to the Los Angeles County Fire Department; refer to Los Angeles County Fire Department above.	Not applicable	Not applicable
Montebello Fire Department	City of Montebello	▪ 3 fire engines ▪ 1 ladder trucks ▪ 1 air/light unit ▪ 1 urban search and rescue unit ▪ 1 Battalion Chief ▪ 56 firefighters ▪ Volunteer civilian firefighters	1 minute; part of the larger Verdugo Fire Communications Center United Response System, which includes 13 local cities that collaborate on emergency responses	Maintain an average fire department response time of fewer than 3 minutes to emergency calls for service
Santa Fe Springs Fire Department	City of Santa Fe Springs	▪ 15 fire engines ▪ Three engine companies ▪ Fire truck company ▪ 1 hazardous materials response program ▪ 1 urban search and rescue program ▪ 4 paramedic vans ▪ 1 light air unit ▪ 45 firefighters ▪ Volunteer civilian firefighters	5 minutes or less	General, no specific response criteria or metrics identified (e.g., respond as quickly and safely as possible)
Downey Fire Department	City of Downey	▪ 4 fire stations ▪ 21 emergency personnel ▪ 4 fire engines ▪ 2 paramedic units ▪ 1 ladder truck ▪ 1 technical rescue unit	5 minutes or less	Arrival time within 5 minutes on 90% of responses

Fire Department	Service Area	Equipment/Staffing	Average Response Times	Response Time Goals
Orange County Fire Authority	Unincorporated Orange County and 23 cities[12]	▪ 77 fire stations ▪ Reserve firefighters for 10 stations ▪ 600 fire engine/ladder truck apparatus and light-duty vehicles ▪ 100 mechanical equipment assets	5–7 minutes	Urban/ Suburban: 6:58 while maintaining a system reliability of 80 percent or greater Rural: 11:30 while maintain a system reliability of 80 percent or greater
Orange Fire Department	City of Orange	▪ 8 fire engines ▪ 2 frontline ambulances, 2 reserve ambulances ▪ 18 ambulance operators	3–5 minutes	Maintain current response times
Fullerton Fire Department	City of Fullerton	▪ 9 fire engines ▪ 2 fire trucks ▪ 1 urban search and rescue unit ▪ 1 hazardous materials unit ▪ 1 swift water rescue ▪ 72 firefighters ▪ Volunteer civilian firefighters	6 minutes or less	Not applicable

[12] The Orange County Fire Authority provides fire services for the following cities: Aliso Viejo, Buena Park, Cypress, Dana Point, Garden Grove, Irvine, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, La Palma, Los Alamitos, Mission Viejo, Rancho Santa Margarita, San Clemente, San Juan Capistrano, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, Yorba Linda, and unincorporated areas of Orange County.

Fire Department	Service Area	Equipment/Staffing	Average Response Times	Response Time Goals
Anaheim Fire and Rescue	City of Anaheim	▪ 4 fire trucks ▪ 2 quints (engine and ladder truck) ▪ 1 reserve quint ▪ 10 fire engines ▪ 6 reserve fire engines ▪ 1 urban search and rescue rig ▪ 1 hazardous materials squad ▪ 7 ambulances ▪ 3 patrol pickups ▪ 2 medic pickups ▪ 6 trailers ▪ 1 light air ▪ 209 sworn firefighters ▪ 67 volunteer civilian fire fighters	7 to 8 minutes	5-minute engine response time to 90% of incidents, and 8 minutes for the remaining 10%

Sources: California Fire and EMS 2016; Los Angeles County Fire Department 2015, 2020, 2023; City of Fullerton 2020c, 2024; City of Downey 2024; City of Orange 2024a; City of Montebello 2024b; City of Santa Fe Springs 2021; Guth pers. comm.; Knabe pers. comm.; OCFA n.d.(a), n.d.(b), 2014, 2015; Verdugo Communications 2015; Alpart pers. comm.; Anaheim Fire and Rescue 2015, 2016

[1] A quint is a fire apparatus that carries fire hose and ground ladders and has a fire pump, a water tank, and an aerial device.

[2] A tiller truck is a specialized truck with a turntable ladder mounted on the truck. It requires two drivers with separate steering wheels for the front and rear wheels.

Law Enforcement and Crime Rates

The Los Angeles Police Department serves the safety and security RSAs within the city of Los Angeles. Staffing levels and response time details for the Los Angeles Police Department are presented in Table 3.11-5 and station locations are provided in Appendix 3.11-A, Table 3.11-A-2. The Los Angeles Police Department and each of the city and county police departments that border the RSAs in the city of Los Angeles (including the Los Angeles County Sheriff's Department and the Vernon Police Department) have a mutual aid agreement with Cal OES to provide concurrent, cooperative response and assistance during emergencies (Cal OES 2023). This allows the closest police department personnel to respond to an emergency, even if the emergency incident is outside of their jurisdiction.

Figure 3.11-2 presents the service areas of the Los Angeles County Police Department and Orange County Police Department and the service areas of municipal police departments in Los Angeles County and Orange County. The Los Angeles County Sheriff's Department service area covers 90 unincorporated communities in Los Angeles County and 40 incorporated communities in Los Angeles County. Figure 3.11-3 indicates the service areas of the Los Angeles County Sheriff's Department. Additionally, the Los Angeles County Sheriff's Department provides police protection services to the cities of Commerce, Pico Rivera, Norwalk, and La Mirada. Staffing levels and response time details are provided in Table 3.11-5 and station locations are provided in Table 3.11-A-2 in Appendix 3.11-A. The CHP service area includes highways in Los Angeles County and Orange County, including roadways in the RSAs.

The Los Angeles Police Department and the Los Angeles County Sheriff's Department established an agreement in February 2017 concerning jurisdiction over rail and other transit systems in Los Angeles County. Los Angeles Sheriff's Department Metro Transit Service Areas are presented on Figure 3.11-4. The Los Angeles Police Department is responsible for patrolling

bus and rail lines in the city of Los Angeles. The Los Angeles County Sheriff's Department is responsible for patrolling rail lines in the San Gabriel Valley, East Los Angeles, and southeast Los Angeles County (San Gabriel Valley Tribune 2017).

The Orange County Sheriff's Department and the Anaheim Police Department provide police protection services in the safety and security RSAs in Orange County and Anaheim. The Orange County Sheriff's Department service area covers unincorporated communities in Orange County, including unincorporated communities bordering Anaheim, and some incorporated communities in Orange County. Figure 3.11-3 illustrates the Orange County Sheriff's Department patrol areas. Staffing levels and response time details for the Anaheim Police Department are presented in Table 3.11-5 and station locations are provided in Appendix 3.11-A, Table 3.11-A-2. As previously discussed, the mutual aid agreement with Cal OES (Cal OES 2016) allows for the closest police department personnel to respond to an emergency, even if the emergency incident is outside of their jurisdiction. As described above for fire protection, Fullerton and Anaheim are a part of the regional Metro Net Fire Dispatch center; the cities' police departments transfer their emergency response calls, such as for fire and medical incidents, to the dispatch center to be handled through the fire departments (Behind the Badge 2019).

Response times are not always consistent with applicable goals and objectives outlined in the regional and local planning documents.

Table 3.11-5 Police Services in the Project Section

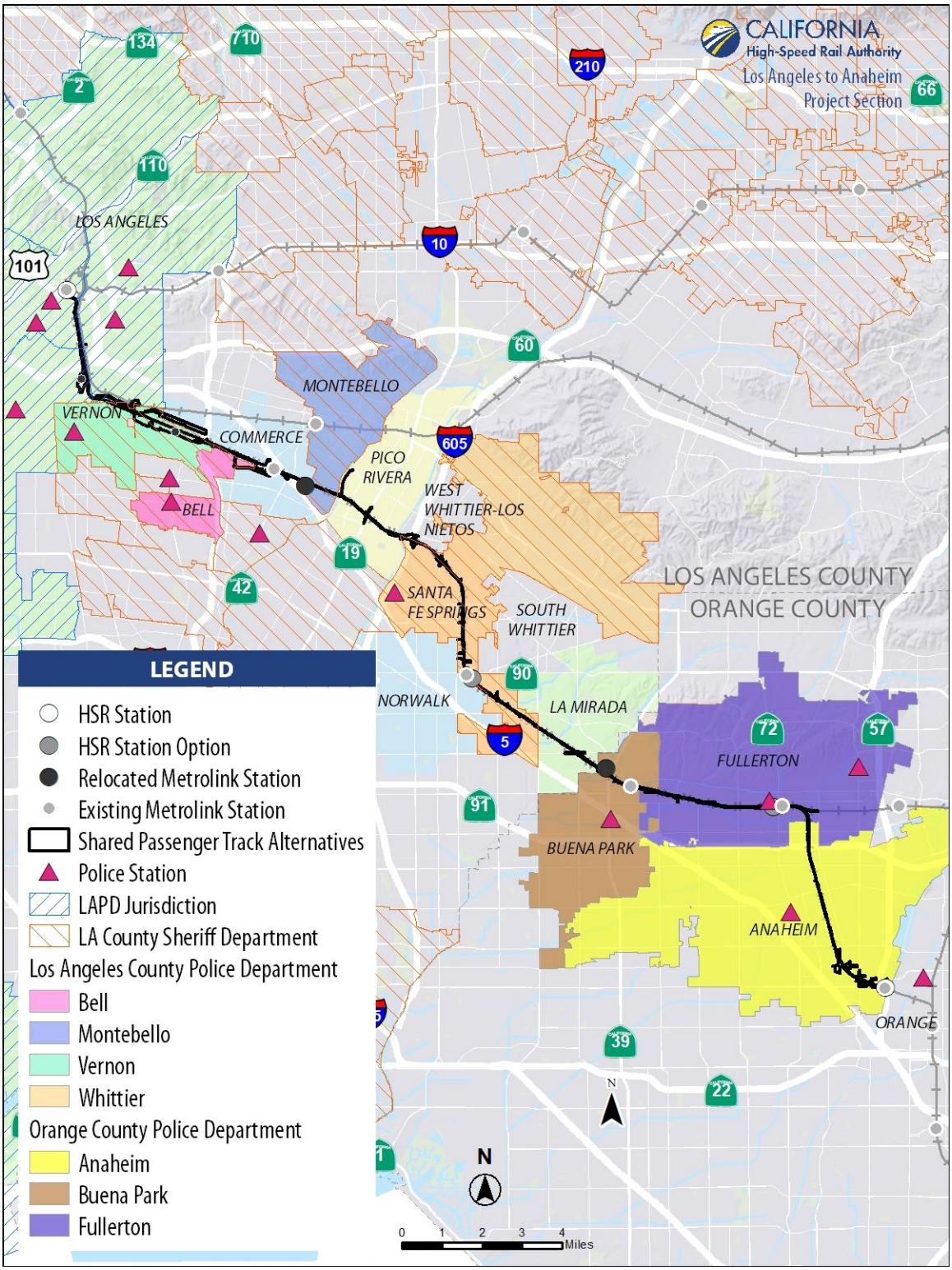
Police Department	Service Area	Staffing Levels/Service	Average Response Time	Response Time Goals
Los Angeles Police Department	City of Los Angeles Metropolitan Jail Section Community Police Stations: Central, Hollenbeck, Newton and Rampart	9,943 sworn officers plus 2,772 civilian staff/serves incorporated city of Los Angeles	5.7 minutes	7 minutes
Los Angeles County Sheriff's Department	Refer to Figure 3.11-3 and Figure 3.11-4 Pico Rivera Station, Norwalk Station, and La Mirada Substation	Los Angeles County Sheriff's Department has 18,000 employees and provides general law enforcement services to 40 contract cities, 90 unincorporated communities, 216 facilities, hospitals, and clinics in Los Angeles County, nine community colleges, the Los Angeles County Metropolitan Transportation Authority, and 47 Superior Courts. The cities of Commerce, Pico Rivera, Norwalk, and La Mirada are serviced by the Los Angeles County Sheriff's Department.	2.54 minutes	Not applicable
Vernon Police Department	City of Vernon	40 officers	Less than 4 minutes	Not applicable
Bell Police Department	City of Bell	17 contract patrol officers/services incorporated city of Bell	1–3 minutes	Not applicable

Police Department	Service Area	Staffing Levels/Service	Average Response Time	Response Time Goals
Bell Gardens Police Department	City of Bell Gardens	79 staff members including 43 sworn officers, 26 professional staff, and 10 part-time staff	Not applicable	Not applicable
Whittier Police Department	Cities of Whittier and Santa Fe Springs	128 sworn officers and 54 civilian staff/serves cities of Whittier and Santa Fe Springs 35 sworn and 6 support personnel are assigned to Santa Fe Springs	4.32 to 5.15 minutes	Not applicable
California Highway Patrol: Santa Fe Springs	City of Santa Fe Springs	135 law enforcement professionals and civilian support staff	Not applicable	Not applicable
Buena Park Police Department	City of Buena Park	95 sworn police officers and 46 full-time and 25 part-time professional staff members	4.29 minutes (Priority 1)	Not applicable
Santa Fe Springs Police Services Center	City of Santa Fe Springs	34 sworn police officers[13]	4:32	Not applicable
Fullerton Police Department	City of Fullerton	153 sworn police officers and 78 volunteer civilian employees/ serves incorporated city of Fullerton	6 minutes	Not applicable
California State University Police Department: Fullerton Campus	California State University Fullerton Campus	18 sworn police officers	Not applicable	Not applicable

[13] The City of Santa Fe Springs contracts with the Whittier Police Department for the provision of police services. Officers operate from the Santa Fe Springs Police Services Center on Telegraph Road. According to an official Whittier Police Department report, its total funded sworn force is 128 officers, of which approximately 34 are assigned to Santa Fe Springs.

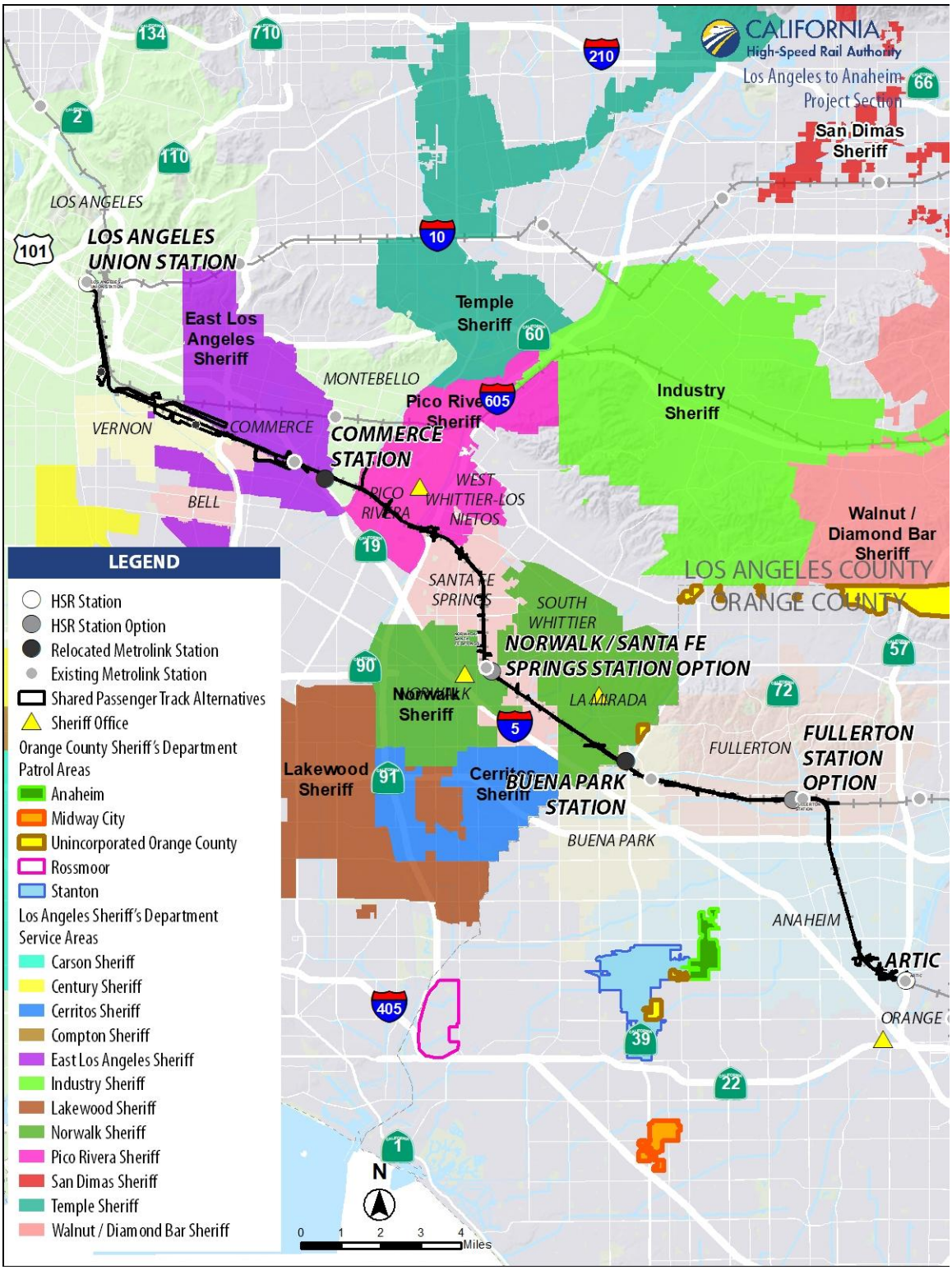
Police Department	Service Area	Staffing Levels/Service	Average Response Time	Response Time Goals
Orange County Sheriff's Department	Refer to Figure 3.11-3 Theo Lacy Facility	The Orange County Sheriff's Department is served by approximately 3,800 sworn and professional staff members and over 800 reserve personnel. The Orange County Transit Police Services is responsible for maintaining the safety and security of the Orange County Transportation Authority buses, transit centers (including ARTIC), and rail rights-of-way in Orange County. Transit Police Services provides specialized security and law enforcement services on OCTA buses in addition to supplementing local law enforcement agencies at transportation centers, OCTA facilities, and park-and-ride facilities (OCSD 2024).	5 minutes (Priority 1)	Not applicable
Orange Police Department	City of Orange	160 sworn officers, 120 support staff	4 minutes (patrol)	Maintain current response times
Anaheim Police Department	City of Anaheim	617 full-time staff and 63.35 part-time staff	7 min 29 sec (Priority 1)	Not applicable

Sources: California Highway Patrol 2024; California State University Fullerton 2024; City of Anaheim 2024a; City of Bell Gardens 2024; City of Buena Park 2022; City of Montebello 2024c; City of Orange 2024b; City of Santa Fe Springs 2022b; City of Whittier n.d., 2022; Daily Titan 2015; Gardena Police Department 2024; OCSD 2024; Orange Review 2024; Safer Watch 2023; Vernon Chamber of Commerce 2022
ARTIC = Anaheim Regional Transportation Intermodal Center; OCTA = Orange County Transportation Authority



Sources: LASD 2017; ESRI 2024b; HIFLD 2024b

Figure 3.11-2 Los Angeles and Orange County Police Department Service Areas



Sources: ESRI 2024b; LASD 2017; OCSD 2017; HIFLD 2024b

Figure 3.11-3 Los Angeles County and Orange County Sheriff's Department Patrol Areas

Source: Cal OES 2020; ESRI 2024b; HIFLD 2024b

Figure 3.11-4 Los Angeles Sheriff's Department Metro Transit Service Areas

Table 3.11-6 compares crime rates in the state with the cities within the RSAs in 2014 and Table 3.11-7 includes data for 2019. Crime rates are reported by municipality and metropolitan

statistical area in the Federal Bureau of Investigation database; the community of West Whittier–Los Nietos is in an unincorporated area of Los Angeles County and is not separately listed in the data.

Table 3.11-6 Comparison of Crime Rates in the Project Section, 2014

Jurisdiction	Violent Crime (per 100,000 inhabitants)	Violent Crime (per 100 inhabitants)	Property Crime (per 100,000 inhabitants)	Property Crime (per 100 inhabitants)
California	396.13	0.40	2,441.06	2.44
Los Angeles-Long Beach-Anaheim MSA[1]	368.90	0.37	2,050.37	2.05
City of Los Angeles	490.71	0.49	2128.07	2.13
Los Angeles-Long Beach-Glendale MD[2]	422.12	0.42	2148.82	2.15
Vernon	--	21.74	--	217.30
Bell	--	0.60	--	0.60
Commerce	--	0.59	--	7.42
Pico Rivera	--	0.43	--	2.13
Montebello	--	0.21	--	2.27
Santa Fe Springs	--	0.43	--	6.51
Norwalk	--	0.30	--	1.87
La Mirada	--	0.18	--	1.29
Anaheim-Santa Ana-Irvine MD[3]	198.23	0.20	1,734.67	1.73
Buena Park	--	0.26	--	2.43
Fullerton	--	0.24	--	2.29
Anaheim	317.33	0.32	2,362.26	2.36
Orange	142	0.14	2,241.0	2.24

Sources: FBI 2014a, 2014b, 2014c, 2014d
[1] The Los Angeles MSA includes the MDs of Anaheim-Santa Ana-Irvine and Los Angeles-Long Beach-Glendale.
[2] The Los Angeles-Long Beach-Glendale MD includes Los Angeles County.
[3] The Anaheim-Santa Ana-Irvine MD includes Orange County.
MD = Metropolitan District; MSA = Metropolitan Statistical Area

Table 3.11-7 Comparison of Crime Rates in the Project Section, 2019[1]

Jurisdiction	Violent Crime (per 100,000 inhabitants)	Violent Crime (per 100 inhabitants)	Property Crime (per 100,000 inhabitants)	Property Crime (per 100 inhabitants)
California	441.21	0.44	2331.21	2.33
Los Angeles-Long Beach-Anaheim MSA[2]	477.50	0.48	2140.75	2.14
City of Los Angeles	732.15	0.73	2283.34	2.28
Los Angeles-Long Beach-Glendale MD[3]	560.90	0.56	2229.30	2.23

Jurisdiction	Violent Crime (per 100,000 inhabitants)	Violent Crime (per 100 inhabitants)	Property Crime (per 100,000 inhabitants)	Property Crime (per 100 inhabitants)
Vernon	--	24.0	--	433
Bell	--	0.47	--	1.23
Commerce	--	1.08	--	7.84
Pico Rivera	--	0.37	--	1.67
Montebello	--	0.28	--	2.31
Santa Fe Springs	--	0.58	--	5.74
Norwalk	--	0.41	--	1.50
La Mirada	--	0.18	--	1.44
Anaheim-Santa Ana-Irvine, MD[4]	213.69	0.21	1,860.75	1.86
Buena Park	--	0.30	--	2.49
Fullerton	--	0.27	--	2.25
Anaheim	317.30	0.32	2,362.3	2.33
Orange	180	0.18	2,184.0	2.18

Sources: FBI 2020a, 2020b, 2020c, 2020d
[1] 2019 is the most recent year in which crime statistics are available from the Federal Bureau of Investigation database for all above-listed jurisdictions in the resource study area.
[2] The Los Angeles MSA includes the MDs of Anaheim-Santa Ana-Irvine and Los Angeles-Long Beach-Glendale.
[3] The Los Angeles-Long Beach-Glendale MD includes Los Angeles County.
[4] The Anaheim-Santa Ana-Irvine MD includes Orange County.
MD = Metropolitan District; MSA = Metropolitan Statistical Area

The violent crime rate in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area was lower than the state average in 2014: approximately 368.9 crimes occur per 100,000 inhabitants in the Los Angeles Metropolitan Statistical Area, while 396.1 crimes per 100,000 inhabitants occurred in California as a whole in 2014. Property crime in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area was also lower than the state average in 2014: 2,050.4 crimes per 100,000 inhabitants in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area versus 2,441.1 crimes per 100,000 inhabitants in California as a whole in 2014. In comparison to the state of California and Los Angeles County (the Los Angeles-Long Beach-Glendale Metropolitan District), the city of Los Angeles had a higher rate of violent crime and a lower rate of property crime (490.7 crimes per 100,000 inhabitants and 2,128.1 crimes per 100,000 inhabitants, respectively) in 2014, as listed in Table 3.11-6 (FBI 2014a, 2014b, 2014c, 2014d).

The violent crime rate in the Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area increased from 2014 to 2019 and in 2019 was higher than the state average. Violent crime in 2019 was 477.50 crimes per 100,000 inhabitants as compared to 441.21 crimes per 100,000 inhabitants for California as a whole. Property crime in 2019 remained lower than the state average at 2,140.75 crimes per 100,000 inhabitants as compared to 2,331.21 property crimes per 100,000 inhabitants for California as a whole as listed in Table 3.11-7 (FBI 2020a, 2020b, 2020c, 2020d). Calendar year 2019 is the most recent year in which the Federal Bureau of Investigation published crime data for all jurisdictions in the RSA.

Analysis of onboard crime for passenger trains used statistics gathered from Metro and San Francisco Bay Area Rapid Transit. The reported crimes include those committed on board trains and at transit facilities such as stations and parking lots. Compared to statewide crime

totals for Part 1 Offenses (violent or property crimes),[14] crime incidents on heavy rail systems (Metro and San Francisco Bay Area Rapid Transit) in California are lower. In 2014, 20,546 Part 1 Offenses occurred statewide in California, excluding heavy rail system agencies. In 2014, 3,514 Part 1 Offenses occurred on the Metro and San Francisco Bay Area Rapid Transit lines, combined (FBI 2014d). In 2019, 3,967 Part I offenses occurred on the Metro and San Francisco Bay Area Rapid Transit lines. In 2019, 22,310 Part 1 Offenses occurred statewide in California, excluding heavy rail system agencies (FBI 2020d).

Within the Los Angeles County portion of the project section, Vernon, Commerce, and Santa Fe Springs had higher crime rates for both violent and property crimes when compared to the state and the county in 2014. Bell had a higher violent crime rate than the state and county and a lower property crime rate than the state and county. Pico Rivera had a higher violent crime rate than the state and county, but a higher property crime rate only compared to the state in 2014 (FBI 2014a, 2014b, 2014c, 2014d). In 2019 the cities of Los Angeles, Vernon, Commerce, and Santa Fe Springs had higher violent crime rates when compared to the county and state as a whole. Bell had a higher violent crime rate than the state as a whole and a lower property crime rate than the state as a whole (FBI 2020a, 2020b, 2020c, 2020d).

Crime rates in Orange County (the Anaheim-Santa Ana-Irvine Metropolitan District) were also compared with crime rates throughout the state. The violent crime rate in Orange County was lower than the state average in 2014 and in 2019: 198.2 crimes occurred per 100,000 inhabitants in Orange County versus 396.1 crimes per 100,000 inhabitants that occurred in California as a whole in 2014 and 213.7 violent crimes per 100,000 inhabitants versus 444.2 violent crimes per 100,000 inhabitants in 2019. Property crime in Orange County was also lower than the state average in 2014 and 2019: 1,734.7 crimes per 100,000 inhabitants in Orange County versus 2,441.1 crimes per 100,000 inhabitants in California as a whole in 2014 and 1,860.8 crimes per 100,000 inhabitants versus 2,331.2 crimes per 100,000 inhabitants in California as a whole. In comparison to the state of California and Orange County, Anaheim, Buena Park, and Fullerton had lower violent crime rates and property crime rates than the state in 2014, and Buena Park and Anaheim had higher property crime rates than the state in 2019 (FBI 2014a, 2014b, 2014c, 2014d, 2020a, 2020b, 2020c, 2020d).

A comparison of violent crime and property crime rates in the state and Orange County for 2014 and 2019 is provided in Table 3.11-6 and Table 3.11-7. In comparison to the state of California and Orange County, Anaheim had higher rates of both violent crime and property crime as compared to the county in 2014 and 2019; however, both rates were lower than those of the state in 2014 and 2019 (FBI 2014a, 2014b, 2014c, 2014d, 2020a, 2020b, 2020c, 2020d).

Emergency Medical Services

Emergency medical services are provided by the local fire departments, emergency medical service agencies, and independent ambulance services. Nineteen hospitals provide emergency medical service to the safety and security RSAs:

- White Memorial Medical Center
- Barlow Respiratory Hospital
- Good Samaritan Hospital
- Kaiser Foundation Hospital – Mental Health Center

[14] Part I offenses are defined in the Federal Bureau of Investigation Uniform Crime Reporting Statistics as including murder and nonnegligent homicide, rape (legacy and revised), robbery, aggravated assault, burglary, motor vehicle theft, larceny-theft, and arson). https://www.ucrdatatool.gov/offenses.cfm.

- Los Angeles County + University of Southern California Medical Center/Los Angeles County General
- Los Angeles County + University of Southern California Medical Center
- University of Southern California Kenneth Norris Jr. Cancer Hospital
- Keck Hospital of University of Southern California
- Los Angeles Community Hospital
- East Los Angeles Doctors Hospital
- White Memorial Medical Center Montebello
- Norwalk Community Hospital
- University of California, Irvine Medical Center
- St. Joseph Hospital Orange
- Children's Hospital of Orange County
- Anaheim Regional Medical Center
- Anaheim Global Medical Center
- St. Jude Medical Center
- Kindred Hospital

The Los Angeles County + University of Southern California Medical Center is also a level 1 trauma center capable of providing total care for every aspect of an injury. These facilities are presented on Figure 3.11-5, sheets 1 through 6, and Appendix 3.11-A, Table 3.11-A-1, provides the addresses of these hospitals.

Five ground ambulance services operate in the safety and security RSAs. These service providers and their locations are provided in Appendix 3.11-A, Table 3.11-A-2. Air ambulance services are provided by Mercy Air, which serves Los Angeles County + University of Southern California Medical Center and the University of California Irvine Medical Center.

Emergency Services at Fixed Facilities

Fixed facilities include stations and maintenance facilities. Fixed facilities in the project section include the proposed light maintenance facility (LMF) site at the existing BNSF Railway (BNSF) railroad yard at 26th Street, the proposed LMF site at 15th Street, passenger rail stations including locations for the proposed HSR station options, and layover tracks. Table 3.11-8 provides information on site-specific conditions related to fire, law enforcement, and emergency medical services at fixed facility sites.

