

4.9 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates potential impacts of the proposed Plan related to hazards and hazardous materials.

4.9.1 EXISTING CONDITIONS

HAZARDOUS MATERIALS AND WASTES

Hazardous materials and wastes are defined and regulated in the United States by federal, State, and local agencies, including those administered by the U.S. Environmental Protection Agency (EPA), the California Environmental Protection Agency (CalEPA), the U.S. Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation (USDOT), the U.S. Nuclear Regulatory Commission, and others. Health and Safety Code Section 25501 defines hazardous material as follows:

“Hazardous material” means a material listed in paragraph (2) that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment, or a material specified in an ordinance adopted pursuant to paragraph (3).

(2) Hazardous materials include all of the following:

- (A) A substance or product for which the manufacturer or producer is required to prepare a material safety data sheet pursuant to the Hazardous Substances Information and Training Act (Chapter 2.5 (commencing with Section 6360) of Part 1 of Division 5 of the Labor Code) or pursuant to any applicable federal law or regulation.
 - (B) A substance listed as a radioactive material in Appendix B of Part 30 (commencing with Section 30.1) of Title 10 of the Code of Federal Regulations, as maintained and updated by the Nuclear Regulatory Commission.
 - (C) A substance listed pursuant to Title 49 of the Code of Federal Regulations.
 - (D) A substance listed in Section 339 of Title 8 of the California Code of Regulations.
 - (E) A material listed as a hazardous waste, as defined by [Health and Safety Code] Sections 25115, 25117, and 25316.
- (3) The governing body of a unified program agency may adopt an ordinance that provides that, within the jurisdiction of the unified program agency, a material not listed in paragraph (2) is a hazardous material for purposes of this article if a handler has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment, and requests the governing body of the unified program agency to adopt that ordinance, or if the governing body of the unified program agency has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. The handler or the unified program agency shall notify the secretary no later than 30 days after the date an ordinance is adopted pursuant to this paragraph.

“Hazardous wastes” can be liquids, solids, or contained gases. They can be the byproducts of manufacturing processes, discarded used materials, or discarded unused commercial products such as cleaning fluids (solvents) or pesticides.

Generation, Use, Transport, and Disposal of Hazardous Materials

Businesses that use, store, handle, and/or generate hazardous materials within the San Diego region are monitored at the federal level by EPA, the Department of Toxic Substances Control (DTSC), San Diego Regional Water Quality Control Board (RWQCB), the County of San Diego Department of Environmental Health (DEH) Hazardous Materials Division (HMD); County of San Diego Local Enforcement Agency (LEA) programs, and the County of San Diego Air Pollution Control District (SDAPCD). Several federal laws, regulations, plans, and policies control the storage, use, handling, disposal, and transport of hazardous materials and waste in order to protect public health and the environment. Federal regulations are also in place to protect workers, and to facilitate emergency and evacuation procedures. Select regulations applicable to the proposed Plan are discussed in this section.

A *hazardous waste generator* is any person or facility who produces a hazardous waste as listed or characterized in 40 Code of Federal Regulations (CFR) 261 (EPA 2017) Registered generators of hazardous waste fall into three categories: large-quantity generators (LQGs), small-quantity generators (SQGs), and very small-quantity generators (VSQGs). An LQG is defined as a person or facility generating more than 2,200 pounds of hazardous waste per month. An SQG is defined as generating greater than 220 pound and less than 2,200 pounds of hazardous waste per month. VSQGs are defined as generating 220 pounds or less of hazardous waste per month (EPA 2018b).

LQGs include industrial and commercial facilities, such as manufacturing companies, petroleum refining facilities, and other heavy industrial businesses. LQGs must comply with general federal and State requirements for managing hazardous waste. LQGs need an EPA identification number that is used to monitor and track hazardous waste activities. SQGs include facilities such as service stations, automotive repair, dry cleaners, and medical offices. The regulatory requirements for SQGs are less stringent than the requirements for LQGs. However, SQGs must also obtain an EPA identification number, which must be used for traceability on all hazardous waste documentation. VSQGs are not required by EPA to obtain an EPA ID number or submit a notification form. (EPA 2018b)

Pursuant to federal law, all such generators must register with EPA for record-keeping and recording. The EPA Unified Hazardous Waste and Hazardous Materials Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs related to hazardous materials and hazardous waste. The State agencies responsible for these programs set the standards for their program while local governments implement the standards. CalEPA oversees the implementation of the program as a whole.

Historical and present-day activities in the San Diego region have involved the generation, use, transport, and/or disposal of hazardous materials and wastes. Hazardous materials are commonly used in commercial, industrial, agricultural, and (less frequently) residential activities. Documented existing and past generators of hazardous materials throughout the region include commercial uses such as painters, dry cleaners, printers, and photographers; and industrial uses such as automotive service stations, automotive mechanics, sheet metal works, metal scrap yards, truck yards, cement and lime warehouses, coal yards, battery manufacturers, aircraft manufacturers, and electrical substations (SWRCB 2021). Structures built prior to 1973 were commonly manufactured using asbestos-containing materials (ACM) and, prior to 1987, lead-based paint (LBP). Land

throughout the region has historically been used agriculturally where pesticides were commonly used. Additionally, multiple closed and active landfills and former and active military sites are located in the San Diego region. Multiple facilities are permitted to generate, handle, transport, and/or dispose of hazardous materials and wastes.

The following common types of chemicals (among others) are present in the San Diego region:

- Total petroleum hydrocarbons
- Chlorinated volatile organic compounds
- Pesticides
- Lead and other metals
- Asbestos

Although not listed above and not studied historically, emerging chemicals of concern (ECCs) may be important in the future because their risk to human health and the environment is not yet fully understood. Recent studies have shown that some ECCs can act as endocrine disruptors, disrupting normal hormone function, and can produce effects at the parts per billion or parts per trillion level (EPA 2018a). ECCs that are being analyzed with more frequency in the San Diego region include bis-phenol-A, phthalates, arsenic, perchlorate, nonylphenols, synthetic musks and other personal care product ingredients, nitrosodimethylamine, brominated flame retardants, nanoparticles, pharmaceutical wastes, and industrial chemical additives, stabilizers and adjuvants. A full list of ECCs and their fact sheets can be found on the EPA website (EPA 2018a).

Transportation of hazardous materials and wastes in the San Diego region occurs through a variety of modes: truck, rail, air, and pipeline. Several gas transmission pipelines and hazardous liquid pipelines are located in the western portion of the San Diego region and traverse from the international border with Mexico as far north as Orange and Riverside Counties, and as far east as the community of Alpine. Two types of lines are owned by San Diego Gas and Electric (SDGE): gas transmission pipelines, which are generally large-diameter pipelines that operate at pressures above 200 pounds per square inch (psi) and transport gas from supply points to the gas distribution system), and high-pressure distribution mains, which operate at pressures above 60 psi and deliver gas in smaller volumes to the medium-pressure distribution system (NPMS 2018, SDGE 2018).

According to the USDOT Pipeline and Hazardous Materials Safety Administration's *Transportation of Hazardous Materials Biennial Report to Congress 2013-2014*, highway transportation accounts for the largest share of incidents, deaths, and injuries associated with hazardous materials transportation in the United States. Rail accounts for the next largest portion, followed by air and water modes of transport. (USDOT 2016)

Fifty active hazardous waste transporters were registered within the San Diego region as of mid-2018 (DTSC 2018a). Shipments of hazardous materials and wastes include a wide variety of chemicals, such as petroleum products, medical waste, and radioactive materials. Aside from rail and pipeline, hazardous materials are transported within the San Diego region along the same freeways, arterials, and local streets as other traffic (SANDAG 2015).