Table 3.11-8 Fire, Law Enforcement, and Emergency Medical Services Locations for Fixed Facilities in the Project Section

Fixed Facility	Closest Fire Station	Closest Police/Sheriff Office	Closest Hospital
Passenger Rail Stations			
Norwalk/Santa Fe Springs Station (existing and station option)	0.8 mile: Santa Fe Springs Fire Department (11300 Greenstone Ave, Santa Fe Springs, CA 90670)	0.5 mile: Norwalk Sheriff Station (04) (12335 Civic Center Dr, Norwalk, CA 90650)	0.4 mile: Norwalk Community Hospital (13222 Bloomfield Ave, Norwalk, CA 90650)

Fixed Facility	Closest Fire Station	Closest Police/Sheriff Office	Closest Hospital
Commerce Station (existing)	1 mile: Los Angeles County Fire Department Station 27 (6031 Rickenbacker Rd, Commerce, CA 90040)	2.7 miles: Bell Police Department (6326 Pine Ave, Bell, CA 90201)	3 miles: Los Angeles Community Hospital (4081 E Olympic Blvd, Los Angeles, CA 90023)
Commerce Station (relocated)	1.4 miles: Los Angeles County Fire Department Station 27 (6031 Rickenbacker Rd, Commerce, CA 90040)	3.2 miles: Bell Police Department (6326 Pine Ave, Bell, CA 90201)	4 miles: Los Angeles Community Hospital (4081 E Olympic Blvd, Los Angeles, CA 90023)
Buena Park Station (existing)	0.5 mile: Orange County Fire Authority Station 62 (7780 Artesia Blvd, Buena Park, CA 90621)	0.9 mile: Buena Park Police Department (6640 Beach Blvd, Buena Park, CA 90622)	4.9 miles: Norwalk Community Hospital (13222 Bloomfield Ave, Norwalk, CA 90650)
Buena Park Station (relocated)	0.6 mile: Orange County Fire Authority Station 62 (7780 Artesia Blvd, Buena Park, CA 90621)	1.2 miles: Buena Park Police Department (6640 Beach Blvd, Buena Park, CA 90622)	4.1 miles: Norwalk Community Hospital (13222 Bloomfield Ave, Norwalk, CA 90650)
Fullerton Transportation Center and Station (existing and station option)	0.2 mile: Fullerton Fire Department (312 E Commonwealth Ave, Fullerton, CA 92832)	0.2 mile: Fullerton Police Department (237 W Commonwealth Ave, Fullerton, CA 92832)	6 miles: UCI Medical Center (101 The City Dr S, Orange, CA 92868)
ARTIC	1 mile: Anaheim Fire Department - Station 7 (2222 E Ball Rd, Anaheim, CA 92806)	2.7 miles: Anaheim Police Department (425 S Harbor Blvd, Anaheim, CA 92805)	1 mile: UCI Medical Center (101 The City Dr S, Orange, CA 92868)
Maintenance of Infrastructure			
Light maintenance facility 15th Street	0.3 mile: Los Angeles Fire Department – Station 17 (1601 S Santa Fe Ave, Los Angeles, CA 90021)	2.0 miles: Los Angeles Police Department – Newton Community Police Station (3400 S Central Ave, Los Angeles, CA 90011)	1.5 miles: White Memorial Medical Center (1720 E Cesar E Chavez Ave, Los Angeles, CA 90033)
Light maintenance facility 26th Street	1.1 miles: Los Angeles Fire Department – Station 13 (3375 Fruitland Ave, Vernon, CA 90058)	1.7 miles: Vernon Police Department (4305 S Santa Fe Ave, Vernon, CA 90058)	4.4 miles: White Memorial Medical Center (1720 E Cesar E Chavez Ave, Los Angeles, CA 90033)
Layover Tracks			
Los Angeles	0.5 mile: Los Angeles Fire Department – Station 17 (1601 S Santa Fe Ave, Los Angeles, CA 90021)	2.6 miles: Los Angeles Police Department – Newton Community Police Station (3400 S Central Ave, Los Angeles, CA 90011)	2.1 miles: White Memorial Medical Center (1720 E Cesar E Chavez Ave, Los Angeles, CA 90033)

Fixed Facility	Closest Fire Station	Closest Police/Sheriff Office	Closest Hospital
Anaheim	1.2 mile: Anaheim Fire Department – Station 7 (2222 E Ball Rd, Anaheim, CA 92806)	2.4 miles: Anaheim Police Department (425 S Harbor Blvd, Anaheim, CA 92805)	1.9 mile: UCI Medical Center (101 The City Dr S, Orange, CA 92868)

Source: Google Earth 2017
ARTIC = Anaheim Regional Transportation Intermodal Center; UCI = University of California, Irvine

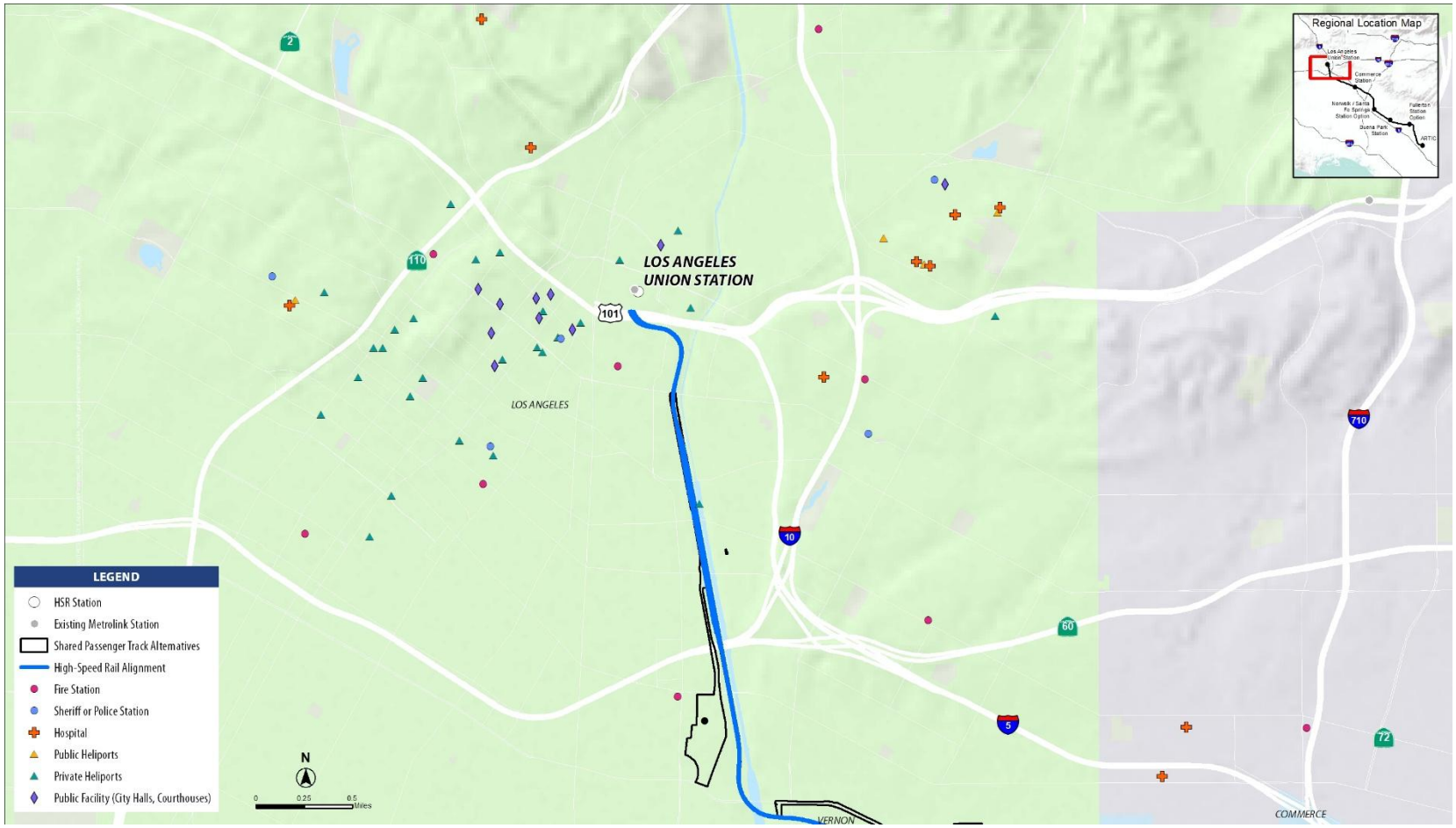
Passenger rail stations in the project section include Norwalk/Santa Fe Springs Metrolink Station, Commerce Metrolink Station, Buena Park Metrolink Station, Fullerton Metrolink/Amtrak Station, and ARTIC. The Norwalk/Santa Fe Springs Metrolink Station would be modified within part of the existing site and on adjacent industrial uses, with an option to be an HSR station. The Fullerton Metrolink/Amtrak Station would also be modified, with an option to be an HSR station. Commerce Metrolink Station and Buena Park Metrolink Station would not become HSR station stops, but they would be relocated and the HSR would travel through these stations. HSR station facilities would be added at ARTIC. The Buena Park Metrolink Station would be relocated to an area between South Coyote Creek and Beach Boulevard, approximately 0.7 mile northwest of its current location, to accommodate HSR service. The new station location would be in Buena Park. The relocated Buena Park Metrolink Station would be approximately 0.1 mile farther northwest from the nearest fire station, 0.3 mile farther from the nearest law enforcement facilities, and approximately 0.8 mile closer to the nearest emergency service (hospital) facilities. Commerce Metrolink Station would be relocated on the main line at the border of Commerce and Montebello to an area northeast of the intersection of Telegraph Road and Maple Avenue, approximately 0.75 mile east of its current location. The new station location would be in both Commerce and Montebello; the platform and facilities north of the platform would be in Commerce and the station facilities south of the platform would be in Montebello. The relocated Commerce Metrolink Station would be approximately 0.4 mile farther east from the nearest fire station, 0.5 mile farther from the nearest law enforcement facilities, and approximately 1 mile farther from the nearest emergency service (hospital) facilities. No changes to existing emergency service requirements are anticipated for the relocated Buena Park or Commerce Metrolink Stations.

Fixed facilities in the project section also include layover tracks, where trains could be serviced during the day and stored at night. The layover track locations are in Los Angeles on the west bank of the Los Angeles River between Seventh and Eighth Streets, and Anaheim between Ball Road and State College Boulevard.

Emergency Response Plans

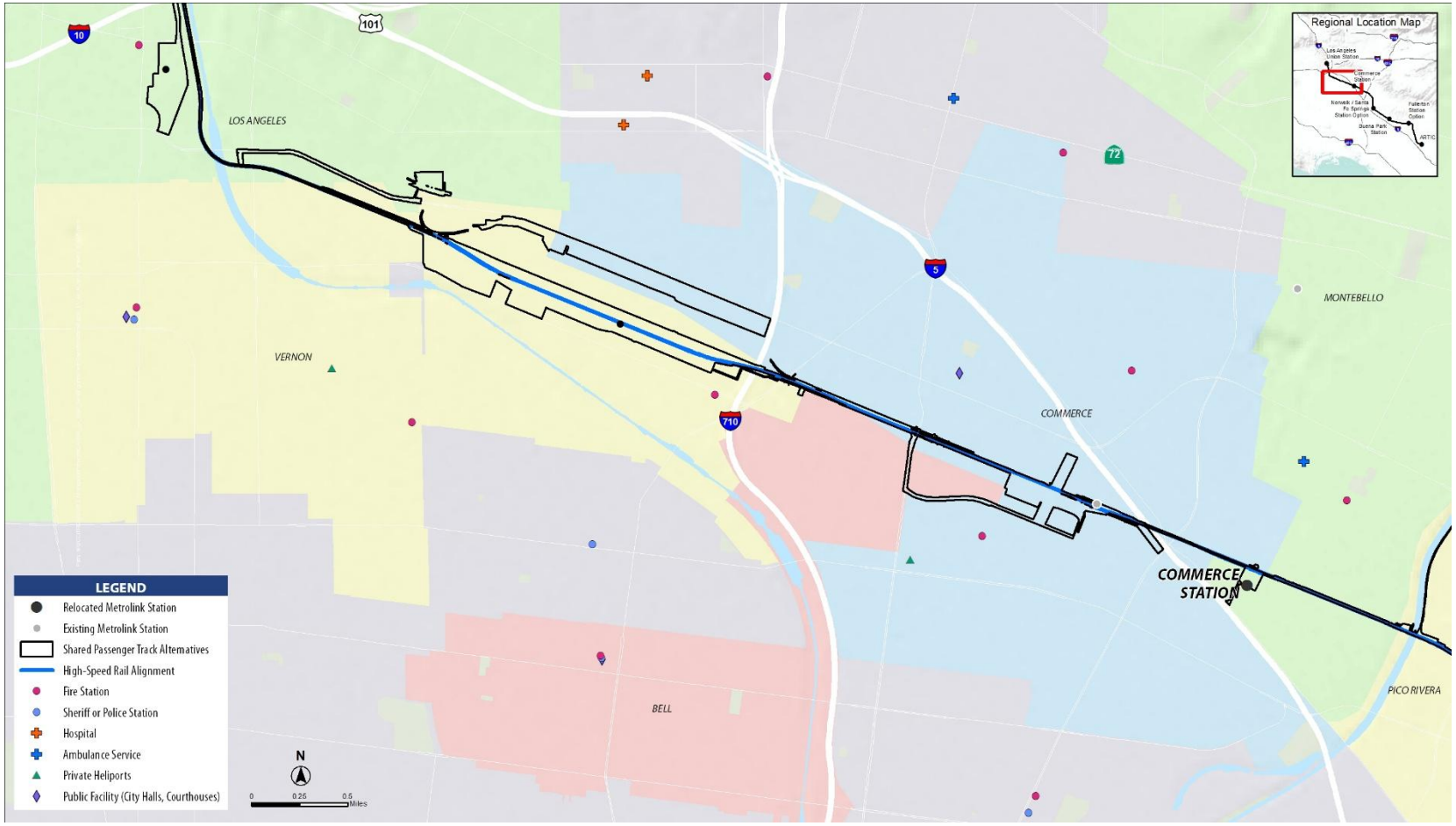
Emergency response plans for affected cities in Los Angeles County and Orange County are included in emergency operations requirements summarized in Table 3.11-1. Counties and cities also operate under the guidance of emergency operations plans.[15] These plans outline procedures for fire, law enforcement, and emergency medical service operations during emergencies such as earthquakes, floods, fires, and other natural disasters; hazardous materials spills; transportation emergencies; civil disturbance; and terrorism. The plans also identify the location of emergency response facilities, such as emergency dispatch and operations centers, public facilities, and hospitals or other medical facilities. Figure 3.11-5, sheets 1 through 6, and Appendix 3.11-A, Table 3.11-A-1 and Table 3.11-A-2, identify these facilities in the project section.

[15] Orange County and the City of Anaheim use a Standardized Emergency Management System for managing emergencies involving multiple jurisdictions and agencies.



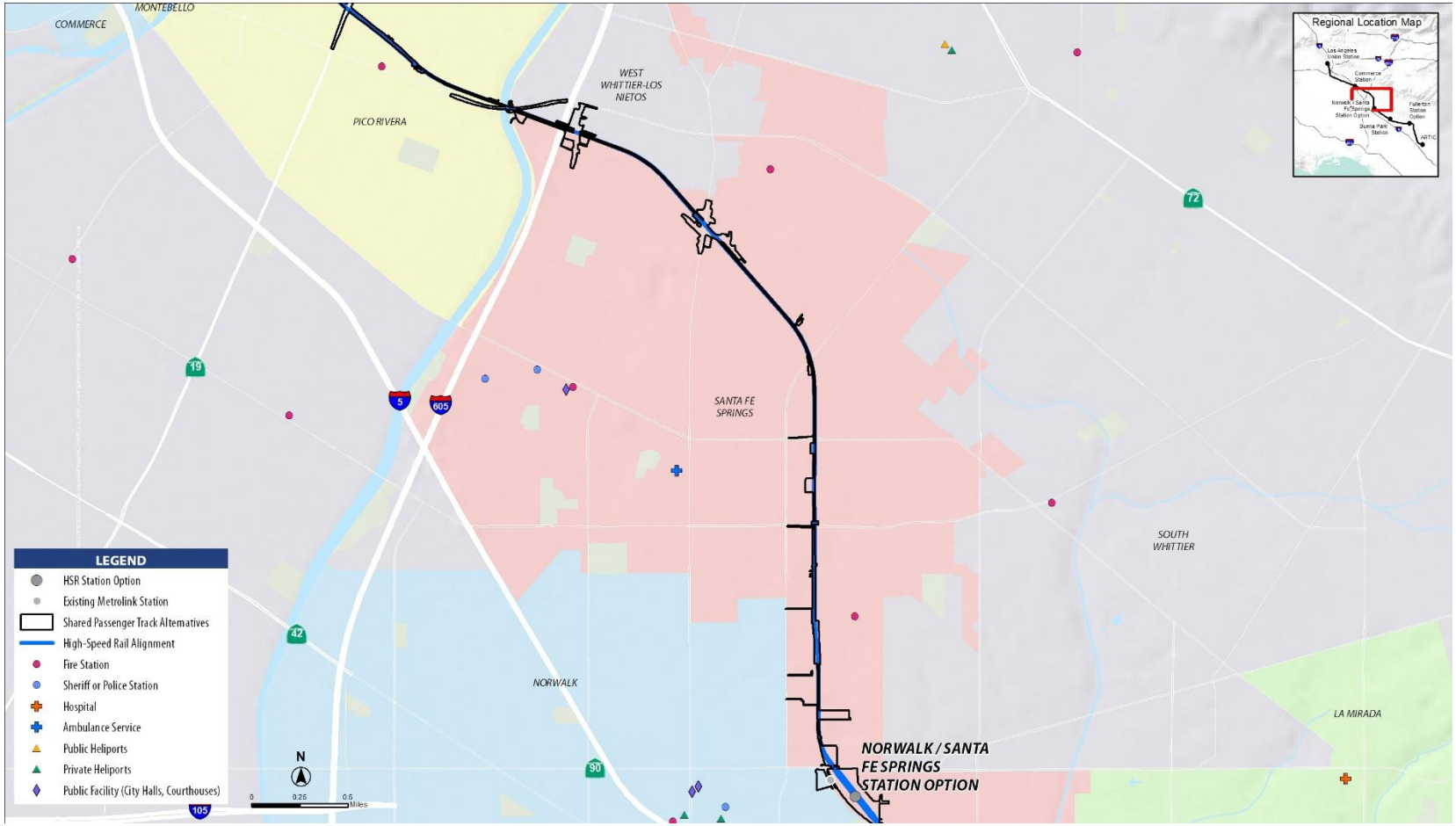
Sources: Caltrans 2024; ESRI 2024a; CalHHS 2024; HIFLD 2024a, 2024b; County of Los Angeles 2024

Figure 3.11-5 Emergency and Community Safety and Security Facilities (Sheet 1 of 6)



Sources: Caltrans 2024; ESRI 2024a; CalHHS 2024; HIFLD 2024a, 2024b; County of Los Angeles 2024

Figure 3.11-5 Emergency and Community Safety and Security Facilities (Sheet 2 of 6)

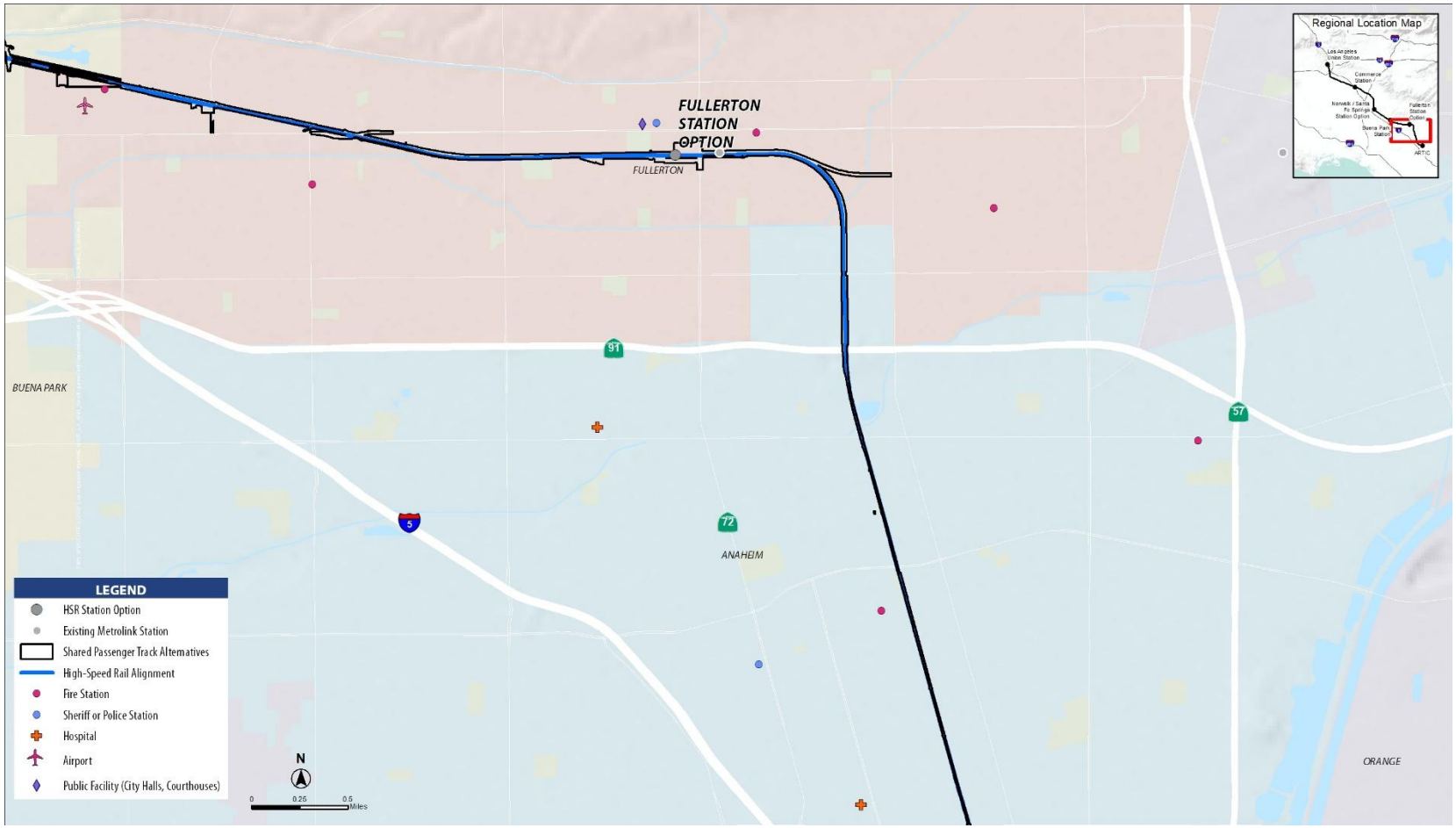


Sources: Caltrans 2024; ESRI 2024a; CalHHS 2024; HIFLD 2024a, 2024b; County of Los Angeles 2024

Figure 3.11-5 Emergency and Community Safety and Security Facilities (Sheet 3 of 6)

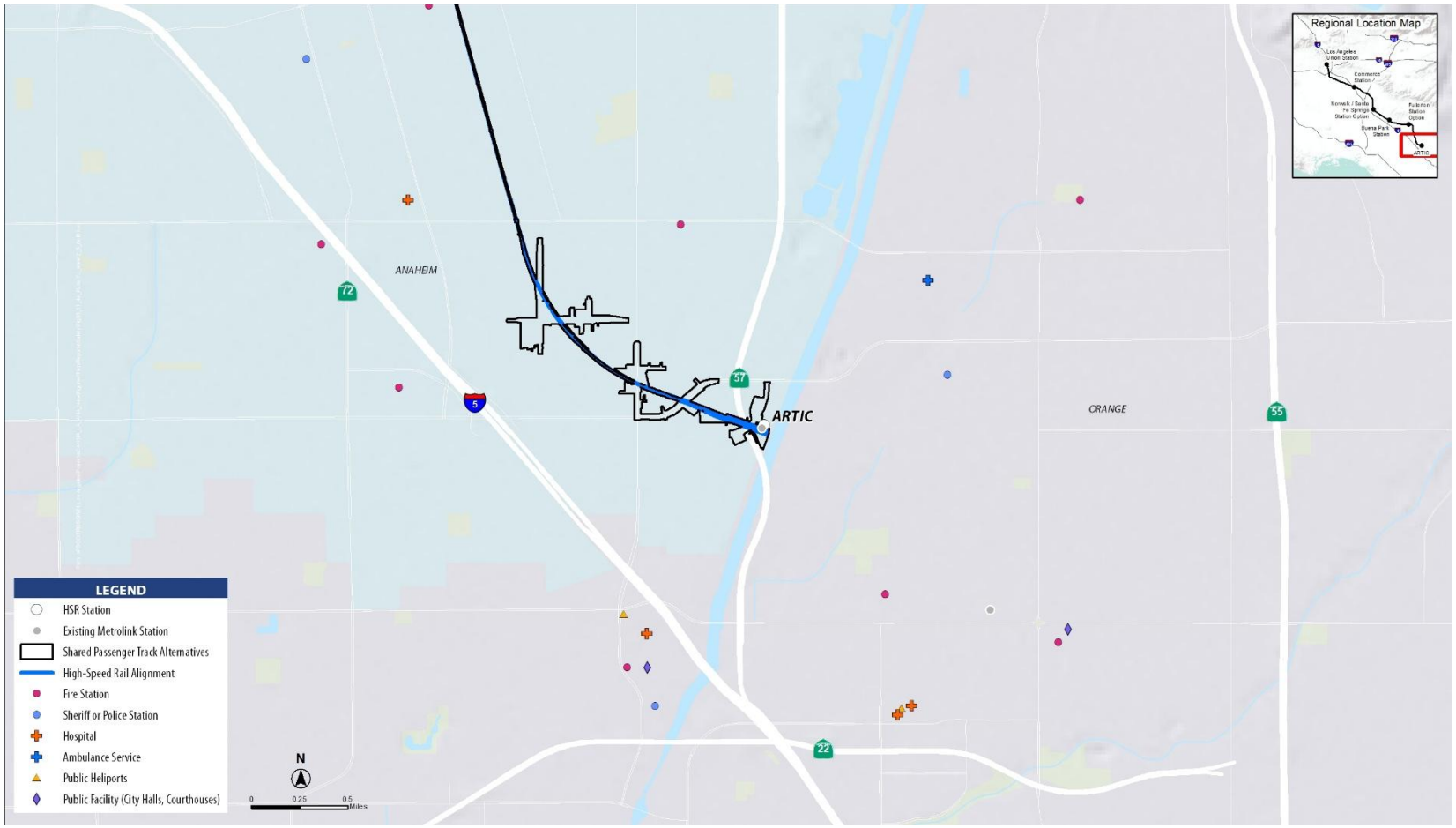
Sources: Caltrans 2024; ESRI 2024a; CalHHS 2024; HIFLD 2024a, 2024b; County of Los Angeles 2024

Figure 3.11-5 Emergency and Community Safety and Security Facilities (Sheet 4 of 6)



Sources: Caltrans 2024; ESRI 2024a; CalHHS 2024; HIFLD 2024a, 2024b; County of Los Angeles 2024

Figure 3.11-5 Emergency and Community Safety and Security Facilities (Sheet 5 of 6)



Sources: Caltrans 2024; ESRI 2024a; CalHHS 2024; HIFLD 2024a, 2024b; County of Los Angeles 2024

Figure 3.11-5 Emergency and Community Safety and Security Facilities (Sheet 6 of 6)

The LOSSAN Corridor Agency has adopted safety program goals as part of the LOSSAN Business Plan. Railroads operating in the LOSSAN Corridor have adopted emergency preparedness programs as part of their operating plans. Metrolink emergency preparedness program plans include (Metrolink 2016):

- SSP plan
- Incident Response Plan
- Emergency Preparedness Plan
- Threat and Vulnerability Assessment
- Technology of Tunnel Intrusion Detection Plan
- Incident Communication Plan

Cal OES has developed guidelines for a Standardized Emergency Management System (Cal OES 2009). The Standardized Emergency Management System is the system required by California Code Section 8607(a) for managing emergencies involving multiple jurisdictions and agencies, including standard procedures for emergency response personnel to request resources and equipment from other agencies (Cal OES 2009). The County of Los Angeles and the City of Los Angeles apply National Incident Management System, Standardized Emergency Management System, and Incident Command System protocols in responding to emergency incidents.

3.11.5.2 Community Safety and Security

This section discusses community safety and security in relation to the topics of vehicles, bicyclists and pedestrians, railroad operations, airports, schools, flooding, high-risk facilities and fall hazards, geotechnical hazards, and landfills.

Pedestrians and Bicycles

According to FRA data, California was ranked first in the nation in pedestrian rail-trespass fatalities, with 22 fatalities statewide for 2023 (FRA 2023).

To further illustrate the history along the alignment, three incidents involving pedestrians occurred at the La Palma Avenue roadway-railroad crossing in Anaheim: two in 2010 and one in 2013. In the 2010 and 2013 incidents a passenger train struck a pedestrian. All three incidents resulted in fatalities. One incident involving a pedestrian occurred at the Orangethorpe Avenue crossing in 2008, resulting in a fatality. One incident involving a cyclist occurred at the Sycamore Street crossing in 2016, resulting in a fatality. Incidents involving pedestrians occurred at the Ball Road crossing in 2018 and at the Cerritos Avenue crossing in 2019, resulting in one fatality.

Pedestrian and cyclist safety issues associated with the LOSSAN Corridor in the safety and security RSAs primarily result from the conflict between pedestrians and bicyclists and trains at at-grade crossings.

There are 14 at-grade (pedestrian and bicycle) crossings in the safety and security RSAs. Intersections near the at-grade crossings are either signalized or stop controlled. Because of the urban nature of the safety and security RSAs, most of these intersections have marked crosswalks for safe pedestrian movement or sidewalks that meet the standards of the Americans with Disabilities Act.