Identification of Contaminated Sites

Concentrations of chemicals in soil, soil vapor, and groundwater, as well as the lateral and vertical extent can change over time based on the nature of the contaminants identified and the local geology, hydrology, and soil characteristics associated with a specific impacted site. Multiple federal and regional government databases

track and identify sites where hazardous substances may have been released. The following databases contain sites in the San Diego region:

- DTSC, EnviroStor database
- Leaking Underground Storage Tank Sites from the State Water Resources Control Board (SWRCB) GeoTracker database
- Active Cease and Desist Orders (CDOs) and Cleanup and Abatement Orders (CAOs) from the SWRCB
- Active and closed solid waste sites from the Solid Waste Inventory System (SWIS) database maintained by the California Integrated Waste Management Board
- Resource Conservation and Recovery Information System (RCRIS) database of Resource Conservation and Recovery Act (RCRA) facilities maintained by EPA
- The U.S. Army Corps of Engineers (USACE) list of Formerly Used Defense Sites (FUDS)
- Hazardous Materials Establishment Listing maintained by the County of San Diego
- The County of San Diego Site Assessment and Mitigation Land and Water Quality Records database

Hazardous waste sites listed in Government Code Section 65962.5 (Cortese List) are identified in the following databases (CalEPA 2018a):

- DTSC EnviroStor (List of Hazardous Waste and Substances Sites)
- SWRCB GeoTracker (List of Open Active Leaking Underground Storage Tanks)
- List of Solid Waste Disposal Site Identified by Water Board with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit, and List of Active CDO and CAO)
- List of Solid Waste Disposal Sites Identified by Water Board with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit
- List of Hazardous Waste Facilities Subject to Corrective Action Pursuant to Section 25187.5 of the Health and Safety Code, Identified by DTSC

These databases are discussed in more detail below.

DTSC EnviroStor Database

EnviroStor is the DTSC data management system for tracking State cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites that potentially require further investigation. Government Code Section 65962.5 requires CalEPA to prepare an annual Hazardous Waste and Substances List, commonly referred to as the Cortese List. The DTSC EnviroStor database identified 10 hazardous waste and substances sites within the San Diego region as listed in Table 4.9-1 and shown on Figure 4.9-3 (DTSC 2021a) (Table 4.9-1).

**Table 4.9-1
Major EnviroStor Hazardous Waste and Substances Sites in the San Diego Region**

Facility Name	Facility Type	Cleanup Status	Address/Location
Ketema Aerospace & Electronics	State Response	Active	790 Greenfield Drive, El Cajon 92021
Cabrillo Power II LLC – Miramar Combustion Turbine	State Response	Active	6897 Consolidated Way, San Diego 92121
Former Anacomp Facility	State Response	Active	1895 Hancock Street, San Diego 92110
Camp Lockett (J09CA707800)	State Response	Active	Campo 91906
Sunflower Properties Inc.	State Response	Active	9755 Distribution Avenue, San Diego 92121
Chatham Brothers Barrel Yard	State Response	Active	2257 Bernardo Avenue, Escondido 92029
Camp Elliott-(J09CA0067)	State Response	Active	Northern Portion of San Diego 92103
UCSD (Camp Matthews) (J09CA111001)	State Response	Active	12 Miles North of San Diego, La Jolla 92103
Borrego Sites (J09CA701100 and J09CA701800 and other Anza Borrego Impact Areas)	State Response	Active	Anza Borrego Desert State Park, Borrego Springs 92004
Tri-City Plating, Incorporated	State Response	Active	1307 South Coast Highway, Oceanside 92054

Source: DTSC 2021a.

State Water Resources Control Board GeoTracker Database

The SWRCB maintains the GeoTracker database of the following types of sites in California: permitted underground storage tanks (USTs); leaking underground storage tanks (LUSTs); Department of Defense (DOD) sites; landfills; Voluntary Assistance Program (VAP) sites; and Spills, Leaks, Investigations, and Cleanups (SLIC) sites. According to GeoTracker, there are over 3,000 LUST listings, over 2,500 SLIC listings, 496 military (DOD) listings, and over 100 land disposal listings in the San Diego region (SWRCB 2021). Many of these sites have been remediated to the satisfaction of the respective oversight agency; however, regulations and cleanup levels may have changed since the case closure was received, and many cases were closed based on specific land use at the time of closure and may need to be reopened if land use changes. Thousands of cases remain open for assessment and remediation.

GeoTracker identifies site location, remediation status, chemicals of concern, potential media affected, regulatory activities, and reports including data submitted to the oversight agency, such as contaminant concentrations in monitoring wells. Also listed in the LUST database are sites that fall under the jurisdiction of the RWQCB or Local Oversight Program for unauthorized releases by the County DEH (SWRCB 2018).

State Water Resources Control Board CDO and CAO Database

The list of active CDOs and CAOs from the SWRCB is a compilation of “all cease and desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after

January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials.” The orders that are “active,” meaning the necessary actions have not yet been completed, are on this list. The list contains many CDOs and CAOs that do not concern the discharge of wastes that are hazardous materials, but the SWRCB’s database does not distinguish between these types or orders. The SWRCB updates this list by deleting sites when there is no longer any discharge of wastes or where the necessary cleanup or abatement actions were taken. There are approximately 52 “active” CDO and/or CAO listings in the San Diego region (some facilities have multiple listings) (CalEPA 2021).

Solid Waste Information System Facility Database

The SWIS facility database contains information on solid waste facilities, operations, and disposal sites throughout California. The types of facilities found in this database include landfills, closed disposal sites, transfer stations, materials recovery facilities, composting sites, transformation facilities, waste tire sites, and disposal sites, which include construction, demolition, and inert debris facilities and operations. For each facility, the database contains information about location, owner, operator, facility type, regulatory and operational status, authorized waste types, local enforcement agency, and inspection and enforcement records. There are 190 facility/site listings within the San Diego region that are under the jurisdiction of the County LEA, of which 113 have achieved regulatory closure (CalRecycle 2021).

FORMERLY USED DEFENSE SITES

USACE maintains a list of FUDS within the San Diego region. FUDS are real properties that were under the jurisdiction of the Secretary of Defense and owned by, leased by, possessed, or used by the United States military services. FUDS are located throughout the United States. In many cases, the ownership of these properties has been transferred to private individuals, corporations, State and local governments, federal agencies, and tribal governments. FUDS include, but are not limited to, hazardous, toxic, and radioactive waste, military munitions including munitions constituents, containerized hazardous, toxic, and radioactive waste, building demolition and/or debris removal, and Potentially Responsible Party sites (USACE 2018).

According to a list prepared by USACE in September 2015, there are 47 FUDS at 21 former and current military installations in the San Diego region (USACE 2021). Many FUDS have potential hazardous waste contamination issues such as disposal areas and leaking underground fuel tanks. Other FUDS facilities utilized practice rounds for training, and some used live munitions and explosives. The live munitions that were fired but did not detonate are known as unexploded ordnance (UXO). The UXO that remain on FUDS properties today pose the greatest safety hazard to the public if they are disturbed (County of San Diego 2007). Many FUDS in San Diego County are under investigation by USACE to identify and remediate potential hazards (USACE 2018).