Pedestrian facilities at the existing Norwalk/Santa Fe Springs Station include access via sidewalks on Imperial Highway. There are no separate pedestrian paths or trails from the nearby neighborhoods. However, sidewalks are available on both sides along the streets in the station vicinity and crosswalks are provided for pedestrian movements at most of the intersections. The existing station consists of two 500-foot-long platforms and a pedestrian bridge that connects Los Angeles–bound and Oceanside-bound platforms. Pedestrian access to the platforms is available via multiple sidewalk paths from the adjacent parking lots, and a pedestrian overpass is provided to cross between the platforms.

Bicycle facilities at Norwalk/Santa Fe Springs Station include Class II bikeways that provide direct access to and egress from Norwalk/Santa Fe Springs Station via Bloomfield Avenue from the north and Imperial Highway, Orden Drive, and Foster Road from the southeast within the RSA.

Pedestrian facilities at Fullerton Metrolink/Amtrak Station are generally well connected by a sidewalk system on the nearby streets. There are no separate pedestrian paths or trails from the nearby neighborhoods. However, sidewalks are available on both sides along the streets in the station vicinity and crosswalks are provided for pedestrian movements at most of the intersections. The existing Fullerton Metrolink/Amtrak Station includes two platforms and a pedestrian overpass that connects Los Angeles–bound and Oceanside-bound platforms and an Amtrak station adjacent to the Los Angeles–bound platform.

Few existing bikeway facilities provide access to the station area (Class II via Valencia Drive from the west, Highland Avenue from the south, and Orangethorpe Avenue from the west; Class III via Richmond Avenue north of State Route 91). Bicycle lockers at the existing Fullerton Station are available for reservation or at a first-come-first-serve basis.

Pedestrian facilities at ARTIC include the sidewalk system on the nearby streets and connection to the Santa Ana River Trail. The station area is generally well connected and sidewalks are available on both sides along the streets in the station vicinity and crosswalks are provided for pedestrian movements at most of the intersections.

ARTIC has limited connections to the surrounding area with bikeway facilities (aside from a Class I bikeway along the Santa Ana River Trail/OC Loop). Bicycle lockers at the existing ARTIC are available for reservation or on a first-come-first-serve basis.

Existing pedestrian and bicycle facilities at Norwalk/Santa Fe Springs Station, Fullerton Station, and ARTIC are described in Section 3.2 and in the *Los Angeles to Anaheim Project Section Transportation Technical Report* (Authority 2025a).

Railroad Accidents and Incidents

In 2023, California ranked second for most roadway-railroad grade crossing accidents or incidents in the nation and first for roadway-railroad grade crossing fatalities (FRA 2024). There were 190 roadway-railroad grade crossing accidents or incidents in Los Angeles and Orange Counties from January 2018 to December 2023. One hundred and fifty-nine roadway-railroad crossing accidents or incidents occurred in Los Angeles County, with fifty-two occurring in the city of Los Angeles; twenty-one of these accidents or incidents occurred in the RSAs. Table 3.11-9 indicates the number of roadway-railroad crossing incidents from January 2018 to December 2023 in cities in the project section. Thirty-eight of these roadway-railroad crossing incidents occurred in the RSAs in Los Angeles County. Fourteen roadway-railroad grade crossing incidents occurred in the LOSSAN Corridor in the project section between January 2018 and December 2023. Table 3.11-10 indicates these incidents resulted in 8 fatalities and 13 injuries.

Table 3.11-9 Number of Roadway-Railroad Crossing Incidents by City in the Project Section, 2018–2023

City	Total within the City	Total within the LOSSAN Corridor in the Project Section
Los Angeles County		
Los Angeles	52	0
Vernon	2	0
Bell	0	0
Commerce	5	0
Pico Rivera	1	0
Montebello	2	0

City	Total within the City	Total within the LOSSAN Corridor in the Project Section
Santa Fe Springs	7	6
Norwalk	1	1
La Mirada	2	2
Orange County		
Buena Park	0	0
Fullerton	0	0
Anaheim	7	5
TOTAL	**79**	**14**

Source: FRA 2024
LOSSAN Corridor = Los Angeles – San Diego – San Luis Obispo Rail Corridor; project section = Los Angeles to Anaheim Project Section; RSA = resource study area

Seventy-two roadway-railroad crossing incidents occurred in Los Angeles County in the project section in 2018 to 2023, 52 of which occurred in the city of Los Angeles. Seven roadway-railroad crossing incidents occurred in Santa Fe Springs, six of which occurred in the LOSSAN Corridor. One of the six incidents that occurred in Santa Fe Springs involved a Metrolink train and two involved an Amtrak train. One roadway-railroad crossing incident occurred in the LOSSAN Corridor in Norwalk and two incidents occurred in the LOSSAN Corridor in La Mirada. None of these incidents involved a Metrolink train or an Amtrak train. A total of nine roadway-railroad crossing incidents occurred within the LOSSAN Corridor in Los Angeles County.

Seven roadway-railroad crossing incidents occurred in Orange County in the project section in 2018 to 2023, all of which occurred in Anaheim. No roadway-railroad crossing incidents occurred in Fullerton or Buena Park in 2018 to 2023. Of the seven incidents that occurred in Anaheim, five occurred in the LOSSAN Corridor and involved either a Metrolink train or an Amtrak train; one of these involved a fatality and three involved injuries. One incident involving an occupied vehicle occurred at the South Street crossing in 2017, and one incident involving an unoccupied vehicle occurred at the Orangethorpe Avenue crossing in 2018. No injuries or fatalities were reported from these incidents. One incident occurred at the State College Boulevard crossing in 2018 involving an occupied vehicle that resulted in an injury.

Additional information on train incidents is presented in Table 3.11-A-3, Table 3.11-A-4, and Table 3.11-A-5 in Appendix 3.11-A. Appendix 3.11-A, Table 3.11-A-6, identifies the locations of at-grade crossing incidents in the region, and information on existing railroad crossings is presented in Appendix 3.11-B. Further discussion of existing vehicular traffic conditions is included in Section 3.2 and in the *Los Angeles to Anaheim Project Section Transportation Technical Report* (Authority 2025a).

Railroad Operations

The LOSSAN Rail Corridor Agency is a joint powers authority that is managed by the Orange County Transportation Authority and governed by a board of directors that includes rail owners, rail operators, and planning agencies along the corridor. The Orange County Transportation Authority was selected as the managing agency of the LOSSAN Rail Corridor Agency in November 2013 (LOSSAN Rail Corridor Agency 2017). As the managing agency, the Orange County Transportation Authority provides management and administrative support for the LOSSAN Rail Corridor Agency throughout the six counties served by the LOSSAN Rail Corridor Agency. Within the LOSSAN Corridor, BNSF and Union Pacific Railroad (UPRR) operate freight trains, Amtrak provides passenger service on its Pacific Surfliner and Southwest Chief trains, and Metrolink provides commuter service on its Orange County Line and 91 Line.

BNSF and UPRR operate freight rail service in the project section. According to the 2018 *California State Rail Plan*, the average daily freight train volume within the LOSSAN Corridor from

Los Angeles to Anaheim in 2013 was 32 freight trains (Caltrans 2018). Future freight-related projects (excluding roadway/rail grade-separation projects) mentioned in the Southern California Association of Governments 2016 Regional Transportation Plan/Sustainable Communities Strategy and within the area include additional third main line tracks for the BNSF San Bernardino Subdivision, Los Angeles to Fullerton.

Metrolink is governed by the Southern California Regional Rail Authority, a joint powers authority consisting of an 11-member board representing the transportation commissions of Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. The Southern California Regional Rail Authority dispatches trains in the rail corridor in the city of Los Angeles. Amtrak operates two routes along the project section: the Pacific Surfliner Route from San Luis Obispo to San Diego, with stops in Los Angeles, Fullerton, and Anaheim; and the Southwest Chief, a long-distance train between Chicago and Los Angeles, which stops in Fullerton and Los Angeles.

In addition to existing Metrolink and Amtrak passenger rail service., Riverside County Transportation Commission is planning the Coachella Valley – San Gorgonio Pass Rail Corridor Service, which would run within the existing rail corridor between LAUS and Coachella in Riverside County. The passenger rail service is considering multiple alignments, including segments where service would operate in the LOSSAN Corridor between LAUS and Fullerton.

The *LOSSAN Rail Corridor Agency Business Plan FY 2022-23 / FY 2023-24* (LOSSAN Rail Corridor Agency 2022) details safety and security on board passenger trains, at stations, and along the railroad right-of-way in the LOSSAN Corridor. The LOSSAN Rail Corridor Agency primarily serves in an oversight and coordination role with regard to safety and security on board trains, relying on the extensive onboard safety and security programs and policies already put in place by Amtrak and Metrolink. The Amtrak Police Department is responsible for monitoring and responding to onboard security incidents. Amtrak Police perform checked baggage screening and onboard security checks and provide canine units when applicable. Amtrak uses a forward-facing camera system to help aid in accident/incident investigation. This provides crews and first responders with a valuable tool to assist with post-accident/incident investigation and can help to clear an incident scene more quickly so that trains can proceed. In addition, Amtrak has installed inward-facing cameras on locomotives and cab cars and has developed an action plan for installation nationwide (Amtrak 2016, 2017). Additional law enforcement services are provided by local agencies and county sheriff's departments along portions of the LOSSAN Corridor in coordination with Amtrak.

The LOSSAN Rail Corridor Agency also coordinates safety and security activities with additional stakeholders and right-of-way owners along the corridor including the State of California, LOSSAN Rail Corridor Agency member agencies, UPRR, BNSF, North County Transit District, Operation Lifesaver, Department of Homeland Security, and first responders along the LOSSAN Corridor. Most of the stations along the LOSSAN Corridor are outfitted with security cameras that feed directly to a local sheriff's office or operations center that can dispatch emergency services. Some city-owned stations also offer security guards and long-term parking security (LOSSAN Rail Corridor Agency 2022). A centralized monitoring station operated by the LOSSAN Rail Corridor Agency will provide local law enforcement remote access to the security cameras at the stations they are responsible for patrolling once complete (LOSSAN Rail Corridor Agency 2022). Metrolink contracts with the Los Angeles County Sheriff's Department to provide safety and security services on trains and along routes (Metrolink 2017).

The LOSSAN Business Plan (LOSSAN Rail Corridor Agency 2019) states that the Amtrak Police Department, TSA personnel, and law enforcement officers from federal, state, local, rail, and transit agencies can be deployed at rail stations and along the railroad right-of-way to exercise counterterrorism and incident response. Coordinated response activities include heightened station and right-of-way patrols, increased security presence on board trains, explosives detection canine sweeps, random passenger bag inspections, and counter-surveillance.

Safety incidents along the LOSSAN Corridor include injuries and fatalities from incidents at at-grade crossings, trespassing on railroad property, train collisions, and derailment. PTC is a predictive collision-avoidance technology designed to increase safety by stopping a train in

motion where the continued movement may result in an accident. The U.S. Rail Safety Improvement Act of 2008 required the deployment of PTC technology across most railroad systems, including the LOSSAN Corridor, by December 31, 2018. PTC equipment has been installed along the LOSSAN Corridor by Amtrak, Metrolink, and BNSF (Amtrak 2021; BNSF 2021; Metrolink 2022) and Pacific Surfliner Trains operating in the LOSSAN Corridor as of December 31, 2018 (LOSSAN Rail Corridor Agency 2019).

Table 3.11-10 indicates the number of at-grade roadway-railroad crossing incidents[16] involving casualties or property damage in the cities in the project section. Additional information on train accidents and incidents is presented in Table 3.11-A-3, Table 3.11-A-4, and Table 3.11-A-5 in Appendix 3.11-A. Appendix 3.11-A, Table 3.11-A-6, identifies the locations of occurrence of at-grade crossing incidents in the region, and information on existing railroad crossings is presented in Appendix 3.11-B.

Table 3.11-10 Number of At-Grade Crossing Incidents with Casualties or Property Damage by City in the Project Section, 2018–2023

City	Incidents				Casualties	
	Total	Type of Incident				
		Fatal	Injury	Property Damage Only	Killed	Injured
Los Angeles	52	6	7	35	7	9
Vernon	2	0	0	2	0	0
Bell	0	0	0	0	0	0
Commerce	5	0	1	4	0	1
Pico Rivera	1	1	0	0	1	0
West Whittier [17]	0	0	0	0	0	0
Montebello	2	0	1	1	0	1
Santa Fe Springs	7	0	1	6	0	1
Norwalk	1	0	0	1	0	0
La Mirada	2	0	0	2	0	0
Buena Park	0	0	0	0	0	0
Fullerton	0	0	0	0	0	0
Anaheim	7	1	3	3	1	3
Total	**79**	**8**	**13**	**54**	**9**	**15**

Source: FRA 2024
Data are for January 2018 through December 2023.

As reported in Table 3.11-10, 79 roadway-railroad grade crossing incidents occurred in the project section between January 2018 and December 2023. These incidents resulted in 8 fatalities and 13 injuries. Table 3.11-A-3, Table 3.11-A-4, and Table 3.11-A-5 in Appendix 3.11-A provide detailed information on the roadway-railroad crossing incidents. Appendix 3.11-A,

[16] *Train accidents* are defined as a safety-related event involving on-track equipment, whether standing or moving, including derailments and collisions (FRA 2014).
[17] West Whittier is not an incorporated city and is a portion of unincorporated Los Angeles County.

Table 3.11-A-6, identifies the locations of at-grade crossing incidents in the region. Appendix 3.11-B provides information on existing railroad crossings.

Airports, Heliports, and Airstrips

There is one public-service airport within 2 miles of the project section: Fullerton Municipal Airport in Orange County is less than 0.1 mile from the existing Fullerton Metrolink/Amtrak Station (Figure 3.11-5, sheet 4) (FAA 2016).

As a public-service airport, Fullerton Municipal Airport is subject to the *Airport Environs Land Use Plan for Fullerton Municipal Airport* prepared by the Orange County Airport Land Use Commission (2019) for regulating land use within airport safety zones to minimize airport hazards and risks of accidents.[18] Fullerton Municipal Airport has one runway and three heliports. The Orange County Fire Authority, Anaheim Police Department, and CHP maintain operations hangars at the airport. The Anaheim Police Department heliport currently houses three helicopters. University of California, Irvine Medical Center in Orange operates heliports at 101 The City Drive South, approximately 1.2 miles south of the project section. The Los Angeles County + University of Southern California Medical Center in Los Angeles operates heliports at 2051 Marengo Street, approximately 1.6 miles northwest of the project section. The Metropolitan Water District operates a heliport at 700 Alameda Street that is 295 feet from the project.

In addition to the heliports at Fullerton Municipal Airport, there are 33 private heliports and 8 public heliports within 2 miles of the project section. These include City of Los Angeles Police Department Hooper Heliport, approximately 0.2 mile from the project section, and James K. Hahn City Hall Heliport, approximately 0.7 mile from the project section.

Educational Facilities

There are a total of 40 educational facilities within 0.25 mile of the project footprint for both Shared Passenger Track Alternatives. These include schools in the Los Nietos School District, Whittier Union High School District, Norwalk-La Mirada Unified School District, Fullerton School District, and Anaheim Elementary School District.

Table 3.11-11 lists the educational facilities within the RSAs for the Shared Passenger Track Alternatives and the HSR station options, including private and public schools, early and continued education facilities, and day cares.[19]

Table 3.11-11 Educational Facilities within 0.25 Mile of Shared Passenger Track Alternatives A and B and High-Speed Rail Station Option Footprints

School 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

[18] On January 2, 2025, two people aboard a plane died and 19 people working inside a building were injured after a small plane crashed into a Fullerton furniture manufacturing building north of the Fullerton Municipal Airport.
[19] As noted in Table 3.11-2, California Code of Regulations, Title 5, Section 14010(d), requires a safety study for new school sites within 1,500 feet (approximately 0.25 mile) of an existing railroad track.

School 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

School Name	Street Address	Approximate Distance/ Direction from Project Footprint
Fullerton First United Methodist Preschool	114 N Pomona Ave, Fullerton 92832	627 feet north
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)

High-Risk Facilities and Fall Hazards

High-risk facilities, such as oil and natural gas pipelines and utilities, and fall hazards, including bridges and industrial facilities with tall structures, could pose threats to project operations in the event of an incident at those facilities. High-risk utilities include:

- Petroleum product pipelines
- Oxygen, chlorine, and toxic or flammable gases or liquids pipelines
- Natural gas pipelines greater than 6 inches nominal outside pipe diameter
- Natural gas pipelines with normal operating pressures greater than 60 pounds per square inch gauge
- Underground electric supply lines, conductors, or cables having a potential to ground of more than 300 volts, either directly buried or enclosed in duct or conduit, which do not have concentric grounded or other effectively grounded metal shields or sheaths
- Water in pressured pipelines (including potable water, irrigation water, industrial water)
- Sanitary sewer force mains

High-risk utility conflicts are defined as high-risk utilities that cross the track or run parallel to the track in the project section.

Section 3.6 identifies major and high-risk utility conflicts in the RSAs. Figure 3.6-2, sheets 1 through 3, in Section 3.6 identifies the locations of major and high-risk utilities in the project section including electric substations, electric transmission lines, natural gas stations, and natural gas and hazardous liquid pipelines.

Table 3.6-16 and Table 3.6-17 in Section 3.6 identify potential conflicts between existing major and high-risk utilities of the project that are either abandoned or need to be relocated or removed for HSR operations. There are additional utility conflicts that will need to be protected in place or do not fall under the categories of major or high risk. Locations of all potential utility conflicts are

illustrated in engineering drawings contained in the *Los Angeles to Anaheim Draft Preliminary Engineering for Project Definition* (Authority 2024).

The 15th Street LMF for Shared Passenger Track Alternative B would result in 5 additional major and high-risk utility conflicts in the city of Los Angeles that require relocation (3 sewers, 1 storm drain, and 1 overhead electrical line), and 24 additional utility conflicts that would require protection in place (for full details of locations of utility conflicts, refer to the *Los Angeles to Anaheim Draft Preliminary Engineering for Project Definition*).

Construction of the optional Norwalk/Santa Fe Springs HSR platform and station facilities would not create utility conflicts additional to those identified for Shared Passenger Track Alternatives A and B. However, construction would overlap with two utility conflicts identified in Table 3.6-16 and Table 3.6-17. These two utility conflicts are in relation to two underground oil pipelines owned by Union Oil that would need to be relocated. The majority of utility impacts within Fullerton would be in relation to the redesign of an underpass near the HSR system. Construction of the optional Fullerton HSR platform and station facilities would result in an additional five utility conflicts that would need to be protected in place: two storm drains, two sewer conduits, and one water conduit. Construction of the optional Fullerton HSR platform and station facilities would be dependent on managing several of the high-risk and major conflicts. Overall, construction of the optional Fullerton HSR platform and station facilities would include relocation of 17 major utility lines; no removal, extension, or realignment/abandonment of utility lines; and protection in place of 9 utility lines.

Propane, bulk fuel, and bulk chemical storage facilities may be in the industrial areas of Los Angeles County, some of which may be adjacent to railroads and highways. Sites of potential environmental concern in the RSAs are identified and discussed in Section 3.10. These potential environmental concern sites could have contamination for hazardous materials releases and may contain above- and underground bulk storage tanks or other bulk hazardous material storage on site.

The fire and rescue agencies follow standard emergency response protocols for industrial sites when responding to emergencies at high-risk facilities. The following high-risk utilities could pose fire and explosion threats in the safety and security RSAs:

- Substations in the RSAs
- Southern California Gas Company high-pressure petroleum pipelines
- Southern California Gas Company high-pressure natural gas pipelines
- High-voltage electric lines that cross or run parallel to the project section track

Tall structures also can pose a safety hazard because of their potential to topple onto HSR facilities because of accidents, severe weather, or terrorist acts. Tall structures include bridges that overarch the track and other tall structures that could topple into the right-of-way in the event of an incident. There are no tall structures within the project footprint other than communications towers and bridges (overcrossings) that overarch the track. Proposed overcrossings (bridges) and undercrossings in the project section are identified in Table 2-14 in Chapter 2.

Valley Fever

Valley fever is a fungal infection caused by inhalation of coccidioides organisms found in airborne dust after soil disturbance, such as construction excavation and grading activities. The incidence rate of Valley fever in Los Angeles County increased from 9.9 cases per 100,000 people in 2017 to 15.1 cases per 100,000 people in 2022. In Orange County the incidence rate was 6.1 cases per 100,000 people in 2017 and 9.4 cases per 100,000 people in 2022. From 2017 to 2022, the highest annual number of documented cases of Valley fever—15.7 cases per 100,000 population in Los Angeles County and 9.4 cases per 100,000 population in Orange County—occurred in 2022 (CDPH 2022, 2024).

High Winds

According to the Federal Emergency Management Agency's Wind Zones in the United States map, the RSAs would be within Zone 1, where maximum wind speeds can reach 130 mph (FEMA 2014, 2015). Generally, the most severe wind conditions in the RSAs occur in the autumn and are associated with the dry Santa Ana or "devil" winds. These winds rarely reach a velocity of more than 75 mph, and wind hazards such as tornadoes are rare and in recent history have resulted in relatively minor localized impacts. According to the *County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan* (County of Orange 2021), Santa Ana wind conditions can result in direct building damage and damage to utilities and infrastructure.

Geotechnical Hazards

As discussed in Section 3.9, the RSA is in a seismically active region and in proximity to major faults capable of producing moderate to large earthquakes. The major faults in the vicinity of the project section are listed in Table 3.9-7 and in the *Los Angeles to Anaheim Project Section Geology, Soils, And Seismicity Technical Report* (Authority 2025b).

Flood Risk

Floodplains and potential impacts from flooding, dam failure, and inundation are discussed in greater detail in Section 3.8 and Section 3.9. Figure 3.9-6 in Section 3.9 provides the locations of dams and dam inundation areas in the RSAs. The RSAs fall within the Los Angeles River Basin, San Gabriel River Basin, Santa Ana River Basin, and Anaheim Bay-Huntington Harbour (Seal Beach) watersheds.

The project section would cross the Los Angeles River, Rio Hondo, San Gabriel River, North Fork Coyote Creek, Brea Creek, Fullerton Creek, and Carbon Creek, which are Federal Emergency Management Agency–designated floodplains. Refer to Section 3.8 and the *Los Angeles to Anaheim Project Section Hydrology and Water Resources Technical Report* (Authority 2025c) for additional information about flooding risks in the project section. Table E-1 in the *Los Angeles to Anaheim Project Section Hydrology and Water Resources Technical Report* identifies the Federal Emergency Management Agency-designated floodplains in the RSAs.

Oil and Gas Wells

According to the database listing for oil and gas wells published by the California Department of Conservation's Geologic Energy Management Division, there are four oil fields and oil-producing, abandoned, buried, idle, or water flood wells of record within 0.25 mile of the centerline of the project section. These include the abandoned Union Station (Los Angeles), Bandini (Los Angeles/Commerce/Vernon area), Santa Fe Springs (Santa Fe Springs), and East Los Angeles oil fields.

According to the database listing for oil and gas wells published by the California Department of Conservation Geologic Energy Management Division online mapping application (CalGEM 2023), there are 677 wells of record within 0.25 mile of the project footprint. Well types include oil and gas, core hole, canceled, waterflood, multipurpose, water disposal, and injection. The locations of most oil-producing, abandoned, water flood, and "status not specified" oil wells within 0.25 mile of the project footprint are presented on figures in Appendix 3.10-A.

Well locations identified in the database may be within 100 to 200 feet of the actual well location, according to the Geologic Energy Management Division database (CalGEM 2023). The accuracy of the California Department of Conservation maps is typically within 100 to 200 feet of the actual plotted location. Therefore, a former oil well indicated on an adjoining property may, in fact, have been within the project section or closer to it than indicated. Prior to ground-disturbing activities, field observations and additional research would be conducted to locate wells in the RSAs.

Active and Closed Landfills

Based on review of the California Solid Waste Information System landfill database (CalRecycle 2017), no active landfills were identified within 0.25 mile of the project footprint and eight closed

landfills were identified within 0.25 mile of the project footprint. Table 3.11-12 lists closed solid waste disposal facilities.

Critical Infrastructure

Section 3.6 discusses the utilities and service providers throughout the RSA as well as the critical infrastructure associated with these utilities. These utilities provide electricity, natural gas, petroleum and fuel, communications (telephone and cable/internet), water supply, sewer/ wastewater, and solid waste collection. The utility service providers and their associated infrastructure serve the RSA on a daily operational basis, as well as in the case of an emergency.

3.11.5.3 Wildland Fires

Fire hazard zones in State Responsibility Areas are presented on Figure 3.11-6 for Los Angeles and Orange Counties, and fire hazard zones in Local Responsibility Areas are presented on Figure 3.11-7 for Los Angeles and Orange Counties. The project section would not traverse fire hazard zones (high hazard or very high hazard) in Los Angeles County or Orange County that are categorized as wildlands. There are very high fire hazard severity zones approximately 2 miles to the northwest of the project section in the city of Los Angeles (CAL FIRE 2024).

3.11.6 Environmental Consequences

3.11.6.1 Overview

This section discusses the potential safety and security impacts from construction and operations/maintenance 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 HSR station options are described in the analysis. Section 3.11.6.2, No Project Alternative, discusses potential impacts of the No Project Alternative. Section 3.11.6.3, Project Impacts, discusses potential project impacts.

HSR and other passenger trains will not exceed speeds of 90 mph in this project section. Therefore, grade separations are not required, but would be built at five existing at-grade crossings under the Shared Passenger Track Alternatives and one would be partially grade separated, with freight track remaining at grade. These grade separations have been designed to ensure the safety of pedestrians, vehicles, and HSR passengers. The Shared Passenger Track Alternatives would also maintain eight existing at-grade crossings.

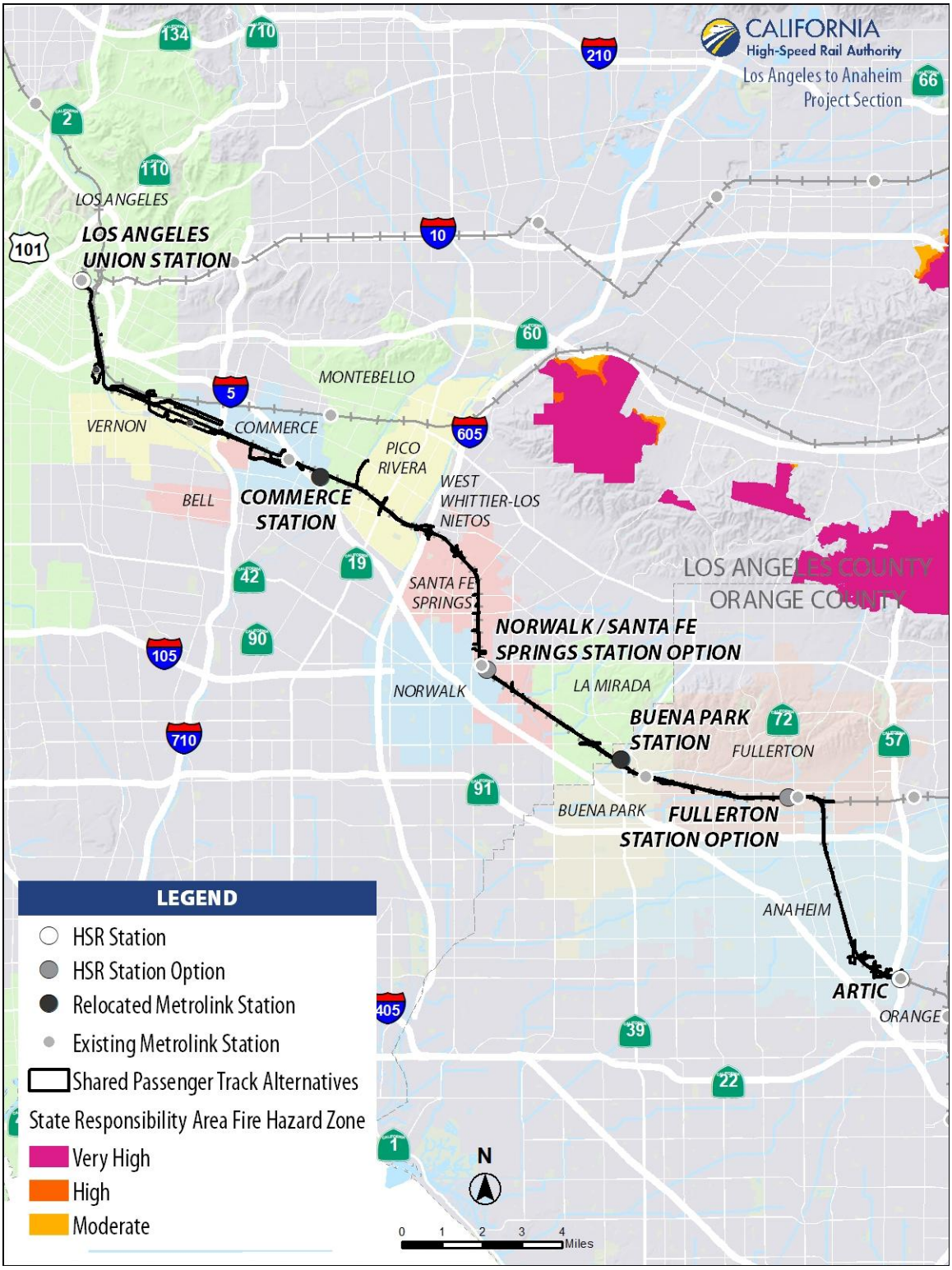
The Authority has incorporated IAMFs to address safety and security that are described in Volume 2, Appendix 2-A. These features require the contractor to prepare and implement a CSTMP that establishes procedures for the contractor's coordination with local jurisdictions to maintain emergency vehicle access during construction (**SS-IAMF#1**) and an SSMP that will be implemented prior to initiating construction (**SS-IAMF#2**). Prior to project construction, the Authority or its contractor will also conduct a hazard analysis to identify and implement measures that reduce any identified hazards (**SS-IAMF#3**). The contractor will identify and inspect all active and abandoned oil and natural gas wells prior to construction (**SS-IAMF#4**) and develop and implement an SSMP (**SS-IAMF#2**). The SSMP would lead to the development of an SSP plan, Fire and Life Safety Program, and SEPP that would be applicable to operation of the project extent and that would govern safety and security for the HSR operating system (Authority 2013b). The Authority would require the SSP plan and SEPP to be developed and implemented prior to commencement of revenue service of the HSR in accordance with the FRA regulation (49 CFR Part 270) that would require the application of an SSP plan to passenger railroad operations. The SSP will address HSR design features intended to maintain security at stations, within the trackwork right-of-way, and onboard trains.