SCHOOLS

The public school system in the San Diego region has roughly 47 school districts with approximately 750 schools throughout the region. In addition to the primary and secondary schools, there are eight community colleges, three public higher education institutions, and several private education schools at all education levels throughout the region (CDE 2018). Almost all land uses have the potential to use, store, transport, and dispose of hazardous materials. Even schools and day care operations may use and dispose of hazardous materials, such as cleaning products or laboratory chemicals, that potentially pose a risk to human health and the environment. In addition, schools are considered sensitive receptors for exposure to hazardous materials.

AIRPORTS

In the San Diego region, the San Diego County Regional Airport Authority has three main responsibilities: operate San Diego International Airport, plan for the future air transportation needs of the region, and serve as the region's Airport Land Use Commission (ALUC) The ALUC is tasked with creating or updating Airport Land Use Compatibility Plans (ALUCPs) for the region's 12 public-use and 4 military airports in accordance with applicable State and federal laws (Figure 4.9-1).

ALUCPs have been adopted for ~~14 of the all~~ 16 public-use and military airports in the region. Those airports, with year of adoption of the latest ALUCP are listed below (Airport Authority 2021).

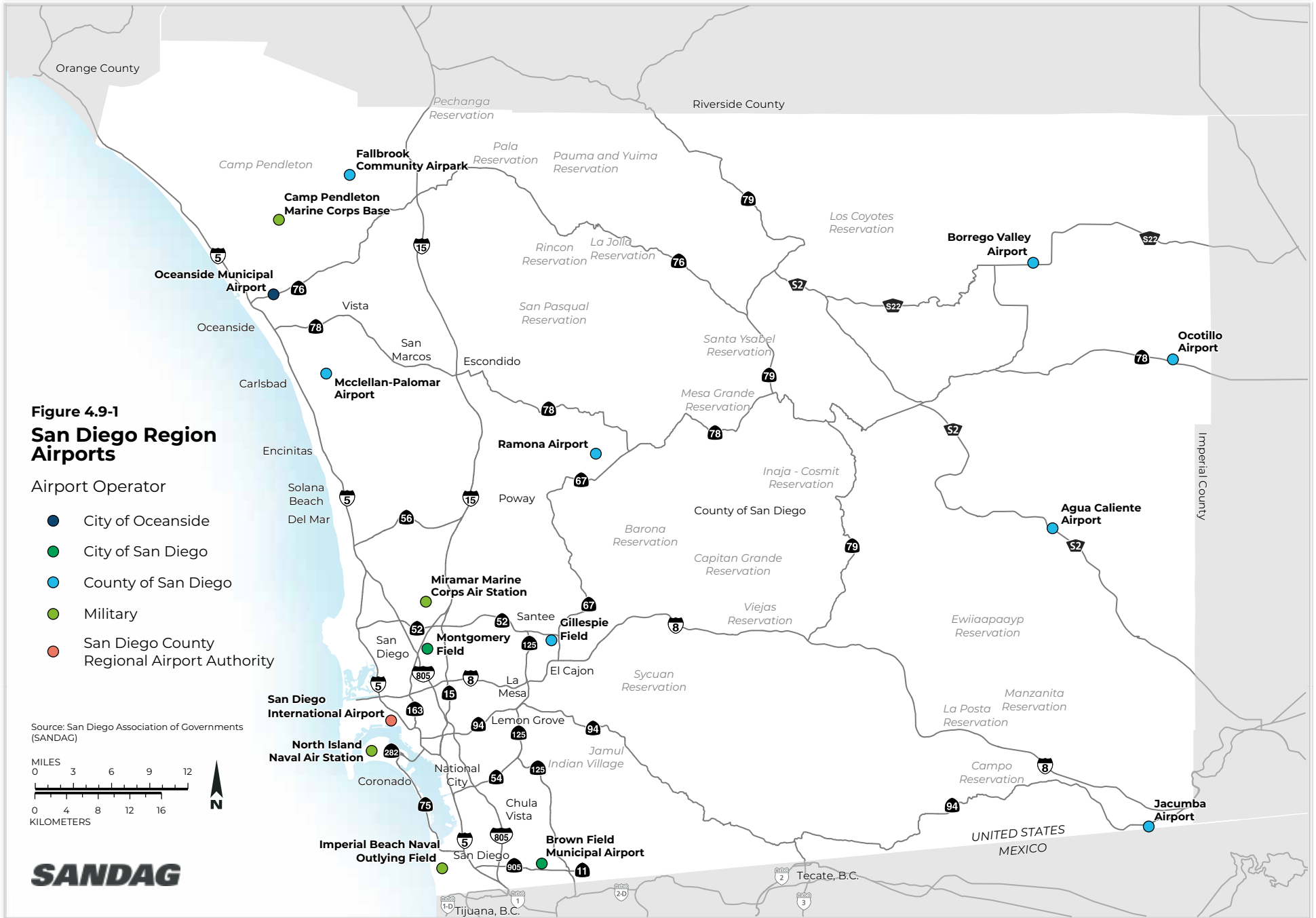
- Agua Caliente Springs Airport (2011)
- Borrego Valley Airport (2011)
- Brown Field (2010)
- Fallbrook Community Airpark (2011)
- Gillespie Field (2010)
- Jacumba Airport (2011)
- Marine Corps Base Camp Pendleton (2008)
- Marine Corps Air Station Miramar (2011)
- McClellan-Palomar Airport (2011)
- Montgomery Field (2010)
- Naval Air Station North Island (2020)
- Naval Outlying Landing Field Imperial Beach (2015)
- Oceanside Municipal Airport (2010)
- Ocotillo Airport (2011)
- Ramona Airport (2011)
- San Diego International Airport – Lindbergh Field (2014)

EMERGENCY RESPONSE AND EVACUATION

Potential disasters for which emergency response and/or evacuations are necessary include earthquakes, floods, pandemic influenza, nuclear accident (e.g., at the now inactive San Onofre Nuclear Generating Station or at an active military installation where nuclear materials may be stored or in transit), terrorism, tsunamis, and wildland fires. Any of these disasters could involve emergency response or evacuation of affected areas. Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, State, and local levels for all types of disasters, human-made and natural. It is the responsibility of government to undertake an ongoing comprehensive approach to emergency management in order to avoid or minimize the effects of hazardous events. Local governments have the primary responsibility for preparedness and response activities. Laws and Regulations governing emergency response and evacuation are discussed in Section 4.9.2, *Regulatory Setting*.

If evacuation is required, local jurisdictions work with the Operational Area Emergency Operations Center, (OAEOC), operated by the San Diego County Office of Emergency Services (OES) (2018b) law enforcement officials, the California Department of Transportation (Caltrans), the California Highway Patrol (CHP), County Public Works, and other applicable agencies/departments to identify evacuation points and transportation routes. In addition, transportation points are identified to collect and transport people without transportation resources to evacuation points. Response is coordinated by the OAEOC.

Any large-scale response to an incident, including those resulting in the evacuation of more than two impacted communities, is coordinated through the OAEOC operating under a unified command. The Coordinator of Emergency Services manages the overall multijurisdictional evacuation effort and the Operational Area Law Enforcement Coordinator is responsible for coordinating operational area-wide evacuation activities. Evacuation operations in the field are conducted by law enforcement agencies, highway/road/street departments, and public and private transportation providers. The following interstates and state highways are identified in the Operational Area Emergency Operations Plan (OES 2018b) as the primary transportation routes for an evacuation effort in the San Diego region: Interstate (I-) 5, I-8, I-15, I-805, and State Route (SR) 52, SR 54, SR 67, SR 75, SR 76, SR 78, SR 94, SR 125, SR 163, and SR 905 (OES 2018b) (Figure 4.9-2). Emergency Response Plans are discussed further in Section 4.9.2.

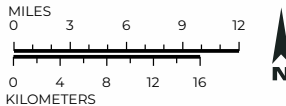




**Figure 4.9-2
Emergency
Evacuation
Routes in the
San Diego Region**

 Emergency Evacuation Routes

Source: SANDAG 2021

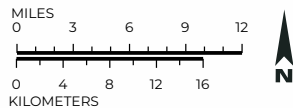


SANDAG

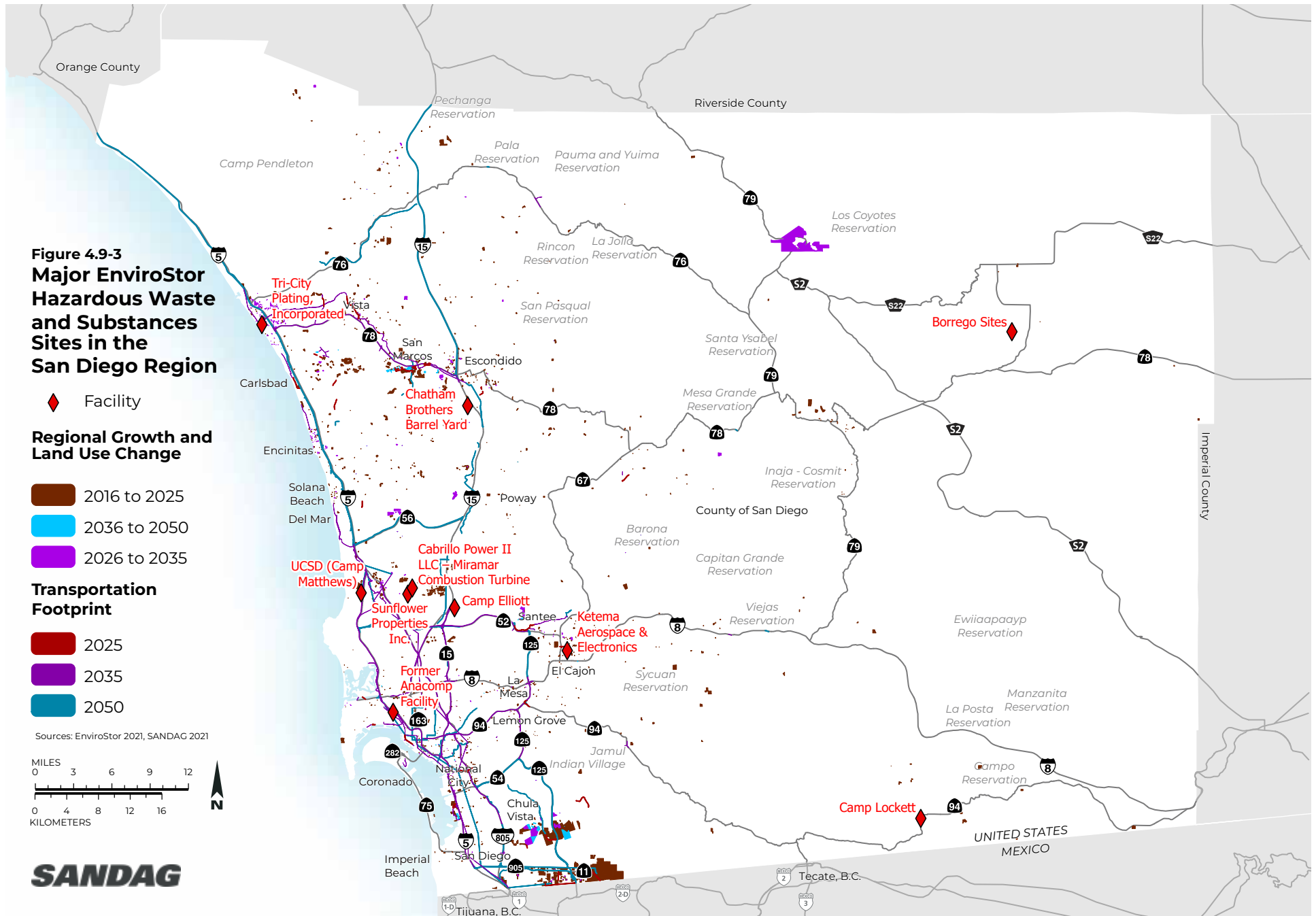
**Figure 4.9-3
Major EnviroStor
Hazardous Waste
and Substances
Sites in the
San Diego Region**

- ◆ Facility
- Regional Growth and Land Use Change**
- 2016 to 2025
- 2036 to 2050
- 2026 to 2035
- Transportation Footprint**
- 2025
- 2035
- 2050

Sources: EnviroStor 2021, SANDAG 2021



SANDAG



ANTICIPATED EFFECTS FROM CLIMATE CHANGE

Climate change may increase risk from hazards due to sea-level rise submerging coastal lands, more frequent and severe flooding, higher temperatures, and higher incidence of wildfire. The San Diego region is likely to experience sea level rise of up to 1.2 feet by 2050 and up to 4.6 feet by 2100, wetter winters and more intense precipitation that can lead to increased flooding, more intense heat waves and annual average temperatures increases of up to 4.8°F by 2050, and a longer and less predictable fire season (CEP and SDF 2015, Kalansky et al. 2018, OPC 2018). More details on future climate projections are available in Appendix C.

Many of the impacts of climate change are hazardous to human lives and the infrastructure they depend upon. The region may also face various indirect impacts of climate change, such as worsened air quality, higher rates of temperature-related illnesses and diseases, landslides, and beach erosion. Climate change may also worsen hazards in the region associated with hazardous materials, sensitive infrastructure, dangers to public health, and obstructions of emergency response.

Flooding of hazardous material sites could introduce toxic substances to human and environmental health by contaminating drinking water supplies, buildings, and ecosystems. Hazardous material sites include Superfund sites, hazardous waste generators, facilities required to report emissions for the Toxics Release Inventory, facilities regulated under the National Pollutant Discharge Elimination System, major dischargers of air pollutants with Title V permits, and brownfield properties. Heberger et al. (2009) found no hazardous material sites in the San Diego region in areas vulnerable to a 100-year flood event. However, a 1.4-meter (4.6-foot) rise in sea level could bring 13 of the regional sites into areas vulnerable to a 100-year storm (Heberger et al. 2009). Note, however, that this 1.4-meter sea level rise scenario is the upper limit of current estimates in the San Diego region; it is not clear how many sites would be within the inundation zones under other scenarios. Thus, the potential impacts of climate change-related sea level rise on hazardous material sites in the San Diego region would vary depending on the degree of climate change, and resulting sea level rise, that occurs.