The IAMFs differ from mitigation measures in that they are part of the project. In contrast, mitigation measures may be available to further reduce, compensate for, or offset project impacts that the analysis identifies under NEPA or concludes are significant under CEQA.

Table 3.11-12 Solid Waste Disposal Facilities within 0.25 Mile of the Project Section

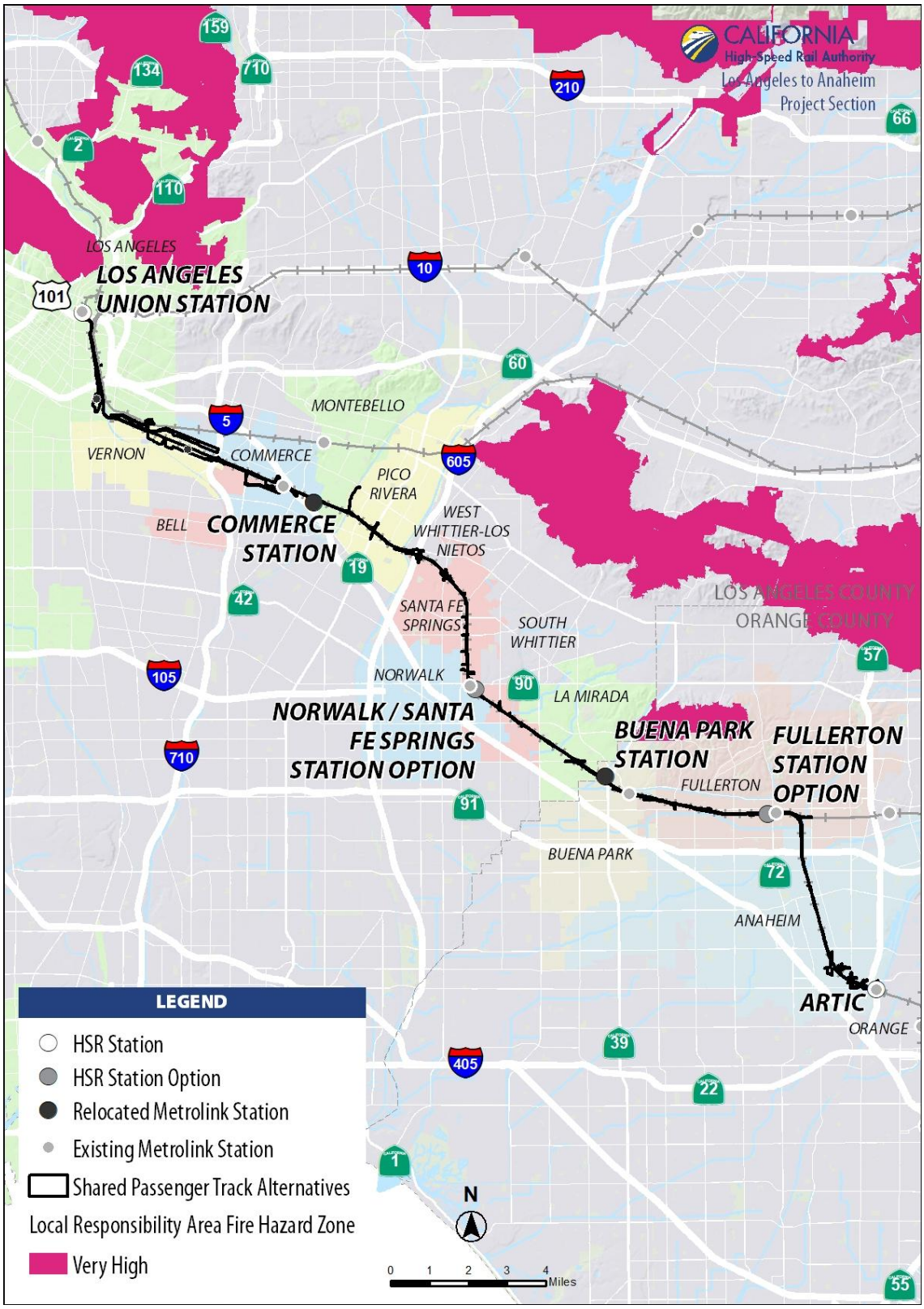
Facility	Address	City	Distance/Direction from Project Footprint
Learidas Dump	3480 Bandini Blvd	Vernon	0.20 mile south
Clifford L Bush Disposal Site (PEC 227)	3818 Bandini Blvd	Vernon	280 feet southwest
Vernon City Dump	3501–3691 Bandini Blvd	Vernon	0.20 mile south
Rivera Road 345 Disposal Site	9400 E Rivera Rd	Pico Rivera	0.06 mile northeast
Dice Road/Los Nietos Road Disposal Site	9165 Dice Rd	Santa Fe Springs	0.05 mile northeast
Kalico #1 - Neville Chemical Disposal Site	11811 Greenstone Ave	Santa Fe Springs	0.10 mile northeast
Kobra Dump (PEC 105) Kobra Junior, Silvey Transportation	11927–12027 Greenstone Ave	Santa Fe Springs	0.10 mile northeast
Kalico #2 - Neville Chemical Disposal Site	12924 E Imperial Hwy	Santa Fe Springs	0.13 mile northeast

Source: CalRecycle 2024
PEC = potential environmental concern; RSA = resource study area



Sources: CAL FIRE 2024; ESRI 2024b

Figure 3.11-6 Fire Hazard Zones in State Responsibility Areas, Los Angeles County and Orange County



Sources: CAL FIRE 2024; ESRI 2024b

Figure 3.11-7 Fire Hazard Zones in Local Responsibility Areas, Los Angeles County and Orange County

The HSR system would provide a safe and reliable means of intercity travel using contemporary safety, signaling, and PTC systems. The HSR system would reduce growth in air and surface traffic. Reduction in traffic congestion as a result of the HSR system would decrease the occurrence of air, vehicular, pedestrian, and cycling accidents. Design of the system also would prevent conflicts with vehicles, pedestrians, and bicyclists. Overall, the HSR system would provide a safety benefit for travelers in Los Angeles and Orange Counties.

In addition, and as part of the design of the HSR system, the Authority's SSMP (Authority 2023) establishes the Authority's commitment and philosophy to achieve the highest practical level of safety and security throughout the California HSR System's life cycle. Through the application of risk-based system safety and security programs that identify, assess, avoid, and mitigate safety hazards and security vulnerabilities of the California HSR System, the plan minimizes the risk of injury and property damage and maximizes the safety and security of HSR passengers, employees, and the public. The SSMP for the project (as prescribed by **SS-IAMF#2**) will be based on the programmatic SSMP (Authority 2023).

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

Construction Impacts

- Impact SS-1: Increased Response Times for Fire, Rescue, and Emergency Services from Temporary Road Closures
- Impact SS-2: Increased Response Times for Fire, Rescue, and Emergency Services from Permanent Road Closures and Permanent Roadway Changes
- Impact SS-3: Temporary Exposure to Construction Site Hazards
- Impact SS-4: Temporary Exposure to Criminal Activity at Construction Sites
- Impact SS-5: Accidents Associated with Construction-Related Detours and Traffic Hazards
- Impact SS-6: Accidents Associated with Permanent Detours and Traffic Hazards
- Impact SS-7: Temporary Exposure to Landfill Hazards
- Impact SS-8: Temporary Exposure to Oil and Gas Well Hazards
- Impact SS-9: Temporary Exposure to Valley Fever
- Impact SS-10: Interference with Aviation Safety

Operational Impacts

- Impact SS-11: Permanent Interference with Emergency Response Access from Operational Activities
- Impact SS-12: Permanent Interference with Emergency Response Times from Operational Activities
- Impact SS-13: Permanent Exposure to Rail-Related Hazards
- Impact SS-14: Permanent Exposure to High-Risk Facilities
- Impact SS-15: Permanent Exposure to Oil and Gas Well Hazards
- Impact SS-16: Potential for Criminal and Terrorist Activity
- Impact SS-17: Need for Expansion of Existing Fire, Rescue, and Emergency Services Facilities
- Impact SS-18: Permanent Safety Hazards to Schools
- Impact SS-19: Wildfire Hazards

3.11.6.2 No Project Alternative

The No Project Alternative is the scenario where the Shared Passenger Track Alternatives are not built. Under the No Project Alternative, recent development trends in the project section are anticipated to continue. Employment in the RSAs would continue to grow through 2040, but population would decrease slightly in the RSAs through 2040, primarily in Los Angeles County. Further development of Los Angeles and Orange Counties to accommodate the population changes and employment increase would continue under the No Project Alternative and result in associated direct and indirect impacts on safety and security. Such planned and other reasonably foreseeable projects anticipated to be built by 2040 include residential, commercial, industrial, recreational, and transportation projects.

Average law enforcement and fire department response times, as well as each agency's response time goals, are provided in Section 3.11.5.2, Community Safety and Security; these response times are not always consistent with applicable goals and objectives contained in regional and local planning documents.

A comparison of violent crime and property crime rates in the state and Los Angeles and Orange Counties for 2014 and 2019 is provided in Table 3.11-6 and Table 3.11-7. The violent crime rates and property crime rates in Los Angeles County were lower than the state average in 2014 and higher than the state average in 2019. The violent crime rate and property crime rate in Orange County were lower than the state average in 2014 and in 2019.

A full list of anticipated future projects is provided in Volume 2, Appendix 3.19-A, Cumulative Plans and Nontransportation Projects List, and Appendix 3.19-B, Cumulative Transportation Projects List. The No Project Alternative would lead to inevitable congestion on regional roadways, despite planned improvements, because anticipated employment growth would outpace roadway expansion. Table 3.2-15 in Section 3.2 lists the future conditions projects for the No Project Alternative that are listed in the fiscally constrained Southern California Association of Governments *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, including amendments related to the 2014 Federal Transportation Improvement Program and 2024 Statewide Transportation Improvement Program. Table 2-8 in Chapter 2 provides a list of planned highway projects. Section 2.6.1 in Chapter 2 provides a list of planned passenger rail and bus improvements in Los Angeles and Orange Counties.

The residential population fluctuations and commercial growth that would occur throughout the counties is anticipated to affect safety and security resources. It is anticipated that increased vehicular traffic volumes from employment growth would correspond with an increase in traffic accidents in which injuries and fatalities could occur. The currently planned roadway capacity expansions would improve operations but would not completely alleviate congestion that would result from anticipated growth. These programmed roadway projects would incorporate design features that would reduce, but would not completely avoid, the potential for traffic accidents. For these reasons, existing vehicle accident rates would continue at current rates into the future for the No Project Alternative. Transportation improvements would also incorporate design features that reduce the potential for traffic accidents, and service level goals for emergency responders would have to be adjusted to meet the needs of the growing population on a regional level.

Under the No Project Alternative, the demand for law enforcement, fire, and emergency services would fluctuate to coincide with the anticipated increases and decreases in population, and law enforcement, fire, and emergency services needs of planned industrial, residential, and commercial developments. Counties and cities have financial mechanisms in place to meet service level goals for emergency responders based on the projected population shifts in Los Angeles and Orange Counties, which would reduce the No Project Alternative's impacts on demand for services.

In addition, the demand for newly planned development and transportation projects would continue to increase from increasing employment growth; demand for services would increase concomitant with expansion of development and expansion of the transportation system. Planned development and transportation projects that would be conducted as part of the No Project

Alternative would likely include various forms of mitigation to address impacts of development and transportation projects on demand for law enforcement, fire, and emergency services that would reduce the No Project Alternative's impacts on safety and security.

Expansion of development and the transportation network under the No Project Alternative could result in increased incidence of crime. However, crime rates would also depend on a variety of other factors.

Under the No Project Alternative, the anticipated shifts in population and employment growth would result in an increase in the potential exposure of individuals to risks related to seismic events. The No Project Alternative would not result in an increase in risks related to high-risk facilities near HSR facilities because the project would not be built.

3.11.6.3 Project Impacts

Construction of the Shared Passenger Track Alternatives would involve demolition of existing structures, clearing and grubbing; reduction of permeable surface area; handling, storing, hauling, excavating, and placing fill; possible pile driving; and construction of aerial structures, bridges, road modifications, utility upgrades and relocations, HSR electrical systems, rail yards, railbeds, communication towers, and ancillary facilities to implement the FRA PTC requirements. Project operation would include operation of trains, an LMF facility and stations and inspection and maintenance along the track and railroad right-of-way, as well as on the structures, fencing, power system, train control, electric interconnection facilities, and communications. Construction and operations and maintenance for the Shared Passenger Track Alternatives are detailed in Chapter 2.

Construction Impacts

Impact SS-1: Increased Response Times for Fire, Rescue, and Emergency Services from Temporary Road Closures

Shared Passenger Track Alternative A

Construction activities associated with Shared Passenger Track Alternative A would require temporary construction easements, which may require the temporary closure of parking areas and roadway travel lanes, construction adjacent to major roadways, and changes in traffic routes along closures. Temporary road closures could affect roadways in Los Angeles County and Orange County where there is moderate to high population density, potentially increasing law enforcement and emergency vehicle response times. Temporary construction roadway closures are identified in Table 3.2-19 in Section 3.2.

Temporary impacts from project construction are also described in the *Los Angeles to Anaheim Project Section Transportation Technical Report*, Section 6.7.1.2, Temporary Conditions (Existing Year 2015 Plus Construction) (Authority 2025a).

Project construction would entail improvements to existing overcrossing and undercrossing structures on the corridor, as well as construction of new aerial structures. Construction would also include relocating or modifying passenger rail stations and the relocation/protection of utilities. Many of these activities would require short- or long-term roadway closures. Depending on closure duration and timing, delays may exceed 30 minutes per vehicle. However, as described in Table 3.2-19, detours would be provided onto parallel routes. Construction sequencing would affect the amount of delay associated with each closure, because overlapping detour routes could compound delays. In some cases, delays on parallel routes could affect adjacent intersections or roadways that are upstream of the construction, which could further compound delay of vehicles, transit, pedestrians, and bicycles. These impacts would be considered indirect and temporary for intersections for the duration of construction.

Consequently, in some locations, law enforcement, fire, and emergency services would experience increased response times. A CSTMP (**SS-IAMF#1**) would incorporate emergency vehicle access procedures intended to avoid impacts on emergency response times. This would be achieved through coordination with local jurisdictions to maintain emergency vehicle access, and by establishing detour provisions for temporary road closures and routes for construction

traffic so that emergency vehicle access for police and fire protection services would be maintained at all times. If needed, law enforcement, fire, and emergency service operators could identify temporary, alternate parallel routes to provide expected levels of emergency response travel times.

During long-term temporary road closures, law enforcement and emergency vehicles would be detoured to adjacent crossings, which could result in increased response times. Alternate emergency routes would be defined by each jurisdiction's police and fire department stations as well as with area hospitals. These efforts would be intended to avoid or minimize changes to response times. Measures could include defined detour routing in combination with routes with signalized intersection preemptions.

Emergency vehicles may also encounter delays while accessing construction sites, particularly sites where roadway grade is being raised or lowered on roadways crossing the project alignment. Detour routes for roads in the project section affected by temporary road closures are described in the *Los Angeles to Anaheim Project Section Transportation Technical Report*, Section 6.7.1.2, Temporary Conditions (Existing Year 2015 Plus Construction) (Authority 2025a). Detours would be configured to maintain emergency vehicle access and reduce emergency response time delays in accordance with the CSTMP developed under **SS-IAMF#1**.

Shared Passenger Track Alternative A would include several IAMFs as design features to avoid or reduce temporary impacts on emergency response during construction. These include **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#6**, and **TR-IAMF#8**. Prior to construction the Authority will develop and apply a CSTMP (**SS-IAMF#1**). The CSTMP will describe the Authority's coordination efforts with local jurisdictions for maintaining emergency vehicle access to address the impacts on emergency service response time. The CSTMP will also specify the Authority's procedures for temporary road closures, including emergency vehicle access. The contractor will submit monthly reports to the Authority documenting application of the CSTMP and construction transportation plan for compliance monitoring. **TR-IAMF#6** requires the Authority to schedule construction materials deliveries to occur only between 7:00 a.m. and 9:00 a.m. and 4:00 p.m. and 6:00 p.m. on weekdays and to limit the number of construction employees arriving to or departing the site between 7:00 a.m. and 8:30 a.m. and 4:30 p.m. and 6:00 p.m. to minimize traffic impacts on roadways. **TR-IAMF#8** requires the Authority to provide a mechanism to prevent roadway construction activities from reducing roadway capacity during major athletic or other special events that substantially (10 percent or more) increase traffic on roadways affect by project construction.

TR-IAMF#2 will reduce impacts on transportation by requiring the Authority to prepare a detailed construction transportation plan for minimizing the impact of construction and construction traffic on adjoining and nearby roadways. The construction transportation plan will address the activities to be executed in each construction phase, with the requirement of maintaining traffic flow during peak travel periods. Such activities include, but are not limited to, the routing and scheduling of materials deliveries, materials staging and storage areas, construction employee arrival and departure schedules, employee parking locations, and temporary road closures. Under **SS-IAMF#1** and **TR-IAMF#2**, detours will be configured to maintain emergency vehicle access and reduce emergency response time delays in accordance with the CSTMP, thereby reducing temporary impacts related to delays. The plan will provide for 24-hour access by emergency vehicles during construction. The plan also will provide for temporary traffic controls pursuant to the *California Manual on Uniform Traffic Control Devices* (Caltrans 2020) and will include elements for minimizing impacts on emergency access, mainly through establishing detour provisions for temporary road closures and identified routes for construction traffic as part of a CSTMP per **SS-IAMF#1**. These procedures would avoid impacts. Impacts from temporary construction easements and temporary road closures on emergency service response times would be reduced through incorporation of these IAMFs.

Shared Passenger Track Alternative A would retain eight existing at-grade crossings in Anaheim: Orangethorpe Avenue, La Palma Avenue, Sycamore Street, Broadway, Santa Ana Street, South Street, Vermont Avenue, and Ball Road. Limited modifications to existing at-grade crossings

within the project footprint are described in Chapter 2, Section 2.6.3.6, Grade Separations. Construction of the overhead contact system through the at-grade crossings in Anaheim would likely not require detouring of traffic and would be limited to short-term partial lane closures.

Shared Passenger Track Alternative B

With the LMF at 15th Street, increased response times for fire, rescue, and emergency services from temporary road closures would be similar to those described for Shared Passenger Track Alternative A. Shared Passenger Track Alternative B would have an additional roadway modification at the 15th Street LMF site, where a small portion of 16th Street would be closed permanently. All other roadway closures and detours described in Table 3.2-19 in Section 3.2 would apply to Shared Passenger Track Alternative B. The same IAMFs listed for Shared Passenger Track Alternative A, including **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#6**, and **TR-IAMF#8**, would apply to Shared Passenger Track Alternative B.

TR-IAMF#2 will reduce impacts on transportation by requiring the Authority to prepare a detailed construction transportation plan for minimizing the impact of construction and construction traffic on adjoining and nearby roadways. Under **SS-IAMF#1** and **TR-IAMF#2**, detours will be configured to maintain emergency vehicle access and reduce emergency response time delays in accordance with the CSTMP. Incorporation of IAMFs will minimize impacts related to response times from construction of the 15th Street LMF.

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 within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, and would not require different closures or detours for the affected roadways in the station vicinity (Florence Avenue, Lakeland Road, Imperial Highway). The same IAMFs listed for the Shared Passenger Track Alternatives will apply to the Norwalk/Santa Fe Springs HSR Station Option. **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#6**, and **TR-IAMF#8** will apply to all project construction affecting roadways, including roadways temporarily affected by station construction and relocation.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within a larger area than would be modified as part of the Shared Passenger Track Alternatives, but would not require different closures or detours for the affected roadways in the station vicinity (Commonwealth Avenue, Euclid Street, Highland Avenue, Walnut Avenue, Harbor Boulevard, Lemon Street). The same IAMFs listed for the Shared Passenger Track Alternatives will apply to the Fullerton HSR Station Option. **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#6**, and **TR-IAMF#8** will apply to all project construction affecting roadways, including roadways affected by station construction and relocation.

CEQA Conclusion

Construction would result in temporary, short-term impacts on traffic flow, circulation, and access, but these impacts are expected to be intermittent and geographically dispersed based on phasing and segment-specific activities.

The impact under CEQA from temporary interference with emergency response times during project construction would be less than significant. **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#6**, and **TR-IAMF#8** are included as a part of the project to effectively minimize impacts from construction on emergency response times during construction. Detours will be configured and coordinated with local jurisdictions to maintain emergency vehicle access and provide detour communications including appropriate signage to reduce emergency response time delays in accordance with the CSTMP under **SS-IAMF#1**, and the construction transportation plan under **TR-IAMF#2** would minimize the impact of construction and construction traffic on adjoining and nearby roadways. To further minimize impacts of construction on emergency response times, **TR-IAMF#6** will limit

construction materials deliveries to certain timeframes and **TR-IAMF#8** will reduce roadway capacity during major sports events or special events. The impact from temporary interference with emergency response times during construction would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-2: Increased Response Times for Fire, Rescue, and Emergency Services from Permanent Road Closures and Permanent Roadway Changes

Shared Passenger Track Alternative A

Project construction would permanently close some roads, as well as introduce new grade separations and other permanent roadway changes. Table 2-14 lists all permanent roadway modifications.

Five existing at-grade crossings would become new grade-separated crossings (Pioneer Boulevard, Norwalk Boulevard, Los Nietos Road, Cerritos Avenue, and State College Boulevard). Grade-separated crossings would reduce emergency vehicle travel times at intersections by eliminating existing delays resulting from at-grade crossing closures and would improve emergency response times.

In addition, several existing grade separations would be modified; some roadways would be realigned. Modifications to existing grade separations would consist of changes in the vertical profile or addition of new piers and abutments in the roadway. Roadway realignments would consist of shifting segments of some roadways to avoid HSR project elements. These permanent modifications would maintain the existing roadway network and lane configurations, and would not affect emergency response times.

Some roads near Hobart Yard and a portion of a roadway near Commerce Yard would be permanently closed, because of the modifications to the yards. These affected roads are minor streets that currently provide access to the BNSF yards and adjacent businesses, but, after construction, these roads and parcels would become part of the modified yard areas; therefore, emergency response times would not be affected by these closures.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts on emergency response times from permanent roadway modifications would be the same as those described for Shared Passenger Track Alternative A.

Project construction with the 15th Street LMF would result in one additional permanent road closure. A segment of 16th Street, which is an existing cul-de-sac that serves the properties that would be acquired for construction of the 15th Street LMF, would be permanently closed for construction of the 15th Street LMF; emergency response times would not be affected because the properties would be within the boundaries of the LMF.

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 within the station area, because no additional roadways would be permanently modified from construction of the HSR platform, facilities, and parking.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area. No additional roadways would be permanently modified from construction of the HSR platform, facilities, and parking.

CEQA Conclusion

The impact under CEQA from permanent interference with emergency response times from permanent roadway modifications would be less than significant. Several roadways would be permanently modified or closed but, overall, the existing roadway network would be maintained. The project would introduce five new full grade separations, which would improve travel times at

those intersections. Therefore, emergency response times after permanent modifications to roadways would not be affected. The impact from permanent interference with emergency response times from permanent roadway modifications would be less than significant under CEQA and therefore do not require mitigation.

Impact SS-3: Temporary Exposure to Construction Site Hazards

Shared Passenger Track Alternative A

Construction activities associated with the project would require excavation, construction of elevated and below-grade guideways, and installation of electrical systems. These construction sites would involve heavy equipment on site, earthwork, and other major construction activities, including the transport of overweight and oversized materials (construction activities are described in Chapter 2, Section 2.10.5, Major Construction Activities).

Construction would increase the potential for exposure of construction workers to construction equipment and activity hazards that could result in workplace accidents, potentially resulting in accidental injuries to and deaths of construction workers and also potentially the public in the event a workplace accident such as a fire or explosion results in off-site consequences. Construction activities could also result in exposure of construction workers to hazardous chemicals, fall hazards, and electrical hazards. Throughout project construction, workers would be exposed to hazards associated with construction site equipment and activities. Refer to Section 3.10 for an analysis of the health and safety risks to the public and workers during construction, including exposure to hazardous wastes and materials generated during construction.

Construction would occur within known contaminated sites such as the Exide Technologies Plant in Vernon and the Orange County North Basin site in Fullerton, Anaheim, and Placentia. Although cleanup is under way for these sites, remediation completion is currently unknown.

Construction could potentially release hazardous materials and wastes on or near potential environmental concern sites. However, as discussed in Section 3.10, Impact HMW-4, Shared Passenger Track Alternative A will incorporate **HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3** during construction, which will minimize impacts related to releases of hazardous materials and wastes on or near sites of potential environmental concern.

As described in Section 3.10, Impact HMW-4, because of the extensive nature of potential impacts associated with the two Superfund sites (Orange County North Basin site and the Exide site in Vernon) 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. The two Superfund sites are being monitored and remediated under the purview of the U.S. Environmental Protection Agency, California Department of Toxic Substances Control, 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**, **Coordination of HSR Design and Construction with Remediation of Exide Site and Orange County North Basin Superfund Site**, ongoing U.S. Environmental Protection Agency remedial actions at a proposed or listed Superfund site will occur, and additional coordination by the Authority with the responsible parties and applicable oversight agencies (with the purpose of obtaining all necessary approvals) may be required. Approvals would be contingent on the oversight agency's requirements being met for the development of the site. Also, as part of **HMW-MM#2**, construction activities conducted in this area will require consideration of known or potentially contaminated media that may be disturbed during construction. 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.

Additionally, worksite safety in California, including construction worksite safety, is regulated by provisions of Title 8 of the California Code of Regulations and overseen by the California Occupational Safety and Health Administration. Title 8 requires compliance with standard

procedures to prevent construction workplace accidents and requires a written workplace injury and illness prevention program to be in place (Cal. Code Regs., tit. 8, Section 1502 et seq.; Cal-OSHA 2019a).

Similarly, construction would be in compliance with requirements for fire safety measures per California Public Resources Code Title 14 and Title 19, as well as other applicable fire code regulations.

The project also includes **SS-IAMF#2**, which requires the contractor to provide the Authority with a technical memorandum documenting how the requirements, plans, programs, and guidelines were considered in design, construction, and eventual operation to protect the safety and security of construction workers and how they will protect users of the HSR. The contractor will also be responsible for implementing all construction-related safety and security plans and the Authority will be responsible for implementing all safety and security plans related to HSR operation. The technical memorandum will also document how safety and security measures and construction safety and health plans establish minimum safety and health guidelines for contractors of, and visitors to, the construction site. Development of fire and life safety program and security programs will be coordinated with local emergency response organizations to provide them with an understanding of the rail system. The Authority will establish fire/life safety committees throughout the project section. The Authority will comply with and require a written workplace injury and illness prevention program to be in place (Cal. Code Regs., tit. 8, Section 1502 et seq.; Cal-OSHA 2019a, 2019b), thereby reducing the potential for workplace accidents at construction sites. The Authority will be required to develop and apply site-specific measures that address regulatory requirements to protect human health and property at construction sites. These are sites where workers trained in safety and security measures will be involved in construction activities.

The design and construction guidelines would also include specific provisions for electrical safety. The contactor would be required to identify major public and private utility facilities, including electrical utilities, situated in the project's area of influence. Overhead utilities that cross the tracks at local street overpasses would be required to be contained within the overpass structure, encased in a steel casing sleeve, or relocated underground. Fire and life safety infrastructure elements associated with traction power facilities and the overhead contact system, including clearance and barrier requirements, are identified in technical memoranda design standards (Authority 2012, 2013a). The electric utility would also comply with CPUC General Orders 95 and 128, which provide guidelines for the design, construction, and maintenance of overhead utility lines and underground electrical supply and communications, respectively, and address safety risks to workers and the public.

Collectively, the aforementioned plans, standards, and project features would reduce impacts on the safety and security of construction site workers and visitors that could result from exposure to hazards or workplace accidents.

Construction site hazards for construction of the LMF at the 26th Street location are similar to those of other portions of Shared Passenger Alternative A and the same IAMFs would apply.

Some project construction activities would occur adjacent to the Fullerton Municipal Airport. Construction equipment such as cranes and drill rigs may temporarily affect the National Airspace System and Fullerton Municipal Airport operations. As a result, the project would be subject to FAA regulations for flagging and lighting as well as the filing of a notice of proposed construction or alteration (FAA form 7460-1) with FAA. Under **SS-IAMF#5**, the Authority will strive for adherence to FAA requirements, including conformance to Federal Aviation Regulation Part 77 notification requirements.

Shared Passenger Track Alternative B

With the LMF at 15th Street, temporary exposure of workers to construction site hazards during construction would be similar to that described for Shared Passenger Track Alternative A with the exception of potential exposure to construction site hazards associated with the Exide site. The alternatives primarily differ in the location of the LMF; as described in Section 3.10, the 26th

Street LMF (that traverses the entire Exide site) would not be included under Shared Passenger Track Alternative B and therefore potential exposure to construction site hazards associated with the Exide Technologies Plant site would be reduced for Shared Passenger Track Alternative B. Otherwise, impacts in terms of exposure to temporary construction hazards during project construction are expected to be similar for both alternatives.