A combination of sea-level rise and storm flooding may obstruct emergency response routes, vehicles, and plans in the case of an emergency. In San Diego County, a 1.4-meter rise in sea level could make more vehicle infrastructure along the coast vulnerable to a 100-year storm. This sea-level rise would bring 8 miles of highways (compared to 0.62 mile in 2000), 57 miles of roads (compared to 12 miles in 2000), and 9.8 miles of railways (compared to 3 miles in 2000) into vulnerable areas (Heberger et al. 2009). Once again, this 1.4 meter of sea-level rise is in the upper limit of current estimates of sea-level rise in the San Diego region, and it is uncertain if those current estimates will bring highways and roads into areas vulnerable to flooding from a 100-year storm. More frequent wildfires, occurring due to increased temperatures and periods of drought due to climate change, may also obstruct roads for emergency vehicles, though the probability and extent of this occurring is unknown.

4.9.2 REGULATORY SETTING

FEDERAL LAWS, REGULATIONS, PLANS, AND POLICIES

Hazardous Materials and Wastes

Toxic Substances Control Act of 1976

The Toxic Substances Control Act of 1976 (15 United States Code [USC] 2601 et seq.) addresses the production, importation, use, and disposal of polychlorinated biphenyls (PCBs), asbestos, ACMs and LBP. Sections of the act provide EPA with the authority to require reporting, record-keeping, and testing requirements; and implement

restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the act, including, among others, food, drugs, cosmetics, and pesticides.

Asbestos Hazard Emergency Response Act

The Asbestos Hazard Emergency Response Act (15 USC 2641 et seq.) requires local schools to inspect buildings for ACM, prepare asbestos management plans, and implement response actions to reduce and prevent asbestos hazards .

Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act (“RCRA,” 42 USC § 6991 et seq.) establishes a framework for the EPA to manage the generation, treatment, and disposal of solid and hazardous wastes. The statute also addresses program administration; implementation and delegation to the states; enforcement provisions and responsibilities; and research, training, and grant funding. Provisions are established for the generation, storage, treatment, and disposal of hazardous waste, including requirements addressing generator record keeping, labeling, shipping paper management, placarding, emergency response information, training, and security plans The Hazardous and Solid Waste Amendments of 1984 amended the RCRA to phase out land disposal of hazardous waste, require corrective action for releases, set stringent hazardous waste management standards, and establish a comprehensive underground storage tank program. In California, DTSC is responsible for RCRA program implementation. 40 CFR 239–259 includes regulations for solid waste; regulations governing identification, classification, generation, management, and disposal of hazardous waste are described in parts 40 CFR 260–273. Regulations governing management of used oil and USTs can be found in 40 CFR 279–282.

Oil Pollution Prevention

Oil pollution prevention regulations (40 CFR 112) establish procedures, methods, and other requirements to prevent the discharge of oil from non-transportation-related facilities. The regulations require the preparation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan if oil is stored in excess of 1,320 gallons aboveground in containers with a capacity of 55 gallons or more (or have a buried capacity of 42,000 gallons). SPCC regulations also place restrictions on the management of petroleum materials.

Clean Air Act Amendments Risk Management Rule

Section 112(r) of the 1990 Clean Air Act Amendments requires EPA to publish regulations and guidance for chemical accident prevention at facilities that use extremely hazardous substances. These regulations and guidance are contained in the Risk Management Plan (RMP) rule (40 CFR 68), which requires companies using more than a threshold amount of specified regulated substances to develop an RMP. RMPs are required to include the potential effects of an accidental release, identify safety and prevention programs, and describe emergency response procedures in the event of an accidental release. They must be revised and resubmitted to EPA every 5 years. In California, responsibility for the Risk Management Program is delegated to the OES. The list of federally regulated substances and federally regulated flammable substances and their threshold quantities can be accessed online from the OES website (<http://www.caloes.ca.gov/>).

National Emission Standards for Hazardous Air Pollutants, Subpart M – National Emission Standard for Asbestos

EPA has established National Emission Standards for Hazardous Air Pollutants, including ACM. (49 CFR 61.140 et seq.) The use, removal, and disposal of ACM are regulated by EPA, which requires notification of friable ACM removal prior to a proposed demolition project.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (42 USC 116 et seq.) was created to help communities plan for chemical emergencies and also requires facilities to report on the storage, use and release of hazardous materials and wastes. The act provides public access to information about chemical hazards. The EPCRA and its regulations (40 CFR 350–372) establish four types of reporting obligations for facilities storing or managing chemicals: emergency planning, emergency release notification, hazardous chemical storage reporting requirements, and toxic chemical release inventory. EPA maintains a database—the Toxic Release Inventory—that includes information on reportable releases to the environment.

Comprehensive Environmental Response, Compensation, and Liability Act

Thousands of contaminated sites exist nationally due to hazardous waste being dumped, left out in the open, or otherwise improperly managed. These sites include manufacturing facilities, processing plants, landfills and mining sites. The Comprehensive Environmental Response, Compensation, and Liability Act (42 USC 9601 et seq.), also known as the Superfund program, established a program to clean up uncontrolled or abandoned hazardous waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. EPA developed risk-based “regional screening levels” for chemical contaminants at Superfund sites. Regional screening levels are concentrations of hazardous constituents that are considered to be protective for humans (including sensitive groups) over a lifetime. In California, site identification, monitoring, and response activities are coordinated through DTSC.

Occupational Safety and Health Act

Under this act (29 USC 651 et seq.) and its regulations (29 CFR 1910.1220 et seq.), facilities that use, store, manufacture, handle, process, or transport hazardous materials are required to conduct employee safety training; inventory safety equipment relevant to potential hazards; have knowledge on safety equipment use; prepare an illness prevention program; provide hazardous substance exposure warnings; prepare an emergency response plan; and prepare a fire prevention plan.

OSHA standards require employee training; personal protective equipment; safety equipment; and written procedures, programs, and plans for ensuring worker safety when working with hazardous materials or in hazardous work environments during construction activities, including renovations and demolition projects and the handling, storage, and use of explosives. These standards also provide rules for the removal and disposal of hazardous materials including ACM, LBP, and other lead-containing materials.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (49 USC 100 et seq.) regulates the transportation of hazardous materials under the authority of the Secretary of Transportation. A hazardous material, as defined by the

Secretary of Transportation, is any “particular quantity or form” of a material that “may pose an unreasonable risk to health and safety or property.”

The act governs the safe transportation of hazardous materials by various transportation modes including trucks, rail, air, water, and transport by pipeline. USDOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers. USDOT regulations pertaining to the actual movement govern every aspect of the movement, including packaging, handling, labeling, marking, placarding, operational standards, and highway routing. Additionally, USDOT is responsible for developing curriculum to train for emergency response and administers grants to states and Indian tribes for ensuring the proper training of emergency responders (USDOT 2019).

Federal Insecticide, Fungicide, and Rodenticide Act

The use of pesticides is regulated by the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et seq.), which creates the foundation for regulation, sale, distribution, and use of pesticides in the United States. EPA is authorized to review and register pesticides for particular uses. Additionally, EPA is authorized to suspend or cancel the registration of a pesticide if research shows the continued use would create an unreasonable risk.

Airport Safety

Federal Aviation Regulations

Federal Aviation Administration (FAA) regulations (14 CFR 77) imposes height restrictions to prevent obstructions to navigable airspace to protect flights and surrounding structures. These regulations establish requirements for notifying the FAA of certain construction activities and alterations to existing structures, to ensure there are no obstructions to navigable airspace. In certain cases, the FAA should be notified of proposed development. The notification of proposed development provides a basis for the following:

- Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures
- Determining the possible hazardous effect of the proposed construction or alteration of air navigation
- Recommending ways to identify the construction or alteration in accordance with current FAA Advisory Circular AC 70/7460-1K dated August 1, 2000, Obstruction Marking and Lighting
- Determining other measures to be applied for continued safety of air navigation
- Charting and other notification to airmen of the construction or alteration
- Providing regulations for small unmanned aircraft (drones)

Certain projects that may affect public and military airports require notification to the FAA. Individual jurisdictions can request an FAA evaluation of proposed development when certain features appear to be potentially hazardous.

U.S. Department of Defense Air Installations Compatible Use Zone Program

Safety compatibility criteria for U.S. military air bases are set forth through the Air Installations Compatible Use Zone (AICUZ) Program administered by the DOD. The objective of this program is to encourage compatible uses

of public and private lands proximate to military air installations through the local communities' comprehensive planning process. DOD creates AICUZ plans for all major military air installations. The plans recommend land uses that may be compatible with air installations noise levels, and accident potential and flight clearance requirements associated with military airfield operations. AICUZ plans generally contain three safety zones: Clear Zones and two Accident Potential Zones (APZs). A Clear Zone is the area immediately beyond the end of the runway, which has the highest potential of accidents. These are typically acquired by the government in fee and kept clear of obstructions to flight. APZ-1 is the area immediately beyond the Clear Zone that possesses a significant potential for accidents. APZ-2 is the area beyond APZ-1 that still has a measurable potential for accidents. AICUZ descriptions of these three zones are intended to be guidelines for compatible land use planning. Because military installations often lack land use authority over the extent of an AICUZ, it is the responsibility of the relevant jurisdictions to ensure incompatible uses are either not permitted or properly regulated (NAVFAC 2018).

Natural Disaster

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (Public Law 106-390) provides the legal basis for Federal Emergency Management Agency (FEMA) mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant assistance. A state mitigation plan is required as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 USC 5121) is designed to assist the efforts of the affected states in expediting the rendering of aid, assistance, and emergency services, and the reconstruction and rehabilitation of devastated areas. The act provides the statutory and regulatory framework for most federal disaster response activities especially as they pertain to FEMA and FEMA programs, and allows for a presidential declaration of an emergency or a declaration of a major disaster, which in turn allows for a wide range of federal resources to be made available to assist in dealing with an emergency or major disaster.

STATE LAWS, REGULATIONS, PLANS, AND POLICIES

Hazardous Materials

California Hazardous Waste Control Law of 1972

This legislation (Health and Safety Code Section 25100 et seq) created the framework under which hazardous wastes must be managed in California. It provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA program. It also provides for the designation of California-only hazardous wastes and development of standards that are equal to or, in some cases, more stringent than, federal requirements. Each Certified Unified Program Agency (CUPA) is responsible for implementing some elements of the law at the local level.

California's hazardous waste laws are collectively known as the Hazardous Waste Control Law (Health and Safety Code Section 25100 et seq.). Under the CUPA program, Cal/EPA has, in turn, delegated enforcement authority to the County of San Diego for State law regulating hazardous waste producers or generators. The County of San Diego is the designated CUPA for all local jurisdictions within the project area

Environmental Health Standards for the Management of Hazardous Waste

These regulations (22 California Code of Regulations [CCR], Division 4.5) establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and federal RCRA. As with federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of wastes. Hazardous waste generators must obtain identification numbers; prepare manifests before transporting waste off site; and use only permitted treatment, storage, and disposal facilities. Standards also include requirements for record keeping, reporting, packaging, and labeling. Additionally, while not a federal requirement, California requires that hazardous waste be transported by registered hazardous waste transporters.

In addition, these regulations require that generators of 12,000 kilograms/year of typical, operational hazardous waste evaluate their waste streams every 4 years and, as applicable, select and implement viable source reduction alternatives. The California Hazardous Waste Control Act does not apply to nontypical hazardous waste, such as ACM and PCBs.

California Environmental Protection Agency – Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Program (Unified Program [Health and Safety Code Section 25404 et seq.]) governs administrative requirements, permits, inspections, and enforcement in California. Under CalEPA, DTSC and Enforcement and Emergency Response Program administer the technical implementation of the Unified Program, which consolidates the administration, permit, inspection, and enforcement activities of several environmental and emergency management programs at the local level (CalEPA 2018). CUPAs implement the hazardous waste and materials standards. The following programs make up the Unified Program:

- Aboveground Petroleum Storage Act Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories/Hazardous Materials Business Plans
- Hazardous Material Management Plan and Hazardous Material Inventory Statements
- Hazardous Waste Generator and On-site Hazardous Waste Treatment (Tiered Permitting) Program
- Underground Storage Tank Program

The San Diego County DEH HMD has been certified by CalEPA as the local CUPA. Thus, the DEH HMD is responsible for implementing the federal and State laws and regulations for all jurisdictions within the San Diego region.

Carpenter-Presley-Tanner Hazardous Substance Account Act

The Carpenter-Presley-Tanner Hazardous Substance Account Act (Health and Safety Code Section 25300 et seq.) establishes a State Superfund program to clean up contaminated sites not listed on the National Priorities List. The act authorizes DTSC to initiate remedial and removal actions, and to enter into enforceable agreements with potentially responsible parties to investigate and remediate contamination.

Proposition 65

Proposition 65 (Health and Safety Code Section 25249.5 et seq.; 22 CCR 12000 et seq.), also known as the Safe Drinking Water and Toxic Enforcement Act of 1986, requires that regulated businesses not expose persons to significant concentrations of carcinogens or reproductive toxicants without providing a “clear and reasonable” warning. Additionally, regulated businesses must not discharge or release any listed carcinogens or reproductive toxicants that potentially may contact a source or potential source of drinking water.

California Accidental Release Prevention Program

In California, the accidental release Risk Management Plan Program is the CalARP program (Health and Safety Code Section 25531–25543.3). The program addresses facilities that contain specified hazardous materials, known as “regulated substances,” that, if involved in an accidental release, could result in adverse off-site consequences. The CalARP program is implemented at the local government level by CUPAs. The CalARP program is designed so these agencies work directly with the regulated businesses. The CUPAs determine the level of detail in the RMPs, review the RMPs, conduct facility inspections, and provide public access to most of the information (CAL OES 2014a).

Department of Toxic Substances Control

DTSC regulates hazardous waste in California under the federal RCRA program and the California Health and Safety Code. It implements permitting, inspection, compliance, and corrective action programs to ensure that hazardous wastes are managed in compliance with State and federal requirements. DTSC also oversees the implementation of the hazardous waste generator and onsite treatment program at the local level consolidated within the CUPA Program

The DTSC Enforcement and Emergency Response Program (Enforcement Program) is composed of multiple program components to provide statewide response to actual and potential release of hazardous materials that pose an acute threat to public health or the environment. The Enforcement Program conducts inspections and takes enforcement action at facilities for which permits have been issued by DTSC including transporters, some generators of hazardous waste, and electronic waste handlers. The Enforcement Program responds statewide to calls requesting DTSC assistance for emergency removals from illegal/ clandestine drug labs and other hazardous materials emergencies. Requests for assistance are handled by the Enforcement Program’s Emergency Response Duty Officers (DTSC 2018c).