The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2**, **SS-IAMF#5**, **HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3**) apply to Shared Passenger Track Alternative B. The same mitigation measure listed for Shared Passenger Track Alternative A (**HMW-MM#2**) applies to 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, exposure to temporary construction site hazards would be the same as that described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, and would require the same types of construction activities. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2**, **SS-IAMF#5**, **HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3**) apply to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be greater than those described for the Shared Passenger Track Alternatives. Construction of the HSR platform, facilities, and parking would occur within a larger area than would be modified under the Shared Passenger Track Alternatives within the station area, and would require more extensive excavation. Overall, the types of construction activities would be the same as those associated with the Shared Passenger Track Alternatives, but there would be a greater potential to encounter hazardous wastes from potential environmental concern sites. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2**, **SS-IAMF#5**, **HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3**) apply to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA from temporary exposure to site hazards during project construction would be less than significant for most construction sites including most potential environmental concern 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). **SS-IAMF#2** and **SS-IAMF#5** are included as a part of the project during construction to effectively minimize impacts from exposure to construction site hazards. California regulations require compliance with standard procedures to prevent construction workplace accidents and require a written workplace injury and illness prevention program to be in place. Construction activities are also subject to standards included in California High-Speed Rail Standard Safety Procedures. In addition to legal requirements, potential exposure to workplace hazards will be managed by the Authority through the construction safety and health plans applied to each phase of project construction (**SS-IAMF#2**). The Authority will document in a technical memorandum how plans, programs, and guidelines were considered and incorporated in design and construction and how they would comply with standard procedures to reduce the potential for construction worksite accidents. **SS-IAMF#5** will ensure FAA requirements for equipment temporarily affecting the Fullerton Municipal Airport are met, including for construction of optional Fullerton HSR Station. Compliance with California regulatory requirements and HSR standards and the inclusion of **SS-IAMF#2**, **SS-IAMF#5**, **HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3** would reduce or avoid exposure to construction site hazards.

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 would potentially cause a significant hazard to the public or the environment from a release of hazardous materials. The safety and security impact under CEQA related to construction of the project associated with these two specific sites could potentially result in a safety hazard for people in the RSA as a result of construction activities and therefore would be potentially significant and 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 (if built), and engagement with public interested parties at specific design milestones, the potential impact would be minimized; however, in an abundance of caution owing to the extent of contamination and other potential safety risks to the public as discussed in Section 3.10, 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 SS-4: Temporary Exposure to Criminal Activity at Construction Sites

Shared Passenger Track Alternative A

Criminal activity at and around HSR construction sites could include theft of equipment and materials, or vandalism after work hours. Such theft would not be expected to be substantially different from what occurs at other large construction sites. The SSMP that will be implemented by the contractor before construction starts (**SS-IAMF#2**) will include security lighting, fencing, and monitoring measures to protect the security of construction workers, equipment, and the site. Security lighting will be focused on the site to allow for better monitoring and to deter crime. Nonpublic areas of HSR facilities and stations during construction would be accessible only to authorized persons permitted access to the construction site, deterring and increasing the difficulty for unauthorized persons to enter nonpublic areas. These measures would minimize temporary security impacts associated with construction and would not result in additional demands on emergency services.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A for criminal activity. The difference in the location of the LMF would not lead to heightened exposure to potential criminal activity. The SSMP will also be implemented by the contractor prior to commencement of construction (**SS-IAMF#2**) to provide security to construction sites and protect the security of construction workers and equipment.

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 within the station area. Construction of the HSR platform, facilities, and parking would not lead to heightened exposure to criminal activity. The SSMP will also be implemented by the contractor prior to commencement of construction (**SS-IAMF#2**) to provide security to construction sites and protect the security of construction workers and equipment.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts of construction-related criminal activity would be the same as those described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would not lead to heightened exposure to criminal activity. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA from temporary exposure to criminal activity during project construction would be less than significant. The risk of criminal activity on construction sites would be

minimized by storing equipment and materials in secured areas and using security personnel and security lighting to monitor equipment after work hours as part of the HSR system. The SSMP implemented by the contractor prior to commencing construction (**SS-IAMF#2**) will include security lighting, fencing, and monitoring measures to provide security to construction sites and protect the security of construction workers and equipment. These security measures would minimize the potential for theft and vandalism. Therefore, criminal activity at project construction sites would not be a safety hazard for people residing or working in the RSA. This impact would be less than significant under CEQA and therefore does not require any mitigation.

Impact SS–5: Accidents Associated with Construction-Related Detours and Traffic Hazards

Shared Passenger Track Alternative A

As mentioned under Impact SS-1, project construction activities would require temporary or permanent closure of some roads, in turn requiring detours. (Refer to Chapter 2 for more details regarding the road design features.) The existing roadway system in the safety and security RSAs experiences high volumes of motor vehicle traffic and has many sidewalks and bicycle paths for pedestrian or bicyclist use. The operation of construction vehicles during these temporary road closures and construction periods adds an increased potential for traffic accidents. Furthermore, during construction, these road closures and detours could distract automobile drivers, pedestrians, or bicyclists traveling in the area. Distraction or unfamiliarity with the detour or new route created because of these temporary road closures could affect automobile, bicyclist, or pedestrian behaviors and increase the potential for traffic accidents. Refer to Impact SS-6 below for a discussion of the potential for increased accidents caused by permanent road closures.

TR-IAMF#2 will reduce transportation impacts by requiring the Authority to prepare a detailed construction transportation plan. This plan will minimize the impact of construction and construction traffic on adjoining and nearby roadways. As part of project design, the Authority will also develop and apply a CSTMP (**SS-IAMF#1**), which will specify the Authority's procedures for temporary road closures including access to residences and businesses during construction, lane closures, signage and flag persons, temporary detour provisions, alternative bus and delivery routes, emergency vehicle access, and alternative access locations. Therefore, through effective safety plans, design standards, and project features, the potential for vehicular, pedestrian, and bicycle traffic accidents that may occur from project construction would be reduced.

Actions that may affect pedestrians, bicyclists, or transit passengers during the construction period include sidewalk closures, crosswalk closures, or pedestrian rerouting at intersections; bike lane closures or narrowing; closure or narrowing of streets that are designated bike routes; closure or narrowing of streets that are designated transit routes; bus stop closures; and bridge closures related to construction. As part of project design, the Authority will apply IAMFs to maintain pedestrian access (**TR-IAMF#4**), bicycle access (**TR-IAMF#5**), and transit access (**TR-IAMF#11**) during the construction period. These IAMFs require the Authority to prepare specific construction management plans to address maintenance of pedestrian access, bicycle access, and transit access during the construction period. These IAMFs will reduce or avoid safety impacts of construction traffic hazards on pedestrians, bicyclists, and transit passengers.

Temporary road closures for project construction including the 26th Street LMF are provided in Table 3.2-19 and are also discussed under Impact SS-1.

Shared Passenger Track Alternative B

Construction-related traffic detours related to temporary road closures under Shared Passenger Track Alternative B would be the same as those of Shared Passenger Track Alternative A. The location of the 15th Street LMF does not require any additional or different temporary road closures in comparison to Shared Passenger Track Alternative A. As such, the impacts of temporary road closures are expected to be the same for both alternatives.

IAMFs listed for Shared Passenger Track Alternative A would apply to Shared Passenger Track Alternative B.

TR-IAMF#2 will reduce impacts on transportation by requiring the Authority to prepare a detailed construction transportation plan for minimizing the impact of construction and construction traffic on adjoining and nearby roadways. Under **SS-IAMF#1** and **TR-IAMF#2**, detours will be configured to maintain vehicle access, thereby reducing temporary impacts related to construction detours. Incorporation of **SS-IAMF#1**, **TR-IAMF#4**, **TR-IAMF#5**, and **TR-IAMF#11** will minimize impacts related to temporary roadway modifications and detours from construction of 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 described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, and would not require additional or different closures of or detours for the affected roadways in the station vicinity (Florence Avenue, Lakeland Road, Imperial Highway). The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#4**, **TR-IAMF#5**, and **TR-IAMF#11**) related to construction safety and maintaining access also apply to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within a larger area than would be modified as part of the Shared Passenger Track Alternatives, but the additional area of disturbance would not require different or additional closures of or detours for the affected roadways in the station vicinity (Commonwealth Avenue, Euclid Street, Highland Avenue, Walnut Avenue, Harbor Boulevard, Lemon Street). The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#4**, **TR-IAMF#5**, and **TR-IAMF#11**) related to construction safety and maintaining access also apply to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA related to accidents associated with construction-related detours and traffic hazards during project construction would be less than significant. **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#4**, **TR-IAMF#5**, and **TR-IAMF#11** are included as a part of the project during construction to effectively minimize impacts from exposure to temporary safety hazards associated with traffic. These IAMFs will maintain pedestrian (**TR-IAMF#4**), bicycle (**TR-IAMF#5**), and transit (**TR-IAMF#11**) access during the construction period and require development and application of a CSTMP (**SS-IAMF#1**). These IAMFs will reduce or avoid impacts on pedestrians, bicycles, and vehicle traffic. The impact from temporary road closures and detours would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-6: Accidents Associated with Permanent Detours and Traffic Hazards

Shared Passenger Track Alternative A

As mentioned under Impact SS-2, permanent changes that occur during the construction period such as permanent road closures, permanent grade-crossing separations, and permanent road realignments are considered construction impacts, not operational impacts. The rationale is that once the permanent changes are made during the construction period, they remain permanent changes (and could therefore result in permanent traffic hazard impacts) regardless of how the HSR is operated.

As mentioned under Impact SS-2, permanent roadway modifications would include new grade separations, modifications to existing grade separations, roadway realignments, and roadway closures. The five new grade separations would eliminate traffic hazards associated with the at-grade rail crossings and provide a beneficial impact for motorists, pedestrians, and bicyclists. Additionally, Lakeland Road would be partially grade separated, with HSR and passenger rail crossing over the roadway on an elevated structure; although the existing at-grade freight

crossing would remain, there would be a safety improvement by separating a large volume of passenger trains from the roadway. Refer to Chapter 2 and Section 3.2 for the analysis of safety improvements and impacts that could result from grade separations of the project and their potential beneficial impacts on vehicle, pedestrian, and bicycle traffic. All other permanent roadway modifications, such as changes to existing grade separations or realignments, would maintain the existing roadway network as it currently exists, and any permanent modifications would be designed to comply with all applicable design standards so that no traffic hazards would be introduced.

TR-IAMF#12 requires the Authority to provide a technical memorandum describing how pedestrian and bicycle accessibility will be provided and supported and how safety will be maintained across the HSR corridor, to and from stations, and on station property. The roadway improvements under the project will comply with the *Highway Design Manual* (Caltrans 2020) design standards for pedestrian and bicycle safety (Volume 2, Appendix 2-B). Therefore, through effective design features, traffic hazard exposure impacts on motorists, pedestrians, and bicyclists resulting from permanent road closures and permanent road modifications would be reduced.

Shared Passenger Track Alternative B

With the LMF at 15th Street, permanent detours associated with permanent road closures and permanent road modifications would be similar to those described for Shared Passenger Track Alternative A; however, Shared Passenger Track Alternative B would require an additional road closure. A segment of 16th Street, which is an existing cul-de-sac that serves the properties planned for acquisition for construction of the 15th Street LMF, would be permanently closed. Closure of the segment of 16th Street would not result in permanent detours, however, because the properties would be within the boundaries of the LMF.

The same IAMFs listed for Shared Passenger Track Alternative A (**TR-IAMF#12**) apply to Shared Passenger Track Alternative B.

High-Speed Rail Station Options

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

With inclusion of **TR-IAMF#12** at the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area, because no additional or different roadways would be permanently modified from construction of the HSR platform, facilities, and parking.

High-Speed Rail Station Option: Fullerton

With inclusion of **TR-IAMF#12** at the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area, because no additional or different roadways would be permanently modified from construction of the HSR platform, facilities, and parking.

CEQA Conclusion

The impact under CEQA related to accidents associated with permanent detours and traffic hazards from implementation of project roadway improvements would be less than significant. **TR-IAMF#12** is included as a part of the project during construction to effectively minimize impacts of traffic hazards. The impact from permanent traffic detours would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-7: Temporary Exposure to Landfill Hazards

Shared Passenger Track Alternative A

Landfills (both active and closed) can be a potential source of hazardous gases such as methane and a safety hazard. There are no active landfills within 0.25 mile of the project alignment, and there are eight closed landfills within 0.25 mile of the project. The eight closed solid waste disposal facilities within 0.25 mile (1,320 feet) of the project are listed in Table 3.11-12. Implementing **HMW-IAMF#2** will require the contractor to verify to the Authority through preparation of a technical memorandum that methane protection measures, including gas

detection systems and personnel training, will be implemented for all work within 1,000 feet of a landfill, reducing impacts resulting from potential occupational exposure to methane gas during construction. **HMW-IAMF#2** will also require monitoring of potential occupational exposure during construction to track impacts. With **GEO-IAMF#3**, the contractor will be required to submit a Construction Management Plan to the Authority for review and approval addressing how gas monitoring will be incorporated into construction best management practices. Safety hazards related to potential migration of hazardous gases because of active or historical landfills can be reduced or eliminated by following strict federal and state Occupational Safety and Health Administration regulatory requirements for excavations, and by consulting with other agencies as appropriate.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A in terms of temporary exposure to landfill hazards during project construction because there are no additional or different active or closed landfills within 0.25 mile of the 15th Street LMF site. Three of the eight closed landfills, however, would be within 0.25 mile of the 15th Street LMF location. The same IAMFs listed for Shared Passenger Track Alternative A (**HMW-IAMF#2** and **GEO-IAMF#3**) apply to Shared Passenger Track Alternative B and will minimize exposure to landfill hazards during construction.

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 within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, and would be within 0.25 mile of the same three closed landfills. The same IAMFs listed for Shared Passenger Track Alternative A (**HMW-IAMF#2** and **GEO-IAMF#3**) apply to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the optional Fullerton HSR Station Option, impacts would be the same as those for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within a larger area than what would be modified under the Shared Passenger Track Alternatives, but the station area is not within 0.25 mile of any of the identified landfills. The same IAMFs listed for Shared Passenger Track Alternative A (**HMW-IAMF#2** and **GEO-IAMF#3**) apply to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA related to temporary exposure to landfills during project construction would be less than significant. **HMW-IAMF#2** and **GEO-IAMF#3** will effectively minimize impacts of landfill hazards. The impact from temporary exposure to landfills would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-8: Temporary Exposure to Oil and Gas Well Hazards

Shared Passenger Track Alternative A

The project section would traverse four oil fields. Within the RSAs, 677 oil and gas or water wells are present.[20] Refer to Appendix 3.10-A for figures depicting well locations. Additionally,

[20] The water wells included in the well database are not potable water wells. They are wastewater disposal wells and water flood wells associated with oil and gas production that are physically connected to underlying oil and gas formations and represent potential construction hazards.

Figure 3.10-12 in Appendix 3.10-A depicts six oil wells within the project footprint. Accordingly, there are potential risks related to encountering oil wells in the project section.

The California Geologic Energy Management Division data are from December 5, 2023, as plotted on figures in Appendix 3.10-A. The number of wells mapped within the RSA are same with and without HSR station and optional station footprints.

Because construction workers would work near these oil wells and potentially be exposed to occupational hazards from oil well releases, the Authority will develop and apply design standards requiring identification and inspection of active and abandoned oil and gas wells within 200 feet of the HSR track prior to commencing construction (**SS-IAMF#4**), monitor for subsurface gases, and use explosion-proof equipment during project construction in areas where explosion hazards exist (**GEO-IAMF#3**). Both measures will be incorporated as part of the Construction Management Plan 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**. A spill prevention and response plan will be prepared under **HMW-IAMF#6**, and management of landfill hazards will occur under **HMW-IAMF#2**.

Active wells will be abandoned and relocated in accordance with the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources standards, and in coordination with the well owners. **SS-IAMF#4**, **HMW-IAMF#4**, and **GEO-IAMF#3** will reduce the potential for accidents associated with encountering oil or gas wells such as well fires or explosions that could affect the safety of construction workers, passengers, and the public. Therefore, the safety plans, design standards, and features of the project would reduce impacts from temporary exposure to oil and gas well hazards and accident risks that could affect the safety, security, or health of workers or visitors. Refer to Section 3.10, Impact HMW-7, Risks during Construction on or Near Landfills and Oil and Gas Wells, for additional discussion of the potential for release of hazardous materials from oil and gas wells during construction.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A in terms of temporary exposure to oil and gas well hazards during project construction. For Shared Passenger Track Alternative B there would be the same oil and gas wells present in the RSA. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#4**, **HMW-IAMF#2**, **HMW-IAMF#4**, **HMW-IAMF#6**, and **GEO-IAMF#3**) apply to 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 described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, and would not include additional or different oil or gas wells within the RSA. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#4**, **HMW-IAMF#2**, **HMW-IAMF#4**, **HMW-IAMF#6**, and **GEO-IAMF#3**) apply to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within a larger area than what would be modified under the Shared Passenger Track Alternatives, but it would not include additional or different oil or gas wells within the RSA. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#4**, **HMW-IAMF#2**, **HMW-IAMF#4**, **HMW-IAMF#6**, and **GEO-IAMF#3**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA on community safety related to temporary exposure to oil and gas wells during project construction would be less than significant. **SS-IAMF#4**, **HMW-IAMF#2**,

HMW-IAMF#4, **HMW-IAMF#6**, and **GEO-IAMF#3** will effectively minimize impacts of oil and gas well hazards. The Authority will identify and inspect active and abandoned oil and gas wells within 200 feet of the HSR track prior to commencing construction, thereby reducing the potential for accidents such as fires or explosions associated with encountering oil or gas wells. The impact from temporary exposure to oil and gas well hazards would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-9: Temporary Exposure to Valley Fever

Shared Passenger Track Alternative A

Construction activities for the project would require grading, excavation, and landscaping that could temporarily disrupt soil containing the fungus that causes Valley fever. Disrupting soil that contains this fungus could cause airborne dust, which could be inhaled by construction workers and visitors to the site. The public could be exposed to the fungus that causes Valley fever from off-site transport of fill material on public roads and from fugitive dust outside the boundaries of the construction sites. Inhalation of airborne dust that contains the fungus that causes Valley fever could pose a threat to health if a fungal infection is contracted. People who contract the fungal infection develop flu-like symptoms, including fever, chest pain, muscle or joint aches, and coughing. Between 2017 and 2022, there were between 9.9 and 15.7 cases per 100,000 people reported annually in Los Angeles County and between 6.1 and 9.4 cases per 100,000 people reported annually in Orange County (LACDPH 2023; CDPH 2022, 2024).

The project design contains measures to prevent the spread of Valley fever during construction by managing fugitive dust emissions through a fugitive dust control plan (**AQ-IAMF#1**). The fugitive dust control plan applied by the Authority for each distinct construction segment will describe how each measure is employed as part of the plan, and who is responsible for managing the project design measures. As part of the fugitive dust control plan measures, during construction, vehicles transporting construction fill material on public roads will be covered; trucks and equipment transporting construction fill material will be washed prior to leaving construction work areas and traveling on public roads. In addition, the plan will require exposed surfaces and unpaved roads in construction areas to be watered as needed to control fugitive dust (**AQ-IAMF#1**). Vehicle travel speeds on unpaved roads will be limited as specified in the fugitive dust control plan. Disturbed areas and on-site and off-site unpaved roads will be stabilized by watering or presoaking disturbed land during all land-clearing, grubbing, scraping, excavation, land-leveling, grading, cut-and-fill, and demolition activities; washing exterior surfaces of buildings during demolition; and removing accumulation of mud or dirt from public streets.

The project design also includes preparation and application of an SSMP (**SS-IAMF#2**) by the Authority prior to construction. **SS-IAMF#2** requires preparation of a Valley Fever action plan that includes: (1) information on causes, preventive measures, symptoms, and treatments for Valley Fever for individuals who could potentially be exposed through construction activities (i.e., construction workers, monitors, managers, and support personnel); (2) continued outreach and coordination with the California Department of Public Health; (3) coordination with county departments of public health to ensure that the above-referenced information concerning Valley Fever is readily available to nearby residents, schools, and businesses and to obtain area information about Valley Fever outbreaks and hotspots; and (4) provision of a qualified person dedicated to overseeing implementation of the Valley Fever prevention measures to encourage a culture of safety of the contractors and subcontractors.

Through effective coordination, education, and prevention measures related to the IAMFs, temporary impacts on construction workers and the public from exposure to Valley fever would be minimized.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those of Shared Passenger Track Alternative A in terms of exposure to Valley fever during project construction. Construction of the 15th Street LMF would also require grading, excavation, and landscaping that could result in temporary exposure to Valley fever. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **AQ-IAMF#1**) apply to

Shared Passenger Track Alternative B and will minimize impacts related to Valley fever during construction.

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 within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, and would require the same types of construction activities, such as grading, excavation, and landscaping. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **AQ-IAMF#1**) apply to construction of the Norwalk/Santa Fe Springs HSR Station Option and will minimize impacts related to Valley fever during construction.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives. Construction of the HSR platform, facilities, and parking would occur within a larger area than what would be modified under the Shared Passenger Track Alternatives. However, construction of the Fullerton HSR Station Option would require the same types of construction activities, such as grading, excavation, and landscaping. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **AQ-IAMF#1**) apply to construction of the Fullerton HSR Station Option and will minimize impacts related to Valley fever during construction.

CEQA Conclusion

The impact under CEQA on community safety related to temporary exposure to Valley fever during project construction would be less than significant. **SS-IAMF#2** and **AQ-IAMF#1** will effectively minimize exposure of individuals to the fungus that leads to Valley fever. **SS-IAMF#2** requires the contractor to develop an SSMP, a Valley Fever action plan, a Site-Specific Health and Safety Plan, and a Site-Specific Security Plan that identify the local conditions and requirements unique to the construction site and work to be performed. **AQ-IAMF#1** requires construction work area fugitive emissions control plans to be developed prior to construction. The impact from temporary exposure to Valley fever would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-10: Interference with Aviation Safety

Shared Passenger Track Alternative A

There is one public-service airport, 33 private heliports, and 8 public heliports within 2 miles of the project. A Metropolitan Water District heliport on Alameda Street in Los Angeles County is 300 feet from the project. Fullerton Municipal Airport in Fullerton in Orange County is less than 0.1 mile from the existing Fullerton Metrolink/Amtrak Station in the project section. The potential for the project to result in safety hazards in relation to airports and the heliport in the safety and security RSAs has been analyzed consistent with the *California Airport Land Use Planning Handbook* (Caltrans 2011) guidance on land use restrictions developed to minimize public exposure to safety hazards.

Impacts from Shared Passenger Track Alternative A related to heliports could include interference of land uses with aviation operations, including heights of buildings and structures for both airports and heliports. Federal Aviation Regulation Part 77 defines imaginary surfaces as airspace surfaces that are used to identify obstructions to air navigation. In effect, these surfaces are used to delineate a three-dimensional buffer surrounding an airport to protect the airspace from any hazards to air navigation. Part 77 limits the height of structures to 200 feet above ground level, or above the established airport elevation, whichever is higher, within 1.2 miles of the airport. Shared Passenger Track Alternative A would be within 1.2 miles of the Metropolitan Water District heliport and Fullerton Airport. However, Shared Passenger Track Alternative A would not build structures of this height within 1.2 miles of either of these heliport or airport facilities. Shared Passenger Track Alternative A would involve construction of new passenger rail

within the RPZ of Fullerton Municipal Airport and therefore would be inconsistent with the *Airport Environs Land Use Plan for Fullerton Municipal Airport* (Orange County Airport Land Use Commission 2019). Conflicts from Shared Passenger Track Alternative A with operations of the above airports and heliports would be assessed during the FAA review and approval process; please refer to Figures 3.11.C-1 through 3.11.C-6 in Appendix 3.11-C for additional details.

To address the potential for HSR construction and operation to disrupt airfield and airspace operations at these aviation facilities, **SS-IAMF#5** requires the Authority to submit designs and information to FAA per 14 CFR Part 77 to ensure that permanent HSR features within and adjacent to the boundary of these facilities do not intrude into imaginary surfaces as defined in 14 CFR Part 77.9(b). Potential hazards during construction (e.g., excavation, overhead crane operation) could interfere with pertinent height restrictions. The SSMP developed under **SS-IAMF#2** will include procedures for protection of high-risk facilities within the project footprint.

In the Fullerton Municipal Airport area, the proposed tracks would enter an approximately 0.9-mile below-grade section after crossing Dale Street in Fullerton (the location of the current Buena Park Metrolink Station). This area would require a below-grade trench configuration (refer to Figure 2-51 in Chapter 2) to cross under the BNSF tracks and to avoid conflicts with the Fullerton Municipal Airport RPZ (refer to Figure 3.11.C-4). This trench configuration would be 40 feet below existing grade with an inside width dimension of 41 feet by 6 feet.

Within the Fullerton Municipal Airport RPZ, both HSR tracks and the overhead contact system would be below grade and would, thus, not conflict with height restrictions of the RPZ. Additionally, consistent with the RPZ land use provisions set forth by the *Airport Environs Land Use Plan for Fullerton Municipal Airport* (Orange County Airport Land Use Commission 2019), the potential for excessive glare or light emissions or interference with aircraft caused by dust as a result of HSR operations would be minimized through installation of the trench. HSR operations would not generate steam or smoke and therefore would not interfere with aircraft operations. Moreover, the project would not place habitable buildings within the RPZ. Refer to Section 3.5 for an analysis of potential impacts associated with electronic interference.

The new tracks would return to grade just before Gilbert Street and remain at grade through the Fullerton Metrolink/Amtrak Station. Consequently, the Fullerton Metrolink/Amtrak Station modifications would not encroach on areas that have height restrictions associated with the RPZ and *Airport Environs Land Use Plan for Fullerton Municipal Airport* (Orange County Airport Land Use Commission 2019).

The project would introduce new railcar passengers traveling through the RPZ. The project section is incompatible with the *Airport Environs Land Use Plan for Fullerton Municipal Airport*, because the project section would place new passenger rail within the Fullerton Municipal Airport RPZ. The inconsistency is related to the potential placement of people within areas susceptible to aircraft accidents in the RPZ during construction and operation. All new projects and proposed development within an RPZ must be vetted and approved by FAA; such would be the case for the HSR alignment at Fullerton Municipal Airport. Construction within the RPZ would be subject to FAA review.

Construction workers building the project section in the RPZ would be exposed to potential effects of aircraft accidents. Construction workers could be operating above-ground equipment including cranes and drill rigs in the RPZ. This above-ground equipment would be operated intermittently and for short periods of time throughout the construction period. Construction workers working below grade would be partially shielded from effects of aircraft accidents. During operations, there would be minimal exposure to those present in the RSA and those riding on the train to a safety hazard in the vicinity of an airport or private airstrip in the event of an accident because the HSR trains would only be temporarily within the RPZ while traveling along the project alignment. With installation of the trench, HSR trains would predominantly be shielded from an explosion or debris in the event of an aircraft accident.

Additionally, coordination with FAA and adherence to **SS-IAMF#2** and **SS-IAMF#5** will help ensure compliance with aviation safety regulations and compliance with any FAA conditions

resulting from FAA review of the project section, further minimizing risks during construction and operation. Consequently, the project would not result in interference with airport safety during construction and operations or increase hazards related to airspace safety.

Shared Passenger Track Alternative B

With the LMF at 15th Street, aviation safety impacts for Shared Passenger Track Alternative B would be the same as that discussed for Shared Passenger Track Alternative A because neither LMF site is in the vicinity of an airport. The 15th Street LMF would not be near Fullerton Municipal Airport; however the other project features would be the same as those of Shared Passenger Track Alternative A. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#5**) apply to 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 discussed for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within the same area that would be modified under the Shared Passenger Track Alternatives, would be within the same distance of the nearest airport (approximately 5.6 miles from Fullerton Municipal Airport), and would not include structures 200 feet above ground level. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#5**) would apply.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as discussed for the Shared Passenger Track Alternatives within the station area. Construction of the HSR platform, facilities, and parking would occur within a larger area than would be modified under the Shared Passenger Track Alternatives, but would still be within the same distance of the nearest airport (less than 0.1 mile from Fullerton Municipal Airport) and would not include structures 200 feet above ground level. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#5**) would apply.

CEQA Conclusion

There would be a less-than-significant impact under CEQA related to temporary or permanent interference with aviation safety during project construction or operation. The Shared Passenger Track Alternatives would not encroach on areas defined in the airport land use plan that have height restrictions for Fullerton Municipal Airport. Additionally, construction would not interfere with the Metropolitan Water District's heliport operations. Under **SS-IAMF#5**, the Authority will ensure FAA requirements and any FAA conditions resulting from FAA review of the project section are met. Also, with incorporation of **SS-IAMF#2** and **SS-IAMF#5**, HSR construction would not substantially increase hazards because of being located within an airport or airport land use compatibility plan area. Therefore, CEQA does not require mitigation.

Operational Impacts

Impact SS-11: Permanent Interference with Emergency Response Access from Operational Activities

Shared Passenger Track Alternative A

During operations, high-speed trains would traverse a generally access-controlled right-of-way, with the exception of eight at-grade crossings in Anaheim.

Emergency response access is related to the ability of emergency responders to access the track, stations, and the LMF locations during on-site emergencies, and of emergency responders to cross the access-controlled sections on the track to respond to emergencies. The project would include at-grade, below-grade, and elevated sections of track, as well as a station and maintenance facility, which emergency services (e.g., medical, fire, and police) would need to access in the event of a rail accident, rail incident, or other emergency situation.

Delays in emergency response could occur if access is needed to the portions of elevated and below-grade tracks during an emergency event because of the limited number of accessibility

points to these elevated and below-grade locations. The project is approximately 30 miles in length and would include 23.8 miles of at-grade track, 5.0 miles of elevated track, and 0.9 mile of below-grade track.

Project design includes provisions for emergency service access to the access-controlled portions of the right-of-way including at-grade, below-grade, and elevated portions of the track to allow for emergency access and evacuation in the event of an emergency.

In addition, Shared Passenger Track Alternative A includes safety and security IAMFs as design features to avoid or reduce risk of permanent interference with emergency response access and evacuations in the event of an emergency during operations. These include emergency operating procedures, an SSP plan, a SEPP, and a fire and life-safety program (**SS-IAMF#2**). The Authority will coordinate with local emergency service providers in developing and applying the System Safety Plan and SEPP to establish an efficient and coordinated response protocol, systems, and procedures across the multiple agencies that may be involved in responding to an emergency incident. Collectively, these efforts will avoid impacts on emergency access by providing coordinated procedures for emergency responder access to the HSR access-controlled right-of-way, elevated track, and below-grade track.

As indicated in **SS-IAMF#2**, design standards and guidelines will be required for installation of emergency walkways on both sides of tracks for elevated, below-grade and at-grade sections and provisions of appropriate space as defined by fire and life safety codes along at-grade sections of the alignment to allow for emergency response access.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those of Shared Passenger Track Alternative A. Operation of the LMF at 15th Street would not impede emergency access within the area. The LMF would be designed to allow for emergency response access in the event of incidents requiring response. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to Shared Passenger Track Alternative B and includes safety and security design features to avoid or reduce risk of permanent interference with emergency response access and evacuations in the event of an emergency during operations.

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 related to permanent interference with emergency access would be the same as those described for the Shared Passenger Track Alternatives within the station area. Operation of the Norwalk/Santa Fe Springs HSR Station Option would not impede emergency response access to the station. The station would be designed to allow for emergency response access in the event of incidents requiring response. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts related to permanent interference with emergency access would be the same as those described for the Shared Passenger Track Alternatives within the station area. Operation of the Fullerton HSR Station Option would not impede emergency response access to the station. The station would be designed to allow for emergency response access in the event of incidents requiring response. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA from permanent interference with emergency response access during project operation would be less than significant. **SS-IAMF#2** will effectively minimize impacts related to permanent interference with emergency response access and evacuations in the event of an emergency. **SS-IAMF#2** establishes design standards, systems, and procedures such that project operation would not result in inadequate emergency access to the HSR access-controlled

right-of-way, stations, or maintenance facilities. Therefore, the impact from permanent interference with emergency response access during operation would be less than significant under CEQA and does not require mitigation.

Impact SS-12: Permanent Interference with Emergency Response Times from Operational Activities

Shared Passenger Track Alternative A

There would be no new at-grade roadway-railroad crossings in the project section. Eight existing at-grade roadway-railroad crossings in Anaheim would be retained (Orangethorpe Avenue, La Palma Avenue, Sycamore Street, Broadway, Santa Ana Street, South Street, Vermont Avenue, and Ball Road). These existing crossings are currently equipped with four-quadrant gates or medians that are activated by Metrolink, Amtrak, and freight trains, which would not be modified as part of the HSR project. Gate-down time is a summation of multiple actions that occur in sequence so that all modes can cross safely. These actions are listed and explained in chronological order as follows:

- Gate flashers, located on gate arms to increase visibility, are triggered by a gate crossing event.
- Gate arms descend, moving from vertical to horizontal position, indicating that all vehicular, bicycle, and pedestrian traffic must stop at the crossing to allow the train(s) to pass safely.
- Train passes and fully clears the crossing.
- Gate arms rise, moving from horizontal to vertical position.

The total gate-down time at a crossing includes the time for the train to pass through the crossing and the gates to come up once the train has been detected to have exited the crossing. Total time is governed by the speed of the train, geometric configuration of the specific crossing, and other site-specific characteristics. Although no new at-grade crossings would be introduced, the frequency of gate-down events at the existing crossings in Anaheim would increase as a result of HSR operations, with up to four new gate-down events per hour (up to two HSR trains per hour in each direction). The additional gate-down times could result in an increase in the frequency that an emergency vehicle is stopped at an at-grade crossing by a train crossing.

The Authority conducted a screening analysis of potential effects on emergency vehicle response times through a geospatial assessment of fire stations along both sides of the rail corridor within 1 mile of the eight at-grade crossings (STV 2025a). The screening analysis modeled future traffic conditions with the addition of HSR operations, assuming that HSR gate-down times would be similar to Metrolink/Amtrak gate-down times, given the trains would travel at approximately the same speed through this segment of the corridor. When taking into account future HSR operations with passenger rail and freight trains, the total time that the gates would be down per hour would increase from the current maximum of approximately 9 minutes to approximately 13 minutes per hour, which represents an approximately 7 percent increase in gate-down time (meaning an additional 4 minutes over the course of an hour) with the addition of HSR train operations.

The screening analysis also evaluated the increase in response time caused by a passing HSR train. It is important to note that the screening analysis conservatively assumed that the closest fire station to the modeled incident location (based on the roadway network) would be the dispatch location, without accounting for potential routing protocols the city may have in place regarding the existing railroad corridor or for the city's ability to dispatch the closest vehicle in the field. Refer to Table 3.11-13 and Figure 3.11-8 for the locations of the three closest, existing fire stations in this area. The City of Anaheim is currently building a new fire station on State College Boulevard south of Katella Avenue, anticipated to be completed in 2026, and is planning for another fire station near Lincoln Avenue and Interstate 5; both of these fire stations would increase the city's capacity for emergency response, but were not considered in the screening analysis. Additionally, the assessment did not include any response management technologies, such as emergency signal prioritization at intersections and real-time crossing information

systems, because these technologies are presently limited in Anaheim. Therefore, the model uses conservative assumptions for the roadway network and emergency response routes.

Table 3.11-13 Locations of Anaheim Fire Department Stations within One Mile of At-Grade Crossings

Fire Station	Location
Fire Station #1	500 E Broadway
Fire Station #3	1717 S Clementine St
Fire Station #7	2222 E Ball Rd

Source: City of Anaheim 2024b

The screening analysis identified locations in Anaheim that could experience a delay in response times for two scenarios:

1. Emergency vehicles waiting at a gate-down crossing (i.e., not taking a detour route) would experience a delay of up to 41 seconds waiting for an HSR train to pass. This delay is similar to the No Project Alternative conditions, where an emergency vehicle would need to wait for a Metrolink or Amtrak gate-down event, because the train speeds are similar to HSR trains.
2. Emergency vehicles taking a detour route to avoid the at-grade crossings would experience a delay up to 65 seconds but delays would affect fewer areas than Scenario 1 above. This delay is similar to the No Project Alternative conditions, where an emergency vehicle would need to wait for a Metrolink or Amtrak gate-down event, because the train speeds are similar to HSR trains.

For both scenarios described above, the affected areas are primarily on the east side of the corridor between La Palma Avenue and South Street, which falls within the service boundaries of Fire Station #1. However, many of the affected areas also overlap with the service boundaries of the other fire stations in the vicinity (Fire Stations #3 and #7). Fire Stations #3 and #7 are on the same side of the railroad corridor as the majority of the affected areas and, in many cases, nearly equidistant to the incident as Fire Station #1 (as described above, the model did not account for potentially more efficient dispatching and routing, but only considered the closest fire station as the dispatch location for a worst-case scenario). Finally, some of the modeled delays were caused by the emergency vehicle waiting for left-turn lights, because the model conservatively did not include signal prioritization for the emergency vehicles.

Not every emergency requires an emergency vehicle to cross the tracks, and not every emergency vehicle crossing the tracks would encounter a passing train during a response. As described above, the probability that an emergency response vehicle would encounter a gate-down event would increase by 7 percent, meaning that the total amount of delay each hour could increase. However, the response time of an individual trip across the rail corridor would be similar to the No Project Alternative conditions, because HSR trains would operate similarly to existing passenger trains. The median response time would be less than 4 minutes, and about 80 percent of the screening analysis study area could be served within 5 minutes. The maximum response time would be less than 8 minutes, and 100 percent of the screening analysis study area could be served in under 8 minutes (STV 2025a). As described in Table 3.11-4, Anaheim Fire and Rescue's response goals are 5-minute engine response time to 90 percent of incidents, and 8 minutes for the remaining 10 percent.

Figure 3.11-8 Fire Stations Service Boundaries and At-Grade Crossings in Anaheim

Additionally, the Authority evaluated if there could be an emergency response delay if HSR gate-down sequences combined with other freight and passenger rail gate-down sequences to generate traffic queues that block adjacent intersections, thereby affecting emergency response travel through those intersections. For this impact to occur, the trains would need to operate

closely enough so that their separate gate-down sequences would be combined into a single, long gate-down sequence. There are two potential scenarios under which this combined gate-down sequence could occur:

1. **Combined HSR and passenger rail:** This scenario is unlikely to occur for HSR and other passenger rail trains. Current Metrolink and Amtrak schedules include at least 5 minutes between trains. HSR service would be similarly scheduled to ensure that there is temporal separation so that trains would be spaced out. Per **TR-IAMF#13**, the Authority will coordinate with transportation agencies to ensure that future HSR operations does not affect rail service.
2. **Combined HSR and BNSF:** There is the potential for BNSF and HSR gate-down sequences to combine if the trains (traveling in opposite directions) overlap. This freight-and-passenger-rail combination scenario currently exists, with BNSF and Metrolink and Amtrak operations.

Queue lengths were calculated for peak periods for HSR gate-down times (STV 2025b). The majority of intersections adjacent to the at-grade crossings are far enough away (approximately 1,000 to 2,300 feet) that traffic queues would not back up from the gate-down crossings all the way to the adjacent signals. Only the Ball Road at-grade crossing was projected to create queue lengths long enough to block the adjacent intersection at Lewis Street, which is 540 feet away. However, this scenario at Ball Road already exists, because of the proximity of the Ball Road/Lewis Street intersection to the railroad crossing; in the existing condition, the spacing between the passenger rail trains is sufficient so that queues are able to clear out before the arrival of the next train. The addition of HSR operations would not change this, because HSR would also be spaced out from other passenger rail trains, similar to existing conditions, which allows for safe operations.

For the combined HSR and BNSF gate-down sequence scenario, the combined gate-down time for each crossing would be nearly identical to the existing combinations of BNSF and Metrolink/Amtrak trains, with less than a 1 percent difference (STV 2025b). Although the addition of HSR trains would increase the total number of gate-down sequences occurring each day, it would not increase the queueing time of any single gate-down sequence. BNSF trains have been operating in this segment of the corridor for many decades, with about four trains per day without a set schedule. Given BNSF's history of operations in the area, Anaheim Fire and Rescue's practice is to reroute its emergency response vehicles that are responding to an emergency if those vehicles encounter a gate-down event (Anaheim Engineering Department and Fire and Rescue 2025).

Overall, it is generally not anticipated that HSR operations would substantially increase response times so that the city's ability to deliver emergency services would be impaired. Nevertheless, to ensure that delays in response times are minimized and the city's ability to deliver emergency services is not impaired, the Authority would implement **SS-MM#1, Implement Emergency Response Time Mitigation Strategies**. **SS-MM#1** requires the Authority to conduct monitoring to identify the extent to which HSR operations would affect the City of Anaheim's response times. If the monitoring results determine that HSR operations are impairing the city's ability to deliver emergency services at specific locations, the Authority would coordinate with the City of Anaheim and would implement, based on a fair-share funding strategy outlined in more detail in the discussion of **SS-MM#1** in Section 3.11.7.1, targeted mitigation strategies at specific locations. These strategies may include:

- Upgrading emergency vehicle signal preemption systems at intersections (if not already installed at the time of HSR operation) to reduce signal delay
- Implementing real-time gate status communication systems to enable dynamic rerouting and avoid blocked crossings
- Enhancing interagency dispatch protocols so that emergency units are dispatched from the side of the rail corridor not obstructed by a gate-down event

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts related to permanent interference with emergency response times during project operation for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A. The alternatives differ only in the LMF site. Because there would be no at-grade crossings for either of these sites, the impacts are expected to be the same for both alternatives. Operation of the LMF at the 15th Street would not result in any permanent at-grade crossings of public roadways that would result in grade crossing delay during operation. The same eight at-grade crossings would be retained in Anaheim. With implementation of **SS-MM#1**, which includes monitoring, coordination with the City of Anaheim, and targeted operational improvements (e.g., signal preemption upgrades, real-time gate status communication, enhanced dispatch protocols), impacts on emergency response time in Anaheim would be minimized.

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 related to permanent interference with emergency response times would be the same as those described for the Shared Passenger Track Alternatives. Operation of the HSR station elements would not include activities that would interfere with emergency response times in the vicinity of the station area. The same eight at-grade crossings would be retained in Anaheim. The HSR trains stopping at the Norwalk/Santa Fe Springs HSR Station Option would pass through the crossings at the same speed as under Shared Passenger Track Alternative A, and would not have a different effect on the gate-down time or potential delays. With implementation of **SS-MM#1**, which includes monitoring, coordination with Anaheim Fire and Rescue, and targeted operational improvements (e.g., signal preemption upgrades, real-time gate status communication, enhanced dispatch protocols), impacts on emergency response time in Anaheim would be minimized.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts related to emergency response times would be greater than those identified under Shared Passenger Track Alternative A. Because HSR trains would stop at and depart from the Fullerton HSR Station Option approximately 1 mile from the first of the at-grade crossings in Anaheim, the screening analysis conservatively assumes they would be traveling at slower speeds through the at-grade crossings, thereby increasing the gate-down times to 90 seconds, compared to nonstop service at 60 seconds.

When taking into account future HSR operations with passenger rail and freight trains, the amount of time that the gates would be down per hour would increase from approximately 9 minutes each hour to approximately 15 minutes.

The screening analysis identified locations that could experience a delay in response times for two scenarios:

1. Emergency vehicles waiting at a gate-down crossing (i.e., not taking a detour route) would experience a delay of up to 93 seconds waiting for an HSR train to pass. This delay is similar to the No Project Alternative conditions, where an emergency vehicle would need to wait for a Metrolink or Amtrak gate-down event, because the train speeds are similar to HSR trains.
2. Emergency vehicles taking a detour route to avoid the at-grade crossings would experience a delay up to 117 seconds in one location from increased travel times on a longer route, but delays would affect fewer areas than Scenario 1 described above. This delay is similar to the No Project Alternative conditions, where an emergency vehicle would need to wait for a Metrolink or Amtrak gate-down event, because the train speeds are similar to HSR trains.

Similar to Shared Passenger Track Alternative A, the affected areas are primarily on the east side of the corridor between La Palma Avenue and South Street, which overlap with two other fire station service boundaries that are also on the east side of the corridor.

Overall, it is not anticipated that HSR operations with inclusion of the Fullerton HSR Station Option would substantially increase response times so that the city's ability to deliver emergency

services would be impaired. Not every emergency requires an emergency vehicle to cross the tracks, and not every emergency vehicle crossing the tracks would encounter a passing train during a response. As described above, the probability that an emergency response vehicle would encounter a gate-down event would increase by approximately 10 percent, meaning that the total amount of delay each hour could increase. However, the response time of an individual trip across the rail corridor would be similar to the No Project Alternative conditions, because HSR trains would operate similarly to existing passenger rail. When factoring in the delay times for both scenarios, the median response time would be less than 4 minutes, and approximately 80 percent of the screening analysis study area could be served within 5 minutes, which is the same as for the Shared Passenger Track Alternatives. However, the maximum response time for scenario #1 would be higher than 8 minutes with inclusion of the Fullerton HSR Station Option, which could affect approximately 6 percent of the screening analysis study area.

To ensure that delays in response times are minimized, the Authority would implement **SS-MM#1**, which includes monitoring, coordination with Anaheim Fire and Rescue, and targeted operational improvements (e.g., signal preemption upgrades, real-time gate status communication, enhanced dispatch protocols). Therefore, impacts on emergency response times in Anaheim would be minimized.

CEQA Conclusion

The impact under CEQA from permanent interference with emergency response times during project operations would be potentially significant. HSR operations would add up to four new gate-down events each hour, and as the probability of encountering a gate-down event is increased, it could result in an increase in the total amount of delay each hour. The response time of an individual trip across the rail corridor is anticipated to be the same as the No Project Alternative conditions, because the passenger trains would all be operating at similar speeds. For impacts related to queueing, the addition of HSR trains would increase the total number of gate-down times per day, but would not exacerbate any existing queueing scenarios. Incorporation of **TR-IAMF#13** would ensure that future passenger rail schedules are coordinated so that there would not be traffic queues from combined passenger rail gate-down sequences. To ensure that delays in response times are minimized, the Authority would implement **SS-MM#1**, which includes monitoring and coordination with the City of Anaheim to develop and implement targeted improvements. Potential improvements include installing upgrades to emergency vehicle signal preemption systems, implementing real-time gate status communication systems, and enhancing interagency dispatch coordination. With implementation of **SS-MM#1**, delays would be reduced and the impact would be less than significant under CEQA.

Impact SS-13: Permanent Exposure to Rail-Related Hazards

Shared Passenger Track Alternative A

In the project section, several trains would operate within the LOSSAN Corridor. Passenger trains would include HSR, the Metrolink Orange County and 91/Perris Valley Lines, and the Amtrak Pacific Surfliner. Freight trains would include BNSF and UPRR. As the proposed Shared Passenger Track Alternatives are within the active LOSSAN Corridor, existing rail operators may have to change their operational patterns. New and realigned tracks would change the tracks on which the various users operate. Per **TR-IAMF#13**, rail operators (HSR, Metrolink, Amtrak, BNSF, and UPRR) would coordinate train schedules and storage and maintenance needs to ensure efficiency and safety of the shared use of the corridor.

In the project section, HSR and other passenger trains would operate in a shared-track system. This entails sharing tracks, an electromotive power system, and signal control system. Freight rail would generally not operate on the shared-track alignment; however, changes to operational patterns may be required by freight operators because of new and realigned tracks in the LOSSAN Corridor. Project operations would add up to two HSR trains (top speed 90 mph) per hour per direction in the LOSSAN Corridor. PTC for the shared track system will monitor and, if necessary, control train movement in the event of operational incidents, improving safety by preventing train-to-train collisions, overspeed derailments, movements through misaligned switches, and incursions through work zones.

Because the project would add HSR trains to the already busy corridor, project operations could increase potential for railroad-related accidents, posing safety hazards to passengers, crew, residences, and other properties. The types of accidents that could be associated with the HSR system are separated into train-to-train collisions; collisions between an HSR train and objects entering the HSR corridor, such as vehicles from adjacent highways or trains from adjacent freight lines; and HSR derailments. Derailment could result in an HSR train, locomotives or passenger railcars, or debris leaving the project section guideway and affecting publicly accessible areas outside of the right-of-way. Train-to-train collisions or other collisions could result in casualties to HSR passengers and employees.

Train-to-Train Collisions

There would be ten railroad-to-railroad crossings in the project section: four in Los Angeles, three in Vernon, two in Santa Fe Springs, and one in Anaheim. These crossings represent areas where different train services operate alongside each other along the same corridor, not necessarily where tracks physically intersect.

Potential collisions between HSR trains and other trains operating in the shared-track system would be avoided because dispatching would separate HSR trains and other trains temporally. Temporal separation of the HSR trains and other trains would be achieved through train control systems such as PTC to avoid other trains and HSR trains operating at the same time on the shared track system tracks, thereby making train-to-train collisions highly unlikely during normal operations.

Trains operating at or above 125 mph require avoidance of at-grade intersections on dedicated (i.e., exclusive, non-shared) rail alignments. However, in this project section, top train speeds would be below 90 mph. Lower-speed operations and temporal separation would reduce the risk of train-to-train collisions.

Project operations will be managed by an SSMP (**SS-IAMF#2**), which will describe the procedures, processes, and programs to support safety and security goals. These include a maintenance, inspection, and repair program for the dedicated HSR facilities; a rules compliance and procedures review program; and an employee and contractor training program that will maintain system safety. Rail systems must comply with FRA requirements for tracks, equipment, railroad operating rules and practices, passenger safety, emergency response, and passenger equipment safety standards found in 49 CFR Parts 200–299.

During design, the Authority-designated contractor will conduct a site-specific preliminary hazard analysis and a threat and vulnerability assessment to identify potential collision hazards and other facility hazards and vulnerabilities, including security vulnerabilities in rail vehicles, that then could either be eliminated or minimized by the HSR design (**SS-IAMF#3**). These provisions will apply to the HSR facilities, including HSR station facilities, the LMF, and HSR shared track. The preliminary hazard analysis and threat and vulnerability assessment are project design features that would identify and minimize or eliminate hazards and vulnerabilities, thereby reducing the probability and potential consequences of accidents and incidents during operations.

Collisions Between a High-Speed Train and Objects Entering the Rail Corridor; Other Hazards

The HSR system would include appropriate barriers (fences and walls) and state-of-the-art communication, access control, and monitoring and detection systems, and would conform to the latest federal requirements regarding transportation security. Highway overpasses would be equipped with a combination of rigid traffic barrier and access-restricting fencing to prevent the intrusion of both vehicles and persons. Access-restricting fences at highway overpasses would have a curved top section to deter the throwing of objects onto the trainway. Solid barriers would be installed directly above the trainway to prevent contact with the overhead contact system wires (Authority 2013b).

The project's hazard detection system will alert the systemwide Operations Control Center of natural events such as seismic activity, excessive wind speeds, high water levels, and excessive ambient temperature levels that could result in hazards and objects entering and obstructing or

colliding with the trains and other objects that could cause an accident. The hazard detection system will also include systems for detection of trespassers (Authority 2013b). Depending on magnitude and location, earthquakes may require a system response, such as slowing or halting train operations until track inspection and any necessary repairs can be completed. The signal control system within the LOSSAN Corridor would respond to identified incidents.

Train Derailment

Derailments could result in safety impacts, including injuries and casualties, on HSR passengers and crew. Derailments could also result in HSR locomotives, HSR passenger railcars, or debris leaving the project section guideway and affecting publicly accessible areas outside of the right-of-way, including nearby buildings and residences. The potential for such impacts to occur would be reduced because project design would include safety systems including PTC systems to reduce the potential for derailments, designed to maintain the HSR trains within the guideway in the event of a derailment or resulting collision. All existing roadway overcrossings over the shared tracks would be modified to have protective barriers on the top to prevent people or objects from entering the HSR right-of-way from the bridge. Detailed plans of barrier type and installation details will be determined during the Preliminary Engineering for Procurement[21] design phase and through coordination with the corridor stakeholders.

Because Shared Passenger Track Alternative A would be within the LOSSAN Corridor and would operate adjacent to BNSF, Amtrak, and Metrolink tracks, there would be the potential for a conventional passenger or freight train derailing, entering the HSR shared track and obstructing or otherwise affecting the HSR system. Historically, train derailments in the U.S. have generally occurred where there is special trackwork, such as turnouts or crossovers, or where a rail network may not have been adequately maintained to the authorized speed. Safety considerations regarding proximity of the HSR line to other transportation facilities, including other railroads or highways, are also incorporated into project design (**SS-IAMF#3**).

Another design feature of an HSR system is to contain trainsets within the right-of-way. Strategies to ensure containment include operations and maintenance plan elements that would ensure high-quality tracks and vehicle maintenance to reduce the risk of derailment. Also, physical elements, such as containment parapets, check rails, guard rails, and derailment walls, would be used in specific areas with a high risk of or high impact from derailment. These areas include elevated guideways and approaches to conventional rail and roadway crossings. Concrete derailment walls are like tall curbs that run close to the train wheels. In the event of a derailment, these walls keep the train upright and within the right-of-way.

Collision Risk at At-Grade Crossings

Collisions could result in casualties for HSR passengers and crew involved in rail-related accidents. Roadways and railroads are fully grade separated from existing railroad tracks throughout the majority of the LOSSAN Corridor. Shared Passenger Track Alternative A would maintain these existing grade separations and, therefore, there would be no risk of rail-related incidents. Five existing at-grade crossings in Santa Fe Springs and Anaheim[22] would be replaced by fully grade-separated crossings (possibly as early action projects).

A sixth at-grade crossing (at Lakeland Road) would be partially grade separated for HSR and passenger rail and would not require vertical realignment, as the shared tracks would cross over the roadway on a new bridge with the freight tracks remaining at grade. The two new tracks to accommodate HSR service would be on an aerial structure at its crossing with Lakeland Road. The existing freight railroad crossing at Lakeland Road would remain at grade. HSR trains would

[21] The Preliminary Engineering for Procurement defines a level of design required for the procurement of final design and construction services for the project under a Design-Build Strategy.
[22] At Pioneer Boulevard, Norwalk Boulevard, Los Nietos Road, Cerritos Avenue, and State College Boulevard.

not cross Lakeland Road at grade; therefore, HSR rail-related incidents at at-grade roadway-railroad crossings would not occur. Detailed plans of barrier type and installation details will be determined during the Preliminary Engineering for Procurement design phase and coordination with the corridor stakeholders.

Shared Passenger Track Alternative A would retain eight existing at-grade roadway-railroad crossings in Anaheim.[23] Between 2008 and 2018, no rail-related incidents occurred at four of these at-grade crossings (Broadway, Santa Ana Street, Vermont Avenue, and Ball Road). Two rail-related incidents occurred at the Orangethorpe Avenue crossing, one (2008) involving a pedestrian and the other a vehicle (2018). Three incidents involving pedestrians occurred at the La Palma Avenue roadway-railroad crossing in Anaheim: two in 2010 and one in 2013. One rail-related incident involving a vehicle occurred at the South Street crossing in 2017. One incident involving a cyclist occurred at the Sycamore Street crossing in 2016, resulting in a fatality.

Operation of HSR trains through the at-grade crossings in Anaheim could increase the potential for rail-related incidents involving vehicles, bicycles, or pedestrians crossing the right-of-way at the at-grade crossings. These existing at-grade crossings have already been upgraded with quiet zone infrastructure by the City of Anaheim and Orange County Transportation Authority, meaning they have safety improvements such as quadrant gates and medians. HSR would not modify the crossing infrastructure.

The Authority's programmatic preliminary hazard analyses are developed in conformance with the FRA's *Collison Hazard Analysis Guide: Commuter and Intercity Passenger Service* (FRA 2007) and the U.S. Department of Defense's *Standard Practice: System Safety* (MIL-STD-882E) to identify and determine the facility hazards and vulnerabilities so that they can be addressed and either eliminated or reduced by the design. PTC would alert the operator to the presence of inert objects, such as derailed freight trains, and stop HSR operations to avoid collisions. As mentioned in Section 3.11.2.1, the Rail Safety Improvement Act of 2008 required the deployment of PTC technology across most railroad systems by December 31, 2018; PTC would be deployed prior to operation of communication towers and ancillary facilities would be included in the project section to comply with the FRA PTC requirements. PTC infrastructure consists of integrated command, control, communications, and information systems for controlling train movements that improve railroad safety by reducing the potential for collisions between trains, casualties to roadway workers and equipment, and overspeed accidents. Refer to Chapter 2 for more background on PTC infrastructure.

System program plans would incorporate FRA requirements and would be put in place on FRA approval. The FRA System Safety Regulation (49 CFR Part 270) would determine the FRA's SSP plan requirements. Rail systems must also comply with FRA requirements for tracks, equipment, railroad operating rules and practices, passenger safety, emergency response, and passenger equipment safety standards found in 49 CFR Parts 200–299.

In addition, the Authority will apply an SSP plan, worker safety standards, and regulatory requirements prior to construction to maintain safety of workers and users of the HSR within the track right-of-way, on board trains, and within stations (**SS-IAMF#2**).

Under **SS-IAMF#3**, during design and construction the Authority-designated contractor will prepare a site-specific preliminary hazard analysis and threat and vulnerability assessment. The Authority will apply the recommendations and control measures to reduce the risk to an acceptable level prior to operations and maintenance of the project (**SS-IAMF#3**).

[23] At Orangethorpe Avenue, La Palma Avenue, Sycamore Street, Broadway Street, Santa Ana Street, South Street, Vermont Avenue, and Ball Road.

Shared Passenger Track Alternative B

With the LMF at 15th Street, permanent exposure to rail-related hazards during operation would be similar to those described for Shared Passenger Track Alternative A.

The 15th Street LMF would be approximately 3 miles from LAUS, resulting in shorter travel times of deadhead moves of HSR trains between LAUS and the LMF. Decreased train travel time to and from LAUS would decrease the potential exposure to rail hazards. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#3**) apply to 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 related to rail hazards would be similar to those described for the Shared Passenger Track Alternatives within the station area. Addition of an optional station could increase the potential for rail-related accidents/incidents related to HSR trains entering and exiting the station, and to increased numbers of workers and passengers near the railroad right-of-way. However, only authorized persons would be permitted access to the HSR right-of-way, HSR facilities, and nonpublic areas of stations. The safety of HSR users would be ensured through the station design, which would include all necessary safety systems and barriers in the station area. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#3**) apply to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts related to rail hazards would be similar to those described for the Shared Passenger Track Alternatives within the station area. Addition of an optional station could increase the potential for rail-related accidents/incidents related to HSR trains entering and exiting the station, and to increased numbers of workers and passengers near the railroad right-of-way. However, only authorized persons would be permitted access to the HSR right-of-way, HSR facilities, and nonpublic areas of stations. The safety of HSR users would be ensured through the station design, which would include all necessary safety systems and barriers in the station area. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#3**) apply to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA from permanent exposure to rail hazards during project operation would be less than significant. **SS-IAMF#2** and **SS-IAMF#3** require operational rail design and safety features, including PTC systems, that will reduce the potential for permanent exposure to rail-related hazards, including incidents and accidents such as derailments and collisions. The impact from permanent exposure to rail hazards during operation would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-14: Permanent Exposure to High-Risk Facilities

Shared Passenger Track Alternative A

Operational activities associated with the project would occur in urban areas in which high-risk facilities (including utilities) are in the safety and security RSAs.

High-risk facilities within the RSAs have the potential to affect project operations. Incidents, such as fires or explosions, from propane, bulk fuel, and bulk chemical storage facilities in industrial areas along the project section, some of which may be adjacent to railroads and highways, could affect project operations. No information is available that indicates whether the high-risk facilities in the RSAs have undergone a catastrophic failure in the past several decades.

Sites identified as potential environmental concern(s) in the RSAs are disclosed and discussed in Section 3.10. These potential environmental concern sites could have contamination of hazardous materials and may contain above- and underground bulk storage tanks or other bulk hazardous material storage on site. Additional analyses for impacts from high-risk potential environmental concern sites are provided in Section 3.10.