EnviroStor is a search tool for DTSC that tracks information on contaminated sites in California, as well as information on permitting and enforcement. Searching is available by city, zip code, and senate and assembly districts, as well as county. Outputs are available both as a list of sites or a map of an area with cities highlighted in colors according to their status and site type (DTSC 2021b).

EnviroStor’s site database contains a list of contaminated sites as well as lists of facilities that process or transfer toxic waste. The database includes federally designated sites, State response sites, military sites, school sites, and voluntary cleanup sites.

Hazardous Materials Business Plan Program

The intent of the Hazardous Materials Business Plan Program (Health and Safety Code Sections 25500-25519) is to provide necessary information to first responders in order to prevent or minimize damage to public health and safety and the environment from a release or threatened release of hazardous materials. The program does

so by requiring businesses that handle hazardous materials in quantities equal to or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, or extremely hazardous substances above the threshold planning quantity to: inventory their hazardous materials, develop a site map, develop an emergency plan, and implement a training program for employees. This program implements Section 312 reporting requirements of the federal EPCRA (CAL OES 2014b).

Aboveground Petroleum Storage Act

The Aboveground Petroleum Storage Act (Health and Safety Code Section 25270 et seq.) applies to owners and operators with a total storage capacity of 1,320 gallons or more. The act transfers the authority and responsibility of aboveground storage tanks from the SWRCB and RWQCB to the CUPAs, and requires owner/operators of a regulated tank facility to prepare and implement a SPCC Plan. The CUPA is required to conduct inspections at regulated tank facilities with an aggregate storage capacity greater than or equal to 10,000 gallons of petroleum at least every 3 years.

California Land Environmental Restoration and Reuse Act

The California Human Health Screening Levels (CHHSL) were developed as a tool to assist in the evaluation of contaminated sites for potential adverse threats to human health. Preparation of the CHHSL was required by the California Land Environmental Restoration and Reuse Act.

The CHHSL are concentrations of 54 hazardous chemicals in soil or soil gas that are below CalEPA's thresholds of concern for risks to human health. The CHHSL were developed by the Office of Environmental Health Hazard Assessment (OEHHA) and can be found in *Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil* (OEHHA 2005). The thresholds of concern used to develop the CHHSL are an excess lifetime cancer risk of 1 in 1 million and a hazard quotient of 1.0 for noncancerous health effects. The CHHSL were developed using standard exposure assumptions and chemical toxicity values published by EPA and CalEPA. The CHHSL can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose a significant human health risk. (OEHHA 2018).

Emergency Response to Hazardous Materials Incident

California's Emergency Response Plan (OES 2018b) coordinates emergency services provided by federal, State, and local government, and private agencies. The California Emergency Management Agency (Cal EMA) administers the plan, which includes response to hazardous materials incidents. Cal EMA also coordinates the response of other agencies, including CalEPA, CHP, California Department of Fish and Wildlife, Regional RWQCB, SDAPCD, the City of San Diego Fire Department, and DEH Hazardous Incident Response Team.

Underground Storage Tank Act

The UST monitoring and response program is required under Health and Safety Code Section 5280 et seq. and 22 CCR 2630). The program ensures that facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response when operating or owning USTs. The County of San Diego DEH is the local administering agency for this program.

California Department of Transportation/California Highway Patrol

California regulates the transportation of hazardous waste originating or passing through the state. The CHP and Caltrans have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. CHP also oversees vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Unless specifically exempted, it is unlawful in California for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC, which maintains a list of active registered hazardous waste transporters throughout California. Transported hazardous waste must be accompanied by hazardous waste manifests. (22 CCR 66263.10 et seq.).

State Pesticide Regulation

In California, all pesticides must be registered by the Department of Pesticide Regulation (DPR). DPR is authorized to deny registration for pesticides having a significant adverse and unavoidable impact unless the benefit clearly outweighs the risks (3 CCR 6158). People in the pest control business must register with the county agricultural commissioner and hold a pest control license issued by DPR. Applicators of some restricted use pesticides also may require a permit from the county agricultural commissioner (Food and Agricultural Code Section 14004 et seq.),

Schools

Phase I ESA Requirements

Education Code Section 17213.1 requires that DTSC be involved in the environmental review process for the proposed acquisition and/or construction of school properties that will use State funding. The CEC requires that a Phase I Environmental Site Assessment (ESA) be completed prior to acquiring a school site or engaging in a school construction project. Depending on the outcome of the Phase I ESA, a Preliminary Endangerment Assessment, including the collection and submittal of samples for analysis, may be warranted. Depending upon the results of the Preliminary Endangerment Assessment, remediation may be necessary (DTSC 2001).

Airport Safety

State Aeronautics Act

The State Aeronautics Act (Public Utilities Code Section 21675) requires each ALUC establish an ALUCP to provide for the orderly growth of each public airport and the surrounding area within the jurisdiction of the commission.

An ALUCP focuses on a defined area around each airport known as the Airport Influence Area (AIA). Additionally, airport safety zones are established for all public airports as part of the ALUCP, and land use restrictions within safety zones are established to protect people and property on the ground and in the air. The AIA is composed of noise, safety, airspace protection, and overflight factors, in accordance with guidance from the *California Airport Land Use Planning Handbook* published by the California Department of Transportation, Division of Aeronautics (Caltrans 2011, Airport Authority 2021).

The ALUC reviews land use plans, development proposals, and certain airport development plans for consistency with adopted ALUCPs. ALUCPs provide guidance on appropriate land uses surrounding airports to protect the health and safety of people and property within the vicinity of an airport, as well as the public in general. The ALUC has no jurisdiction over the operation of airports or over existing land uses, regardless of whether such uses are incompatible with airport activities. Once ALUCPs have been adopted by the ALUC, local agencies with land located within the AIA boundary for any of the airports must amend their planning documents to conform to the applicable ALUCP, unless they follow certain procedures to overrule the ALUCP. (Government Code Section 65302.3)

The four compatibility factors considered in an ALUCP as identified in the *California Airport Land Use Planning Handbook* are noise, safety, airspace protection, and overflight. The objectives of planning for each of these factors are summarized below:

Noise: Avoid introducing new noise-sensitive land uses in the vicinity of an airport that would be exposed to significant levels of aircraft noise, taking into account the characteristics of the airport and the communities surrounding the airport.

Safety: Minimize the risks associated with potential off-airport aircraft accidents and emergency landings. This objective has two components:

Safety on the Ground: Provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.

Safety of Aircraft Occupants: Enhance the chances of survival of the occupants of an aircraft involved in an accident beyond the immediate runway area.

Airspace Protection: Avoid the development of land use conditions that, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics that pose other potential hazards to flight by creating visual or electronic interference with air navigation.

Overflight: Avoid, to the extent possible, new land use development that would be disrupted by overflight activity and might lead to annoyance and complaints; notify people about the presence of aircraft overflights near airports so they can make informed decisions regarding acquisition or lease of property.

Caltrans Division of Aeronautics

The Caltrans Division of Aeronautics issues permits for, and annually inspects hospital heliports and public-use airports, makes recommendations regarding proposed school sites within 2 miles of an airport runway, and authorizes helicopter landing sites at/near schools. If Caltrans does not support a proposed school site, the school district or charter school may not acquire or lease the site, and no State or local funds can be used to acquire the site or construct the school (Caltrans 2018).