There are approximately 260 high-risk utilities that cross or run parallel to the tracks in the project section that would require relocation with construction of Shared Passenger Track Alternative A. High-risk utilities not relocated would be protected in place. Table 3.6-15 in Section 3.6 summarizes high-risk utility conflicts for Shared Passenger Track Alternative A for which relocation would be required.

Relocation of utilities would be subject to **SS-IAMF#2**, which requires preparation of documentation that specifies how the requirements, plan, programs, and guidelines were considered to protect safety and security of construction workers; and would be subject to **SS-IAMF#3**, which requires hazard analysis to be conducted for project section construction, including for relocation of utilities.

Construction of the 26th Street LMF for Shared Passenger Track Alternative A would have the potential for 69 utility conflicts, but none would require relocation; all could be protected in place.

The Authority prepared a preliminary hazard analysis to determine risks to project operations from the presence of oil and gas wells adjacent to the HSR right-of-way. The preliminary hazard analysis assessed the probability and the consequences of the risks with a primary focus on well blowouts. Blowouts occur when a pressurized underground zone is encountered during drilling and the weight of the drilling mud in the wellbore is insufficient to hold back the pressure. A well blowout could result in a spray of crude oil over the surrounding area, the displacement of earth around the wellbore, or a large-scale explosion and fire. There have been no recent incidents from these facilities involving explosions or catastrophic failures that have resulted in off-site injuries or property damage. Additionally, pursuant to **SS-IAMF#3**, the Authority will develop a hazard management plan that will identify hazards and assess associated risk. Control measures to reduce identified risks will be applied, and high-risk utilities that cross or run parallel to the tracks and that are not subject to removal or relocation as part of construction will remain protected in place after completion of construction during operation. Implementation of **SS-IAMF#3** would minimize potential impacts associated with exposure to high-risk facilities.

Shared Passenger Track Alternative B

Construction of the 15th Street LMF would have potential conflicts with an additional 29 utilities compared to Shared Passenger Track Alternative A. Construction of the 15th Street LMF for Shared Passenger Track Alternative B would result in five additional major and high-risk utility conflicts in the city of Los Angeles that would require relocation, compared to Shared Passenger Track Alternative A. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#3**) apply to 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 related to high-risk facilities would be the same as those described for the Shared Passenger Track Alternatives within the station area, which is not in the vicinity of any high-risk facilities. Because the station would be built within the same area that would be modified under the Shared Passenger Track Alternatives, any conflicts with existing utilities would be the same and would be resolved during construction. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#3**) apply to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts related to high-risk facilities would be the same as those described for the Shared Passenger Track Alternatives within the station area, which is not in the vicinity of any high-risk facilities. Refer to Section 3.6 for more information about utility conflicts. The Fullerton HSR Station Option elements would operate on a larger area compared to the Shared Passenger Track Alternatives, but any additional conflicts with existing utilities would be resolved during construction. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#2** and **SS-IAMF#3**) apply to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA on community safety related to permanent exposure to high-risk facilities during project operation would be less than significant. Pursuant to **SS-IAMF#3**, the Authority will develop a hazard management plan that will identify hazards and assess associated risk. Control measures to reduce identified risks will be applied, and high-risk utilities that cross or run parallel to the tracks and that would not be removed or relocated will remain protected in place after completion of construction during operation. The impact from permanent exposure to high-risk facilities during operation would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-15: Permanent Exposure to Oil and Gas Well Hazards

Figures in Appendix 3.10-A depict the oil and gas and water wells present in the RSAs. The California Geologic Energy Management Division data are from December 5, 2023, as plotted on figures in Appendix 3.10-A.

Shared Passenger Track Alternative A

The project section would traverse four oil fields and have 677 oil and gas or water wells present in the RSAs. Figures in Appendix 3.10-A depict the oil and gas and water wells present in the RSA. Figure 3.10-12 in Appendix 3.10-A depicts wells within the project footprint. There are 14 oil wells within the project footprint, 12 of which are plugged or abandoned, and the remaining 2 are idle and buried. Therefore, there are potential risks related to encountering oil wells in the project section during project operation.

SS-IAMF#4 requires that, before starting ground-disturbing activities, the contractor must identify and inspect all active and abandoned oil and gas wells within 200 feet of the HSR tracks. Active wells will be abandoned and relocated in accordance with the California Department of Conservation, Geologic Energy Management Division standards and in coordination with the well owners, thereby reducing the potential for accidents associated with encountering oil or gas wells such as well fires or explosions that could affect the safety of workers, passengers, and the public. Abandoned wells will be re-abandoned if necessary, following the same standards. The contractor must document the inspection and provide it to the Authority before construction begins. Refer to Section 3.10 for additional discussion.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A in terms of permanent exposure to oil and gas well hazards during project operations. For Shared Passenger Track Alternative B, there would be the same number of oil and gas wells present in the RSA. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#4**) applies to 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 described for the Shared Passenger Track Alternatives within the station area in terms of permanent exposure to oil and gas well hazards during project operations. The HSR station elements would be in the same vicinity of the oil fields and oil and gas wells present in the RSA. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#4**) applies to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area in terms of permanent exposure to oil and gas hazards during project operations. The Fullerton HSR Station Option elements would operate on a larger area compared to the Shared Passenger Track Alternatives, but would still be in the same vicinity of the oil fields and oil and gas wells present in the RSA. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#4**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA on community safety related to operational exposure to oil and gas wells would be less than significant. **SS-IAMF#4** will effectively minimize impacts of oil and gas well hazards. The Authority will identify and inspect active and abandoned oil and gas wells within 200 feet of the HSR track prior to commencing construction. Active wells will be abandoned and relocated by the contractor in accordance with the California Department of Conservation, Geologic Energy Management Division standards in coordination with the well owners, thereby reducing the potential for accidents such as fires or explosions associated with encountering oil or gas wells. The impact from operational exposure to oil and gas well hazards would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-16: Potential for Criminal and Terrorist Activity

Shared Passenger Track Alternative A

During operation, trains and stations could be potential targets for criminal activity, such as theft and violence. In addition, terrorists could target HSR tracks, trains, or stations with the intent to inflict mass casualties and disrupt transportation infrastructure. During final project design, the Authority will perform threat and vulnerability assessments to establish provisions for the deterrence and detection of, and protocols for the response to, criminal or terrorist acts involving HSR facilities and system operations.

The Authority will apply the recommendations from the threat and vulnerability assessment during operations. Therefore, the threat and vulnerability assessment would minimize the potential for criminal and terrorist activity (**SS-IAMF#2**). System security plans and an SEPP will be developed prior to operations (**SS-IAMF#2**). These plans address design features and standards and guidelines to maintain security at the station, LMF, within the track right-of-way, and on trains. The SEPP will address TSA and Department of Homeland Security requirements for operation of railroads, including those intended to prevent or minimize potential terrorist threats. The Authority will designate a primary and an alternate security coordinator and will provide TSA with names and contact information for 24-hour/7-days-per-week availability. The security coordinator will have a direct reporting relationship to the Authority chief executive officer regarding matters of rail operations security.

The Authority has established a liaison with the TSA Mass Transit and Rail Department who reports directly to the project operations manager. This liaison has been established to meet all Department of Homeland Security and TSA requirements once the project is complete and to provide coordinated transfer of information concerning security concerns, threats, best practices, and security regulations that may affect rail security during development and implementation of the HSR system and during project operations (Authority 2013b).

Construction design standards and HSR operating systems and procedures include provisions to reduce the potential for and the impacts of terrorism incidents and criminal activity. Project design standards and guidelines require emergency walkways on both sides of the tracks for both elevated and at-grade sections. Adequate space would be present along at-grade sections of the alignment to allow emergency response access and evacuation in the event of a criminal or terrorist act. Ground access would be available for elevated tracks where access to ground equipment is required. Additional ground access would be considered, consistent with fire and rescue procedures. Nonpublic areas of HSR facilities and stations would be access controlled, with only authorized persons permitted access to the HSR facilities. Individually and collectively, these systems would facilitate efficient evacuation of train passengers and employees in the event of a terrorism incident. They would also help deter criminal activity and prevent suicide attempts by deterring and increasing the difficulty for unauthorized persons entering nonpublic areas.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A in terms of criminal and terrorist activity. The routes, stations, and train operations would be the same for both Shared Passenger Track Alternatives, so the potential for exposure to criminal and terrorist activity during

station and train operations would also be the same. The LMF locations would differ for the two Shared Passenger Track Alternatives. The threat and vulnerability assessment conducted under **SS-IAMF#2** for the project will include an assessment of the LMF location and LMF design with respect to criminal and terrorist activity threats. Differences in the location of the LMF would not lead to heightened exposure to criminal or terrorist activity for either alternative because the same design standards and operational standards applied for the LMF under Shared Passenger Track Alternative A would be applied for the LMF under Shared Passenger Track Alternative B. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to 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 related to criminal activities and terrorism would be similar to those described for the Shared Passenger Track Alternatives within the station area. Although there is already the potential for criminal and terrorist activity to occur at this site, because it is (and will continue to be) a passenger rail station, adding in HSR service would result in additional people accessing and passing through the station site. The greater numbers of people would increase the potential targets for criminal activity. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts related to criminal activities and terrorism would be similar to those described for the Shared Passenger Track Alternatives within the station area. Although there is already the potential for criminal and terrorist activity to occur at this site, because it is (and will continue to be) a passenger rail station, adding in HSR service would result in additional people accessing and passing through the station site. The greater numbers of people would increase the potential targets for criminal activity. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA on community safety related to potential criminal and terrorist activity during project operation would be less than significant. Pursuant to **SS-IAMF#2**, the Authority will perform threat and vulnerability assessments that will establish provisions for the deterrence and detection of, and protocols for the response to, criminal or terrorist acts involving HSR facilities and system operations. The contractor will apply control measures to reduce the potential risk for criminal and terrorist activity. The impact related to potential criminal and terrorist activity during operation would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-17: Need for Expansion of Existing Fire, Rescue, and Emergency Services Facilities

Shared Passenger Track Alternative A

The design characteristics of the project would minimize the potential for rail accidents and rail incidents. Shared Passenger Track Alternative A would fully grade separate five existing at-grade crossings and partially grade separate another at Lakeland Road. As a result, project operations would not likely increase the frequency of incidents with motor vehicles, pedestrians, bicyclists, or other trains such that the demand for emergency services would increase. Emergency response to rail incidents (i.e., those not involving property damage) would be similar to existing emergency response services for such incidents. The fire departments, types of equipment operated, staffing, and average response times in the safety and security RSAs are summarized in Table 3.11-4, and the locations of the fire stations are included on Figure 3.11-5, sheets 1 through 4, and in Appendix 3.11-A, Table 3.11-A-2. As discussed in Impact SS-12, increases in emergency response times may occur because of increased gate-down times at the retained at-grade rail crossings (STV 2025a). However, response times would still be within the City of Anaheim's response goals, and the potential delays would not result in inadequate or impaired emergency response, such that expansion of emergency service facilities would be necessary.

For emergency preparedness, the Authority will collaborate with local responders to develop a Fire and Life Safety Program in the event of a rail accident or rail incident or other emergency. This requires preparation of documentation that shows how the requirements, plan, programs, and guidelines were considered to protect safety and security of construction workers and users of the HSR with **SS-IAMF#2**. Additionally, the City of Anaheim began construction of a new fire station near ARTIC with expected completion in mid-2026. The Anaheim Fire and Rescue station will be at 1822 S State College Boulevard, south of Katella Avenue. This station could improve emergency vehicle response times in portions of the project section (City of Anaheim 2025b).

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be similar to those described for Shared Passenger Track Alternative A in terms of additional need for fire, rescue, and emergency services facilities during operation. The alternatives differ only in the LMF site, would be similar in terms of LMF operations, and would be subject to similar safety systems and similar procedures for emergency planning and incident response. Therefore, impacts are expected to be similar for both alternatives and there would be no additional need for expanded emergency services beyond what is discussed for Shared Passenger Track Alternative A. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to 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 related to additional need for fire, rescue, and emergency services facilities would be the same as those described for the Shared Passenger Track Alternatives within the station area. Operation of the HSR station option is not expected to result in an increase in the need for local response to accidents and incidents. Addition of HSR stations would introduce additional activity centers into urban areas. Revitalization near the Norwalk/Santa Fe Springs HSR Station Option could follow the Norwalk/Santa Fe Springs site development and building permitting processes, including the payment of impact fees that support capital costs for new or expanded government facilities. As described in Section 3.13, the associated development and economic activity that would indirectly result from the addition of HSR station options could increase demand for local emergency responders and require new or physically altered government facilities (such as police or fire stations) that might affect the environment. New or expanded government facilities would be designed and built to be consistent with local land use plans and would be subject to separate site-specific analysis under CEQA.

The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts related to additional need for fire, rescue, and emergency services facilities would be the same as those described for the Shared Passenger Track Alternatives within the station area. Operation of the HSR station option is not expected to increase the need for local response to accidents and incidents. Addition of HSR stations would introduce additional activity centers into urban areas. Revitalization near the Fullerton HSR Station Option could follow the Fullerton site development and building permitting processes, including the payment of impact fees that support capital costs for new or expanded government facilities. As described in Section 3.13, the associated development and economic activity that would indirectly result from the addition of HSR station options could increase demand for local emergency responders and require new or physically altered government facilities (such as police or fire stations) that might affect the environment. New or expanded government facilities would be designed and built to be consistent with local land use plans and would be subject to separate site-specific analysis under CEQA.

The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA related to additional need for fire, rescue, and emergency services facilities during project operations would be less than significant and does not require mitigation. Operation of the Shared Passenger Track Alternatives would not result in significant emergency response delays that would require the need for new or expanded facilities. Increase in emergency vehicle response times would be reduced through Authority collaboration with local responders to develop a Fire and Life Safety Program in the event of a rail accident, rail incident, or other emergency (**SS-IAMF#2**), effectively reducing the need for additional or expanded services. The addition of a new fire station in Anaheim would further minimize this need.

Impact SS-18: Permanent Safety Hazards to Schools

Shared Passenger Track Alternative A

As presented in Table 3.11-11, there are 40 educational facilities within 0.25 mile of the Shared Passenger Track Alternative A footprint.

In the event of a train accident during operation of Shared Passenger Track Alternative A, including derailment of a train during a seismic event or natural disaster, a safety hazard to educational facilities could occur if the train were to leave the HSR right-of-way and collide with other structures, including schools, or with people on adjacent properties. California Code of Regulations 14010 provides siting standards for new schools. California Code of Regulations 14010c calls for a separation between schools and the outside edge of a power transmission line easement to be 100 feet for 50-kV to 133-kV lines, 150 feet for 220-kV to 230-kV lines, and 350 feet for 500-kV to 550-kV lines. The HSR system would be powered by a 25-kV system; therefore, the transmission lines associated with the project would be akin to overhead transmission lines in neighborhoods and would be a negligible safety hazard to educational facilities. California Code of Regulations 14010d requires a safety study for new school sites within 1,500 feet of a railroad track easement for trains carrying passengers or cargo. Because the California HSR System would carry passengers and be electric powered, there would be no safety hazard associated with cargo (such as fuel).

Section 2.4.7 in Chapter 2 provides a detailed discussion of the train safety system used in this project section. Trains would be controlled by a computer-based, enhanced PTC system. The PTC system would reduce the potential for derailments and thereby the potential for trains or parts thereof to affect a school structure. The enhanced PTC system would comply with FRA-mandated PTC requirements, including safe separation of trains, overspeed prevention, and work zone protection. The PTC system, natural event detection system, and inspection and maintenance programs would reduce the potential for derailments and thereby the potential for derailed trains to affect a school structure.

Project design would include safety elements, which would be used in specific areas with a high potential for occurrence of derailment or high impact from occurrence of derailment. These areas would include elevated guideways (where operating trains would be above structures on the ground) and approaches to conventional rail and roadway crossings where a derailed train could enter another transportation right-of-way. Prior to project construction, the Authority or its contractor will conduct a Preliminary Hazard Assessment (**SS-IAMF#3**) that will identify potential derailment hazards and will apply measures to reduce the incidence and consequences of derailments, including application of design features (e.g., barriers) to minimize the potential for a derailed train to leave the guideway and affect school structures or individuals outside of the right-of-way. In accordance with **GEO-IAMF#10**, the Authority will prepare a technical memorandum documenting how specific guidelines and standards have been incorporated into facility design and construction, including standards for seismic hazards. In accordance with **GEO-IAMF#8**, HSR service will be suspended when an earthquake is detected by the HSR system to provide safety and security for schools within 0.25 mile of the project.

Shared Passenger Track Alternative B

With the LMF at 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A in terms of continuous safety hazards to educational facilities. There are no different or additional educational facilities within

the RSA for Shared Passenger Track Alternative B, compared to Shared Passenger Track Alternative A. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#3**, **GEO-IAMF#10**, and **GEO-IAMF#8**) apply to 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 described for the Shared Passenger Track Alternatives within the station area, because the same number of educational facilities would be within 0.25 mile. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#3**, **GEO-IAMF#10**, and **GEO-IAMF#8**) apply to the Norwalk/Santa Fe Springs HSR Station Option.

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, because the same number of educational facilities would be within 0.25 mile. The same IAMFs listed for Shared Passenger Track Alternative A (**SS-IAMF#3**, **GEO-IAMF#10**, and **GEO-IAMF#8**) apply to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA on schools related to continuous permanent safety hazards during project operation would be less than significant. Pursuant to **SS-IAMF#3**, the Authority will prepare a hazard management plan that will identify hazards and assess associated risk. The Authority will apply control measures to reduce or avoid identified risks. **GEO-IAMF#10** is included for the Authority to prepare a technical memorandum documenting how specific guidelines and standards have been incorporated into facility design and construction, and **GEO-IAMF#8** is included to require HSR service to be suspended when an earthquake is detected by the HSR system. The impact of continuous permanent safety hazards to schools would be less than significant under CEQA and therefore does not require mitigation.

Impact SS-19: Wildfire Hazards

Shared Passenger Track Alternative A

The project section would not traverse State Responsibility Areas or Local Responsibility Areas in Los Angeles County or Orange County that are categorized as high or very high hazard fire zones or as wildlands. The California Department of Forestry and Fire Protection provides wildfire hazard potential ratings for California. Within Los Angeles County and Orange County where the project section would be situated, a few locations have wildfire hazard potentials that range from moderate to very high, as depicted on Figure 3.11-6 and Figure 3.11-7 (CAL FIRE 2011a, 2011b, 2024). However, these areas are not crossed by the project section. Because the project section would not be built in a fire hazard severity zone within State Responsibility Areas, a very high fire hazard severity zone within Local Responsibility Areas, or a wildland-urban interface fire area, the risk of wildfire hazard would be minimized during construction and operation.

During operations, given the lack of combustible fuels and low volume of flammable materials associated with operations of an HSR system and project design, the permanent exposure of the public, passengers, or employees to wildfire hazards, including wildland fires, would be minimized.

The Authority will develop and incorporate fire and life safety programs into the design, construction, and operation of Shared Passenger Track Alternative A (**SS-IAMF#2**). The Authority would form a statewide Fire and Life Safety and Security Committee composed of representatives from fire, police, and local building code agencies (Authority 2013a). The purpose of the Fire and Life Safety and Security Committee would be to review issues that are critical to fire and life safety and security, to acquire input and concurrence from the state and local authorities having jurisdiction over the proposed designs to meet code requirements, and to comply with state and local fire code standards or fire and life safety hazard mitigation measures during the design phase. The fire and life safety program would include regional Fire and Life Safety and Security Committees that would focus on the fire and life safety characteristics

specific to each project section, including below-grade and elevated structures, access methods, terminals, and maintenance facilities, to provide input on local building codes or requirements that are in line with the emergency response characteristics and capabilities of the local agencies. Representation and operation of the statewide and regional Fire and Life Safety and Security Committees would be coordinated with local emergency response organizations to provide an understanding of the HSR system, facilities, and operations, and to obtain their input for modifications to emergency response operations and facilities. These programs and coordination activities would allow for rapid response by local emergency responders in the case of an accident, reducing the potential for uncontrolled wildfire events.

Shared Passenger Track Alternative B

With the LMF on 15th Street, impacts for Shared Passenger Track Alternative B would be the same as those described for Shared Passenger Track Alternative A in terms of exposure to wildfire hazards during construction and operation because the project alignment is the same for both alternatives. The 15th Street LMF location under Shared Passenger Track Alternative B would not be within State Responsibility Areas or Local Responsibility Areas categorized as high or very high hazard fire zones or areas categorized as wildlands or wildland-urban interface areas. Therefore, the risk of wildfire hazard would be the same as along the project alignment. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to 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 described for the Shared Passenger Track Alternatives within the station area with respect to exposure to wildfire hazards. The Norwalk/Santa Fe Springs HSR Station Option would not be within State Responsibility Areas or Local Responsibility Areas categorized as high or very high hazard fire zones or areas categorized as wildlands or wildland-urban interface areas. Operational activities that would occur at the HSR station option site would not create a risk of wildfire. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Norwalk/Santa Fe Springs HSR Station Option.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives within the station area with respect to exposure to wildfire hazards. The Fullerton HSR Station Option would not be within State Responsibility Areas or Local Responsibility Areas categorized as high or very high hazard fire zones or areas categorized as wildlands or wildland-urban interface areas. Operational activities that would occur at the HSR station option site would not create a risk of wildfire. The same IAMF listed for Shared Passenger Track Alternative A (**SS-IAMF#2**) applies to the Fullerton HSR Station Option.

CEQA Conclusion

The impact under CEQA on community safety from wildfire hazards during construction and operation of the Shared Passenger Track Alternatives would be less than significant with inclusion of **SS-IAMF#2** that includes the development and incorporation of fire and life safety programs into the design, construction, and operation of the Shared Passenger Track Alternatives. The Shared Passenger Track Alternatives would not be built in a fire hazard severity zone within State Responsibility Areas, a very high fire hazard severity zone within Local Responsibility Areas, or a wildland-urban interface fire area, and the risk of fires during project construction would be minimized. Construction of the Shared Passenger Track Alternatives would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Operation of the Shared Passenger Track Alternatives would include elements (e.g., HSR electrical systems, stations, railbeds) that could increase the potential for wildfires and wildland fires. Although HSR trains would not carry fuel or large quantities of flammable materials, there would be an inherent fire hazard during operations from electrical systems. With the application of

the fire and life safety programs and the coordination of the Fire and Life Safety and Security Committee (**SS-IAMF#2**), this risk would be effectively minimized and project operation would not elevate fire risks or expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving fire or wildland fires. Therefore, the incremental increase in fire hazard from operation of the Shared Passenger Track Alternative would be minimized.

The impact from wildfire hazards would be less than significant under CEQA and therefore does not require mitigation.

3.11.7 Mitigation Measures

The Authority has identified the following safety and security mitigation measure for impacts under NEPA and significant impacts under CEQA that cannot be adequately avoided or addressed by IAMFs. Mitigation measure **HMW-MM#2** (applicable to Impact SS-3) is discussed in Section 3.10.7.

3.11.7.1 SS-MM#1: Implement Emergency Response Time Mitigation Strategies

Prior to the start of HSR operations, the Authority will coordinate with the City of Anaheim to conduct monitoring of emergency response vehicle trips through the eight at-grade crossings in Anaheim and implement emergency vehicle priority treatment strategies where impacts are identified. The monitoring will establish baseline travel times through the at-grade crossings, as well a baseline frequency and duration during which emergency vehicles are stopped at gate-down events per day. Travel time data will be collected for a 1-mile section of the at-grade crossing street (i.e., 0.5 mile on either side of the at-grade crossing) during weekday peak periods (7 a.m. to 9 a.m. and 4 p.m. to 6 p.m.). The cumulative time per day that an emergency vehicle is stopped at a gate-down event will also be collected. Data will be collected on 12 days during each monitoring year from Tuesday to Thursday over a 2-week period in early May and early October. Data will be collected at the following intervals:

- 1 year prior to initiation of new HSR service; based on this monitoring, the Authority will determine baselines for emergency response in coordination with the City of Anaheim.
- Monthly for the first 6 months of initial operations and annually thereafter for 3 years, to identify changes in emergency response caused by HSR trains passing through the at-grade crossings.

An emergency vehicle priority treatment plan will be developed for at-grade crossing locations where travel times and the cumulative time per day where emergency vehicles are stopped exceed the baselines established in coordination with the city. The emergency vehicle priority treatment plan will include mitigation strategies such as, but not limited to, the following:

- Installation of or upgrades to emergency vehicle signal preemption systems at intersections
- Implementation of real-time gate status communication systems that integrate with emergency dispatch to notify responding units of active gate closures at the at-grade crossings in Anaheim, enabling real-time rerouting and minimizing signal wait times
- Enhancement of interagency dispatch coordination protocols among existing and proposed Anaheim Fire and Rescue stations, enabling flexible dispatch from stations on the same side of the railroad corridor, particularly for overlapping service areas

The monitoring data would determine the Authority's fair-share contribution to the treatment plan strategies. As an alternative to the listed strategies, the Authority and a local agency may reach a mutual agreement to have the Authority make an in-lieu payment toward other projects. The in-lieu payment will be the fair-share capital contribution that the Authority would have otherwise made to one or more of the above emergency vehicle priority treatment strategies.

3.11.7.2 Impact of Mitigation

Implementation of **SS-MM#1** would result in improvement of emergency vehicle response time. Implementation of **SS-MM#1** would potentially involve installation of communications systems,

signage, and signals by construction workers. Construction worker activities for implementation of **SS-MM#1** would be subject to the same safety-related IAMFs as construction for avoidance and minimization of construction hazards. Safety-related impacts of **SS-MM#1** implementation would be less than significant.

3.11.7.3 Early Action Projects

The Authority has committed to investing in regionally important early action projects to provide early benefits to transit riders and local communities. These projects are detailed in Chapter 2. An early action project is a regionally important connectivity project that provides early benefits to transit riders and local communities and lays a solid foundation for the HSR system and has the potential to create impacts. Design characteristics for early action projects include IAMFs to comply with FRA guidelines and minimize impacts. This Draft EIR/EIS includes the environmental analysis of the five new railroad/roadway grade separations as early action projects. Grade-separation work could include roadway profiling and striping, utility relocation, and structural work. Implementation of grade separations would improve safety by removing at-grade crossings.

Other early action projects include relocations of the existing Commerce and Buena Park Metrolink Stations, modifications to two BNSF yards, and modifications at the existing Fullerton Metrolink/Amtrak Station. These early action projects would involve temporary road closures that would be subject to the same IAMFs as for the project that would minimize impacts. The relocated Commerce and Buena Park Metrolink Stations would still be in proximity to nearby emergency response facilities, and would not result in impacts related to emergency access. For example, the relocated Buena Park Station would be approximately 0.1 mile farther from the closest fire station and 0.3 mile farther from the closest police station than the existing station and would be approximately 0.8 mile closer to the nearest hospital than the existing station. Modifications to the two BNSF yards would include permanent road closures, but they would not affect emergency access

Construction site hazards for all early action projects would be similar to those for project construction and would be subject to the same IAMFs as for the project that would minimize impacts. Overall, the early action projects would improve rail safety by eliminating at-grade crossings through grade separations, enhancing track and station infrastructure to support safer and more efficient operations, and reconfiguring freight facilities to reduce rail conflicts and associated operational hazards. Early action projects would therefore result in a beneficial impact on rail safety during operations.

Construction of early action projects would be subject to construction health and safety standards and guidelines similar to those that would be applied to construction of the Shared Passenger Track Alternatives, minimizing potential for exposure to construction hazards. Temporary road closures and relocations related to early action projects would be subject to the same IAMFs as for the Shared Passenger Track Alternatives. Therefore, no safety and security mitigation measures specific to early action projects would be required.

3.11.8 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 the No Project Alternative, the project would not be built.

3.11.8.1 No Project Alternative

Under the No Project Alternative, recent development trends in the project section are anticipated to continue. Employment in the RSAs would continue to grow through 2040, but population would decrease slightly in the RSAs through 2040, primarily in Los Angeles County. This would lead to residential and commercial growth throughout the counties that is anticipated to affect safety and security resources. It is anticipated that increased vehicular traffic volumes would correspond with an increase in traffic accidents in which injuries and fatalities could occur. Currently planned roadway capacity expansions would improve operations but would not completely alleviate

congestion that would result from anticipated growth. These programmed roadway projects would incorporate design features that would reduce, but would not completely avoid, the potential for traffic accidents. For these reasons, existing vehicle accident rates would continue at current rates into the future for the No Project Alternative.

Under the No Project Alternative, the demand for law enforcement, fire, and emergency services would coincide with the anticipated shifts in population (with both growth and population decreases anticipated) and law enforcement, fire, and emergency services needs of planned industrial, residential, and commercial developments. Demand for services would increase concomitant with expansion of development and of the transportation system. Expansion of development and the transportation network under the No Project Alternative could result in increased incidence of crime. However, crime rates would also depend on future economic conditions and a variety of other factors. Planned development and transportation projects would likely include various forms of mitigation to address impacts of development and transportation projects on demand for services that would reduce the impacts on safety and security.

3.11.8.2 Shared Passenger Track Alternatives

Construction of the Shared Passenger Track Alternatives could result in temporary and permanent impacts on safety and security, as discussed below.

- **Impact SS-1:** Construction would result in temporary and permanent interference with emergency response times. Emergency vehicles may encounter delays while accessing construction sites, particularly sites where roadway grade is being raised or lowered on roadways crossing the project section. IAMFs are included as project design features such as **SS-IAMF#1**, **TR-IAMF#2**, **TR-IAMF#6**, and **TR-IAMF#8**. Under **SS-IAMF#1** and **TR-IAMF#2**, detours will be configured to maintain emergency vehicle access and reduce emergency response time delays in accordance with the CSTMP. Under **SS-IAMF#1**, the Authority will prepare a CSTMP that will describe the Authority's coordination efforts with local jurisdictions for maintaining emergency vehicle access during construction and that will specify the Authority's procedures for temporary road closures. **TR-IAMF#6** will limit construction-related vehicle trips during peak travel periods to minimize impacts on traffic on roadways. **TR-IAMF#8** requires the Authority to provide a mechanism to prevent roadway construction activities from reducing roadway capacity during special events.
- **Impact SS-2:** Project construction would not impair the implementation of or physically interfere with emergency response times from permanent road closures and modifications for the Shared Passenger Track Alternatives. Emergency access is expected to improve and result in a benefit because of five new full grade separations and one new partial grade separation. Overall, permanent modifications would maintain the existing roadway network and would not affect emergency response times.
- **Impact SS-3:** Construction would result in temporary exposure of construction workers to construction site hazards including safety hazards associated with operation of heavy equipment. Exposure to temporary construction hazards would be reduced because safety plans, design standards, and project design features including IAMFs such as development of a CSTMP under **SS-IAMF#2**. Project construction would require construction activities to take place adjacent to the Fullerton Municipal Airport and under **SS-IAMF#5**, the Authority will ensure FAA requirements, including conformance to Federal Aviation Regulation Part 77 notification requirements, are met. The Shared Passenger Track Alternatives will also incorporate **HMW-IAMF#1**, requiring Phase I and, where necessary, Phase II Environmental Site Assessments during property acquisition, along with additional preconstruction investigations and measures to control site contamination; **HMW-IAMF#3**, requiring installation of work and vapor barriers; **HMW-IAMF#4**, managing known, suspected, and unanticipated environmental contamination; **HMW-IAMF#6**, implementing a spill prevention and response plan; **HMW-IAMF#9**, minimizing risks of accidental releases; and **GEO-IAMF#3**, requiring gas monitoring. These project features will minimize impacts from

hazardous materials. Greater detail on the hazardous materials and waste IAMFs is documented in Section 3.10.4.2.

- Because of the extensive nature of potential impacts associated with the two Superfund sites—the Exide Site in Vernon and the North Basin site in Orange County (further discussed in Section 3.10)—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 and B, as with the Fullerton HSR Station Option. These sites are being monitored and remediated under the purview of the California Department of Toxic Substances Control 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 with the two sites, and engagement with interested parties at specific design milestones, impacts would be reduced but would remain adverse.
- **Impact SS-4:** Criminal activity at and around alternative construction sites could include theft of equipment and materials or vandalism, acts that would not be substantially different from what occurs at other large sites. Security for and access to facilities during construction would be for authorized persons only, deterring criminal activity at construction sites under an SSMP that will be implemented by the contractor prior to commencement of construction as part of **SS-IAMF#2**. This IAMF will also include security lighting, fencing, and monitoring measures to provide security to construction sites and protect the security of construction workers and equipment to minimize impacts and deter unauthorized access.
- **Impacts SS-5 and SS-6:** Construction would result in an impact on motorists, bicyclists, and pedestrians from exposure to traffic hazards resulting from temporary road closures and relocations and operation of construction vehicles and equipment. There would be a reduction in permanent exposure to traffic hazards with five grade crossings being permanently grade separated, eliminating vehicle-rail conflicts and improving safety. Partial grade separation at Lakeland Road would similarly reduce risks by elevating HSR and passenger trains over the roadway. Project design would include effective safety plans, and project features including **SS-IAMF#1**, which will reduce temporary exposure to traffic hazards during construction. **TR-IAMF#12** will minimize impacts on pedestrian and bicycle accessibility and safety across the HSR corridor, to and from stations, and on station property. The Authority will prepare a detailed construction transportation plan with **TR-IAMF#2** and work to minimize the impact on pedestrian access with **TR-IAMF#4**, bicycle access with **TR-IAMF#5**, and transit access with **TR-IAMF#11** during the construction period to minimize impacts.
- **Impact SS-7:** Additionally, there are closed landfills within 0.25 mile of the project section that could result in impacts related to landfill hazards, such as exposure to methane gas. Incorporation of **HMW-IAMF#2** and **GEO-IAMF#3** for the project will reduce the impacts from landfill hazards.
- **Impact SS-8:** The project section would traverse oil fields and oil and gas or water wells are present in the RSAs. Construction workers that work near these oil wells could potentially be exposed to occupational hazards from oil well releases. **SS-IAMF#4** requires abandonment and relocation of active wells within 200 feet of the project centerline in accordance with California Department of Conservation, Geologic Energy Management Division requirements and **GEO-IAMF#3** requires monitoring for subsurface gases and use of explosion-proof equipment during project construction in areas where explosion hazards exist. Both measures will be incorporated 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**. Active wells will be abandoned and relocated and in coordination with the well owners with **SS-IAMF#4**, reducing the potential for accidents associated with encountering oil

or gas wells. A spill prevention and response plan will be prepared under **HMW-IAMF#6**, and management of landfill hazards will occur under **HMW-IAMF#2**.

- **Impact SS-9:** Construction would have no impact on community safety from exposure of construction workers and the public to Valley fever from temporary ground-disturbing activities. Operation of vehicles and equipment on unpaved roads during construction could result in exposure to the fungus that leads to Valley fever will effectively be minimized through a fugitive dust control plan with **AQ-IAMF#1** and an SSMP under **SS-IAMF#2**, with a plan, programs, and guidelines to protect safety and security of construction workers and HSR users.
- **Impact SS-10:** Construction is not expected to interfere with aviation services. To address the potential of any disruption of airfield and airspace operations at these aviation facilities from construction and operation of the HSR, **SS-IAMF#2** includes procedures for protection of high-risk facilities within the project footprint and **SS-IAMF#5** requires the Authority to submit designs and information to FAA per 14 CFR Part 77, to ensure that permanent HSR features within and adjacent to the boundary of these facilities do not intrude into imaginary surfaces as defined in 14 CFR Part 77.9(b).

  Construction of the project section would be incompatible with the *Airport Environs Land Use Plan for Fullerton Municipal Airport*, because construction of the project section would occur within the Fullerton Airport RPZ and construction of rail lines is not an authorized land use within the RPZ. All new projects and proposed development within an RPZ must be vetted and approved by FAA. Construction within the RPZ would be subject to review during FAA review of the project section.

Operation of the Shared Passenger Track Alternatives could result in permanent impacts on safety and security, as discussed below.

- **Impact SS-11:** Operation of the Shared Passenger Track alternatives would not result in permanent interference with emergency access, because project design includes provisions for emergency service access to the access-controlled portions of the right-of-way. **SS-IAMF#2** will be incorporated, which will provide for an SSMP and an SEPP to coordinate emergency services support effective response during incidents. The Fullerton and Norwalk/Santa Fe Springs HSR Station Options and the 15th Street LMF would also maintain emergency access and any impacts would be minimized with both project design features.
- **Impact SS-12:** Operation could result in delays to emergency response times. The project would retain eight existing at-grade crossings in Anaheim, leading to increased gate-down events, up to four per hour, because of added HSR train frequency. Although no new at-grade crossings would be introduced, the increased frequency of gate-down events could delay emergency response vehicles either by requiring them to wait at closed gates or detour to alternate routes. A screening analysis identified limited areas on the eastern side of the corridor, particularly near Anaheim Fire Station #1, where delays up to 65 seconds could occur. With the Fullerton HSR Station Option, slower train speeds would increase gate-down durations, potentially causing delays of up to 117 seconds. To address this, **SS-MM#1** would be implemented, requiring the Authority to monitor response times at the start of HSR operations and coordinate with Anaheim Fire and Rescue to apply targeted improvements such as emergency signal preemption upgrades, real-time gate status alerts, and enhanced interagency dispatch protocols. With these measures, the impact would be reduced. For impacts related to queueing, the addition of HSR trains would increase the total number of gate-down times per day, but would not exacerbate any existing queueing scenarios. Incorporation of **TR-IAMF#13** would ensure that future passenger rail schedules are coordinated so that there would not be traffic queues from combined passenger rail gate-down sequences.
- **Impact SS-13:** Operation would result in permanent impacts related to exposure to rail-related hazards. HSR passengers, HSR employees, and the public would be exposed to safety hazards related to potential derailments and collisions and other types of rail accidents

and rail incidents involving operation of the HSR. Impacts would be reduced because project design would include safety systems including PTC systems that would reduce the potential for derailments. Plans developed as project design measures under **SS-IAMF#2,** providing for an SSMP and an SEPP, and **SS-IAMF#3**, which requires identification of hazards, assessment of associated risk, and application of control measures, will reduce the potential for rail-related accidents.

- **Impact SS-14:** Operation could result in permanent impacts on HSR passengers and HSR employees related to exposure of HSR operations to high-risk facilities and tall structure hazards. Impacts would be reduced with the inclusion of **SS-IAMF#2,** providing for an SSMP and an SEPP, and **SS-IAMF#3**, which requires identification of hazards, assessment of associated risk, and application of measures to reduce the risk to an acceptable level.
- **Impact SS-15:** Operational exposure to oil and gas wells would be reduced with **SS-IAMF#4**, because the Authority will identify and inspect wells within 200 feet of the HSR track and require that active wells be abandoned and relocated in accordance with state standards and in coordination with the well owners, thereby reducing the potential for exposure during operations.
- **Impact SS-16:** Operation could result in permanent impacts on HSR passengers, HSR employees, and the public related to criminal and terrorist activities affecting the HSR trains, track, stations, and maintenance facilities. The impact on the public and employees would be reduced because project design would include effective measures to reduce the potential for theft, violence, and terrorism during operation of HSR trains, stations, and other fixed facilities. System security plans and an SEPP will be developed prior to HSR operations (**SS-IAMF#2**).
- **Impact SS-17:** Operation could result in potential for railroad-related accidents in the project section. Project design characteristics would minimize the potential for rail accidents and rail incidents. As a result, project operations would not likely increase the frequency of incidents with motor vehicles, pedestrians, bicyclists, or other trains such that the demand for emergency services would increase. Emergency response to rail incidents (i.e., those not involving property damage) would be similar to existing emergency response services for such incidents. For emergency preparedness, the Authority will collaborate with local responders to develop a Fire and Life Safety Program in the event of a rail accident, rail incident, or other emergency. This requires preparation of documentation that shows how the requirements, plan, programs, and guidelines were considered to protect safety and security of construction workers and users of the HSR with **SS-IAMF#2**. Additionally, the City of Anaheim began construction of a new fire station near ARTIC with expected completion in mid-2026. The Anaheim Fire and Rescue station will be at 1822 S State College Boulevard, south of Katella Avenue. This station could improve emergency vehicle response times in portions of the project section (City of Anaheim 2025b).
- **Impact SS-18:** Operation of Shared Passenger Track Alternative A could result in a safety hazard if the train were to leave the HSR right-of-way and collide with other structures, including educational facilities. Through application of safety measures in **SS-IAMF#3**, which requires identification of hazards, assessment of associated risk, and application of control measures to reduce the risk to an acceptable level; **GEO-IAMF#10**, which requires a technical memorandum on how design and construction of the facility incorporate applicable guidelines and standards, including those addressing seismic hazards; and **GEO-IAMF#8**, where HSR service will be automatically suspended when an earthquake is detected to ensure safety, including for schools within 0.25 mile of the project, impacts on schools would be reduced.
- **Impact SS-19:** No project areas are within moderate to very high fire hazard severity zones, or wildland, and the risks of fires during operations would be low.

Table 3.11-14 provides a comparison of potential impacts of the project alternatives followed by a summary of the impacts.

Table 3.11-14 Comparison of Project Alternative Impacts on Safety and Security

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			
									With Inclusion of HSR Station Option	
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	Norwalk/Santa Fe Springs	Fullerton
Impact SS-1: Increased Response Times for Fire, Rescue, and Emergency Services from Temporary Road Closures	Construction would result in temporary, short-term impacts on traffic flow, circulation, and access during the construction phase, but these impacts are expected to be intermittent and geographically dispersed based on phasing and segment-specific activities. Emergency vehicle access for police and fire protection services would be maintained at all times, and closures would be phased to prevent concurrent closures for limiting emergency access. Project design features including a CSTMP and construction transportation plan will effectively minimize impacts of project construction on emergency response times.	Similar to Shared Passenger Track Alternative A. Shared Passenger Track Alternative B would have an additional roadway modification at the 15th St LMF site, where a small portion of 16th St would be closed, which would result in temporary road closures that could affect response time. As with Shared Passenger Track Alternative A, a detailed construction transportation plan will be developed to minimize the impacts in combination with detours to maintain emergency vehicle access and reduce emergency response time delays in accordance with the CSTMP.	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 SS-2: Increased Response Times for Fire, Rescue, and Emergency Services from Permanent Road Closures and Permanent Roadway Changes	Permanent roadway modifications would not result in increased response times for emergency responders. Permanent roadway modifications include new grade separations, modifications to existing grade separations, roadway realignments, and roadway closures. Overall, the existing roadway network would be maintained, lane configurations would be maintained, and the roadway closures would occur within areas that would become part of BNSF yards. Replacement of at-grade crossings by road-rail grade separations would improve emergency response travel times through those intersections.	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	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	With Inclusion of HSR Station Option: Fullerton
Impact SS-3: Temporary Exposure to Construction Site Hazards	Workers would be temporarily exposed to construction site hazards. Project design features will require compliance with applicable federal, state, and local regulations and documentation of how safety and security measures and construction safety and health plans would manage potential exposure of construction site hazards and effectively minimize impacts on workers and visitors. The effect for construction on or near the Orange County North Basin site and the Exide site in Vernon would be potentially adverse because construction on or near the Orange County North Basin site and the Exide site in Vernon could potentially cause a significant hazard to the public or the environment from a release of hazardous materials. The effect would be potentially adverse and would therefore require mitigation.	Similar to Shared Passenger Track Alternative A with the exception of potential impacts related to the Exide site. Potential impacts related to the Exide site, a known contamination site, that would occur with Shared Passenger Track Alternative A would be reduced with Shared Passenger Track Alternative B, resulting in a decrease in potential exposure to construction site hazards for Shared Passenger Track Alternative B.	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	No adverse effect	Adverse effect
Impact SS-4: Temporary Exposure to Criminal Activity at Construction Sites	Criminal activity at and around construction sites could include theft of equipment and materials, or vandalism, acts that would not be substantially different from what occurs at other large sites. Security for and access to facilities during construction would be for authorized persons only, deterring criminal activity at construction sites. The SSMP that will be implemented by the contractor prior to commencement of construction will include security lighting, fencing, and monitoring measures to provide security to construction sites and protect the security of construction workers and equipment.	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			
									With Inclusion of HSR Station Option	
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	Norwalk/Santa Fe Springs	Fullerton
Impact SS-5: Accidents Associated with Construction-Related Detours and Traffic Hazards	Road closures and detours from construction could distract automobile drivers, pedestrians, or bicyclists traveling in the area. Distraction or unfamiliarity with the detour or new route created because of these temporary road closures could affect automobile, bicyclist, or pedestrian behaviors, and increase the potential for traffic accidents. Project design features would manage construction vehicle traffic and construction-related temporary road closures and detours and would effectively minimize exposure to traffic hazards.	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 SS-6: Accidents Associated with Permanent Detours and Traffic Hazards	Permanent roadway modifications would result in permanent routes in some locations but, overall, the existing roadway network would be maintained as it currently exists. Any permanent modifications would be designed to comply with all applicable design standards so that no traffic hazards would be introduced.	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 SS-7: Temporary Exposure to Landfill Hazards	Hazards related to potential migration of hazardous gases from construction will be reduced or eliminated with project design features requiring hazard assessment of construction work within 1,000 feet of landfills would effectively minimize potential exposure to landfill hazards, including methane, from project construction.	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			
									With Inclusion of HSR Station Option	
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	Norwalk/Santa Fe Springs	Fullerton
Impact SS-8: Temporary Exposure to Oil and Gas Well Hazards	Construction workers could face risks from working near oil wells and potential exposure to occupational hazards from oil well releases. Project design standards requiring identification and relocation of active and abandoned oil and gas wells within 200 feet of the HSR track prior to commencement of construction would effectively minimize potential exposure to oil and gas well hazards during project construction.	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 SS-9: Temporary Exposure to Valley Fever	Construction activities could cause airborne dust containing the fungus that causes Valley fever to be inhaled by construction workers and visitors to the site. The public could be exposed to the fungus from off-site transport of fill material on public roads and from fugitive dust outside the boundaries of the construction sites. Effective coordination, education, and prevention measures as part of the project design features would minimize temporary impacts on construction workers and the public related to exposure to Valley fever.	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			
									With Inclusion of HSR Station Option	
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	Norwalk/Santa Fe Springs	Fullerton
Impact SS-10: Interference with Aviation Safety	One public-service airport, 33 private heliports, and 8 public heliports are within 2 miles of the project. A Metropolitan Water District heliport on Almeda St in Los Angeles County is 300 feet from the project. Fullerton Municipal Airport in Fullerton in Orange County is less than 0.1 mile from the existing Fullerton Metrolink/Amtrak Station. Shared Passenger Track Alternative A would not encroach on areas defined in the airport land use plan that have height restrictions for Fullerton Municipal Airport. Project features would require the Authority to submit designs and information to FAA to ensure that permanent HSR features within and adjacent to the boundary of these facilities do not conflict with 14 CFR Part 77.9(b) or other applicable FAA regulations. The project would be incompatible with the Fullerton Municipal Airport RPZ because of new rail construction and operation within the RPZ. Construction within the RPZ would be subject to review during FAA review of the project section.	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 SS-11: Permanent Interference with Emergency Response Access from Operational Activities	Operations could create delays in emergency response if access is limited. Project features would establish design standards, systems, and procedures such that project operation would not result in inadequate emergency access to the HSR access-controlled right-of-way, station, or maintenance facility.	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			
									With Inclusion of HSR Station Option	
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	Norwalk/Santa Fe Springs	Fullerton
SS-12: Permanent Interference with Emergency Response Times from Operational Activities	HSR operations would add up to four new gate-down events each hour and could result in increased frequencies of delays at limited areas in the vicinity of the existing at-grade crossings. Based on the Authority's screening analysis, affected areas would be primarily on the eastern side of the railroad, with delays experienced by response vehicles dispatched from Anaheim Fire Station #1.	Same as Shared Passenger Track Alternative A.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Similar impacts as the Shared Passenger Track Alternatives within the station area. With inclusion of the Fullerton HSR Station Option, the impact would be greater than that identified for the Shared Passenger Track Alternatives, because HSR trains would travel at slower speeds through the at-grade crossings in Anaheim, thereby increasing the gate-down times compared to nonstop service.	Adverse effect (all alternatives and HSR station options)	SS-MM#1	No adverse effect	No adverse effect	No adverse effect	No adverse effect
Impact SS-13: Permanent Exposure to Rail-Related Hazards	Operation could result in additional potential for railroad-related accidents in the project section, which could pose safety hazards to passengers, crew, residences, and other properties because of collisions or derailment. Project features would minimize permanent exposure to rail-related hazards. Project features require operational rail design and safety features, including PTC systems, that would reduce the potential for permanent exposure to rail-related hazards, including incidents and accidents including derailments and collisions.	Similar to Shared Passenger Track Alternative A. The 15th Street LMF would be approximately 3 miles from LAUS, resulting in shorter travel times of deadhead moves of HSR trains from LAUS to the LMF location. Decreased train travel time to and from LAUS would decrease the potential exposure to rail hazards.	Similar impacts to those of the Shared Passenger Track Alternatives within the station area. Addition of the Norwalk/Santa Fe Springs HSR Station Option could increase the potential for rail-related hazards related to HSR trains entering and exiting the station, and to increased numbers of workers and passengers near the railroad right-of-way. Only authorized persons would be permitted access and station design would include necessary safety systems and barriers in the station area.	Similar impacts to those of the Shared Passenger Track Alternatives within the station area. Addition of the Fullerton HSR Station Option could increase the potential for rail-related hazards related to HSR trains entering and exiting the station, and to increased numbers of workers and passengers near the railroad right-of-way. Only authorized persons would be permitted access and station design would include necessary safety systems and barriers in 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			
									With Inclusion of HSR Station Option	
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	Norwalk/Santa Fe Springs	Fullerton
Impact SS-14: Permanent Exposure to High-Risk Facilities	High-risk facilities within the RSA have the potential to be affected by HSR operations. Control measures to reduce identified risks will be applied, and high-risk utilities that cross or run parallel to the tracks and that would not be removed or relocated will remain protected in place after completion of construction during operation. Project features, including a preliminary hazard analysis to determine risks to project operations, would minimize permanent exposure to high-risk facilities.	Similar impacts as Shared Passenger Track Alternative A. Construction of the 15th Street LMF would have potential conflicts with an additional 29 utilities and result in five additional major and high-risk utility conflicts in the city of Los Angeles that would require relocation as compared to Shard 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 SS-15: Permanent Exposure to Oil and Gas Well Hazards	Operations will require that active wells be abandoned and relocated in accordance with state standards and in coordination with the well owners, thereby reducing the potential for exposure to hazards.	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 SS-16: Potential for Criminal and Terrorist Activity	Operations have the potential to attract criminal and terrorist activity. Project features, including a threat and vulnerability assessment, as well as security plans and a SEPP, would minimize potential for criminal and terrorist activity.	Same as Shared Passenger Track Alternative A.	Similar impacts to those of the Shared Passenger Track Alternatives within the station area. Because this is an existing Metrolink station, adding HSR service would result in additional people accessing and passing through the station site. Authority-developed project design features, plans, and safeguards would minimize security impacts.	Similar impacts to those of the Shared Passenger Track Alternatives within the station area. Because this is an existing Metrolink/Amtrak station, adding HSR service would result in additional people accessing and passing through the station site. Authority-developed project design features, plans, and safeguards would minimize security impacts.	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	With Inclusion of HSR Station Option: Fullerton
Impact SS-17: Need for Expansion of Existing Fire, Rescue, and Emergency Services Facilities	Operation of Shared Passenger Track Alternative A would not result in significant emergency response delays that would require the need for new or expanded facilities. Operations will include project design characteristics that increase safety via improvements at the at-grade crossings and full and partial grade separation that would minimize the potential for rail incidents. Authority-developed plans include collaboration with local responders to coordinate and develop effective emergency response so expansion of services and facilities is not needed.	Similar to Shared Passenger Track Alternative A. The alternatives differ only in the LMF site and would be subject to similar safety systems and similar procedures for emergency planning and incident response.	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 SS-18: Permanent Safety Hazard to Schools	Operations include a PTC system, intrusion detection system, and inspections maintenance programs to minimize the risk of accidents. Additionally, derailment containment systems, including check rails, parapets, undercar guards, and alternate barrier systems, would keep the train within the right-of-way and railcars upright in the event of a derailment, minimizing the safety risk for schools in the RSA.	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 SS-19: Wildfire Hazards	There are no areas within moderate to very high fire hazard severity zones, or wildland. Therefore, the risk of wildfire hazard would be minimal. The Authority would form a statewide Fire and Life Safety and Security Committee for programs and coordination activities that allow for rapid response by local emergency responders in the case of an accident, reducing the potential for uncontrolled wildfire events.	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

Authority = California High-Speed Rail Authority; BNSF = BNSF Railway; CFR = Code of Federal Regulations; CSTMP = Construction Safety Transportation Management Plan; FAA = Federal Aviation Administration; HSR = high-speed rail; LAUS = Los Angeles Union Station; LMF = light maintenance facility; N/A = not applicable; NEPA = National Environmental Policy Act; PTC = positive train control; RPZ = Runway Protection Zone; RSA = resource study area; SEPP = Security and Emergency Preparedness Plan; SSMP = Safety and Security Management Plan

3.11.9 CEQA Significance Conclusions

As described in Section 3.11.4.5, 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 3.11-15 contains a summary of the CEQA determination of significance for all construction and operational impacts for the project.

Table 3.11-15 CEQA Significance Conclusions for Safety and Security

Impact	Impact Description and CEQA Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Construction				
Impact SS-1: Increased Response Times for Fire, Rescue, and Emergency Services from Temporary Road Closures	Less than significant for both project alternatives, Project construction would result in delays in emergency vehicle access and response time through temporary road closures, relocations, modifications, and reconstructions; project features would effectively minimize impacts of project construction on emergency response times.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-2: Increased Response Times for Fire, Rescue, and Emergency Services from Permanent Road Closures and Permanent Roadway Changes	Less than significant for both project alternatives. Permanent roadway modifications would maintain the existing roadway network and overall lane configurations, and would not result in increased response times for emergency responders.	No mitigation measures are required.	Not applicable	All alternatives and options

Impact	Impact Description and CEQA Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact SS-3: Temporary Exposure to Construction Site Hazards	Less than significant for both project alternatives for most construction sites including most potential environmental concern sites: The project would result in temporary exposure of workers to construction site hazards. Project features would manage potential exposure to construction site hazards and effectively minimize impacts from exposure to construction site hazards at most construction sites. The impact under CEQA for construction on or near the Orange County North Basin site and the Exide site in Vernon would be significant because construction on or near the Orange County North Basin site and the Exide site in Vernon could potentially cause a significant hazard to the public or the environment from a release of hazardous materials. Because of the extensive nature of potential impacts associated with the two Superfund sites and because completion of remediation activities at each site is currently unknown, significant exposure to contaminants associated with these sites could occur during construction.	HMW-MM#2	Significant and unavoidable	Shared Passenger Track Alternatives A and B and Fullerton HSR Station Option
Impact SS-4: Temporary Exposure to Criminal Activity at Construction Sites	Less than significant for both project alternatives: Potential for increase in criminal activity at and around HSR construction sites could occur. Project features would include access restrictions to unauthorized persons, effectively minimizing access to facilities during construction and deterring criminal activity at construction sites.	No mitigation measures are required.	Not applicable	All alternatives and options

Impact	Impact Description and CEQA Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact SS-5: Accidents Associated with Construction-Related Detours and Traffic Hazards	Less than significant for both project alternatives: The project would result in construction-related detours. Project features will manage construction vehicle traffic and construction-related temporary road closures and detours and the project features would effectively minimize exposure to traffic hazards.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-6: Accidents Associated with Permanent Detours and Traffic Hazards	Less than significant for both project alternatives: Permanent roadway modifications would result in permanent routes in some locations but, overall, the existing roadway network would be maintained as it currently exists. Any permanent modifications would be designed to comply with all applicable design standards so that no traffic hazards would be introduced.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-7: Temporary Exposure to Landfill Hazards	Less than significant for both project alternatives: The project features requiring hazard assessment of construction work within 1,000 feet of landfills would effectively minimize potential exposure to landfill hazards from project construction.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-8: Temporary Exposure to Oil and Gas Well Hazards	Less than significant for both project alternatives: The project design standards requiring identification and inspection of active and abandoned oil and gas wells within 200 feet of the HSR track prior to commencing construction would effectively minimize potential exposure to oil and gas well hazards during project construction.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-9: Temporary Exposure to Valley Fever	Less than significant for both project alternatives: Project features, such as effective fugitive dust control measures, will minimize the risk of exposure to Valley fever.	No mitigation measures are required.	Not applicable	All alternatives and options

Impact	Impact Description and CEQA Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact SS-10: Interference with Aviation Safety	Less than significant for both project alternatives: The project would be incompatible with the Fullerton Municipal Airport RPZ because of new rail construction and operation within the RPZ. Construction within the RPZ would be subject to review during FAA review of the project section. The project would not encroach on areas having defined height limits in the airport land use plan.	No mitigation measures are required.	Not applicable	All alternatives and options
Operation				
Impact SS-11: Permanent Interference with Emergency Response Access from Operational Activities	Less than significant for both project alternatives: The project features would establish design standards, systems, and procedures such that project operation would not result in inadequate emergency access to the HSR access-controlled right-of-way, stations, or maintenance facilities.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-12: Permanent Interference with Emergency Response Times from Operational Activities	Significant for both project alternatives and station options	SS-MM#1	Less than significant	All alternatives and options
Impact SS-13: Permanent Exposure to Rail-Related Hazards	Less than significant for both project alternatives: The project features would minimize permanent exposure to rail-related hazards. Project features require operational rail design and safety features, including the PTC systems, that would reduce the potential for permanent exposure to rail-related hazards, including incidents and accidents including derailments and collisions.	No mitigation measures are required.	Not applicable	All alternatives and options

Impact	Impact Description and CEQA Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact SS-14: Permanent Exposure to High-Risk Facilities	Less than significant for both project alternatives: The project features would minimize permanent exposure to high-risk facilities. Project features require a hazard management plan that will identify hazards and assess associated risk. Control measures to reduce identified risks will be applied, and high-risk utilities that cross or run parallel to the tracks will remain protected in place after completion of construction.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-15: Permanent Exposure to Oil and Gas Well Hazards	Less than significant for both project alternatives: Potential exposure to oil and gas hazards will be reduced or eliminated, as active wells will be abandoned and relocated.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-16: Potential for Criminal and Terrorist Activity	Less than significant for both project alternatives: The project features will minimize safety risks through planning, coordination, and implementation of design features to minimize the risk of criminal or terrorist acts and provide safe access for emergency response and evacuation.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-17: Need for Expansion of Existing Fire, Rescue, and Emergency Services Facilities	Less than significant for both project alternatives: The project would not result in the need for expansion of existing fire, rescue, and emergency services facilities. Project design characteristics would minimize the potential for rail accidents and rail incidents; therefore, an increase in the need for local response to accidents and incidents is not expected.	No mitigation measures are required.	Not applicable	All alternatives and options

Impact	Impact Description and CEQA Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact SS-18: Permanent Safety Hazards to Schools	Less than significant for both project alternatives: A PTC system, intrusion detection system, and inspection and maintenance programs will minimize the risk of accidents, and derailment containments would keep the train within the right-of-way and railcars upright in the event of a derailment.	No mitigation measures are required.	Not applicable	All alternatives and options
Impact SS-19: Wildfire Hazards	Less than significant for both project alternatives: No project areas are within moderate to very high fire hazard severity zones, and the risks of fires during construction and operations would be low. Project features will coordinate and plan for rapid emergency response during accidents to reduce the potential for uncontrolled wildfires.	No mitigation measures are required.	Not applicable	All alternatives and options

CEQA = California Environmental Quality Act; HSR = high-speed rail; LMF = light maintenance facility; project section = Los Angeles to Anaheim Project Section; PTC = positive train control; RPZ = Runway Protection Zone