Disaster Recovery/Natural Disasters

State Hazard Mitigation Plan

The State Hazard Mitigation Plan (CAL OES 2018) is California's primary hazard mitigation guidance document and provides an updated and comprehensive description of the State's historical and current hazard analysis, mitigation strategies, goals, and objectives. Approved by FEMA on September 28, 2018, as an Enhanced State Mitigation Plan, the plan continues to build upon California's commitment to reduce or eliminate the impacts of disasters caused by natural, technological, accidental, and adversarial/human-caused hazards, and further identifies and documents progress made in hazard mitigation efforts, new or revised State and federal statutes and regulations, and emerging hazard conditions and risks that affect the State of California.

California Emergency Services Act

The California Emergency Services Act (Government Code Section 8550 et seq.) provides the basic authority for conducting emergency operations following a proclamation of emergency by the governor and/or appropriate local authorities. Local government and district emergency plans are considered extensions of the California Emergency Plan, established in accordance with the Emergency Services Act.

California Disaster Assistance Act

The California Disaster Assistance Act (CDAA) (Government Code Sections 8680–8692) provides aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, in cases where property has been damaged or destroyed by a natural disaster. The CDAA is activated after the following occurs: (1) a local declaration of emergency, or (2) Cal EMA gives concurrence with the local declaration, or (3) the governor issues a Proclamation of a State Emergency. Once the CDAA is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

REGIONAL AND LOCAL LAWS, REGULATIONS, PLANS, AND POLICIES

Hazardous Materials

County of San Diego Department of Environmental Health

The County of San Diego DEH HMD has been the CUPA for San Diego County since 1996. All inspections in the CUPA Program are performed by trained Environmental Health Specialists who take part in a continuous education program to ensure consistency and uniformity during inspections. These inspections determine compliance with the following:

- Hazardous Waste Control, Aboveground Storage of Petroleum, Underground Storage of Hazardous Substances, California Toxic Release Inventory Program (Health and Safety Code Chapters 6.5, 6.67, 6.7, and 6.95, respectively)
- Medical Waste Management Act (Division 104, Part 14)
- Public Safety and Underground Storage Tank Regulations (CCR Titles 19 and 23, respectively)
- Inventory, Emergency Response, and Employee Training (Health and Safety Code 25503) (County of San Diego 2017a)

County of San Diego Site Assessment and Mitigation Program

The primary goal of the San Diego County DEH Site and Mitigation (SAM) Program is to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code, and the CCR. The SAM's VAP also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence on projects pertaining to properties contaminated with hazardous substances. The DEH SAM Program maintains the SAM list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions.

The SAM Program covers the entire San Diego region and includes remediation sites of all sizes. The SAM case listing is revised and updated regularly and the number of sites on the list is continually changing but may contain upwards of 5,000 cases at one time. If a project is submitted to the County for discretionary review and is located on a site found on the SAM list, the project status must be determined, and any ongoing remediation requirements coordinated with the DEH SAM project manager (DEH 2018a).

Voluntary Assistance Program

The DEH VAP is a voluntary option for project oversight, staff consultation, and technical report evaluation for projects on properties with hazardous substance contamination. Through the VAP, members of the SAM team at the DEH provide consultation and overview, and report concurrence on projects involving properties suspected or known to be contaminated with hazardous substances. The SAM utilizes current guidelines and policies of the DEH and RWQCB to reach site assessment and cleanup goals at sites under the VAP. Assistance is customized to meet the needs of the applicant. The objective of the VAP is to allow rapid and cost-effective resolution of contamination problems. The most commonly submitted documents are work plans, Phase I ESA reports, Phase II ESA reports, and health risk evaluations (DEH 2018b).

County of San Diego Underground Storage Tank Program

The DEH regulates construction, operation, repair, and removal of UST systems. The program administers and enforces federal and State laws and regulations and local ordinances for the construction/installation, modification, upgrade, and removal of USTs in the San Diego region. If contamination is discovered or likely to be present, owners or operators of USTs are required by law to report the contamination to the DEH HMD and SAM programs and to take corrective action (DEH 2018c).

San Diego County Hazardous Materials Area Plan

The County of San Diego DEH HMD established the San Diego County Hazardous Materials Area Plan based on federal and State requirements for emergency response to a release or threatened release of a hazardous material within the County. The Hazardous Materials Program and Response Plan contained in the Hazardous Materials Area Plan serves the majority of the cities in the San Diego region (County of San Diego 2017b).

Airport and Flight Safety

San Diego County Regional Airport Authority

The San Diego County Regional Airport Authority (Airport Authority) was established under State law as an independent agency to manage the day-to-day operations of San Diego International Airport and to address the

region's long-term air transportation needs (Airport Authority 2021). As the ALUC the Airport Authority is responsible for creating or updating for the region's ALUCPs.

In addition to the public or military airports, there are numerous private airports, airstrips, and helipads in the region. Many of these private airports are located in the eastern areas of the region or remote vacation destinations. Several private helipads are located on the roofs of hospitals and buildings owned by large corporations, or used by police stations. The majority of these private airports have not adopted an ALUCP.

Requirements for Notice to Military

Public Resources Code (PRC) Section 21098 requires lead agencies to submit a notice to the military service that would be affected by a proposed General Plan Amendment; project of statewide, regional, or area-wide significance; or a project that must be referred to the ALUC when the project is located within specific boundaries of a low-level flight path, military impact zone, or special use airspace. Noticing is required when a Notice of Preparation of an EIR is issued and when environmental documents are released for public review. Government Code Section 65352 requires that, prior to action by a legislative body to adopt or substantially amend a general plan, the lead agency shall refer the proposed action to various entities, including the branches of the United States Military that have provided the Office of Planning and Research with a mailing address, when the proposed action is:

- Located within 1,000 feet of a military installation
- Located beneath a low-level flight path
- Within special use airspace as defined in PRC Section 21098 (California Legislative Information 2018)

Disaster Recovery and Assistance/Natural Disasters

County of San Diego Office of Emergency Services and Unified Disaster Council

In the San Diego region, the County OES and the Unified Disaster Council (UDC) play a central role in the preparation and execution of emergency response and evacuation plans. OES alerts and notifies appropriate agencies when disaster strikes, coordinates all responding agencies, ensures resources are available and mobilized, develops plans and procedures for response and recovery, and develops and provides preparedness materials for the public (San Diego County OES 2018a).

The UDC is the governing body of the Unified San Diego County Emergency Services Organization. The UDC is composed of the Chair of the County of San Diego Board of Supervisors, who serves as Chair of the Council, and representatives from the 18 incorporated cities. The primary purpose of the UDC and the OES is to provide for the coordination of plans and programs designed for the protection of life and property in the San Diego region.

The UDC, with OES acting as staff, has prepared and adopted the Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan (Emergency Plan). The Emergency Plan outlines strategies, procedures, recommendations, and organizational structures that can be used to implement a coordinated evacuation effort in the San Diego Operational Area (UDC 2018).

The OES maintains Dam Evacuation Plans for the Operational Area, and other stand-alone plans are available for places and events that might produce the need for evacuations (San Diego County OES 2014). The plans are listed below:

- The San Diego County Nuclear Power Plant Emergency Response Plan
- The San Diego County Operational Area Oil Spill Contingency Element of the Area Hazardous Materials Plan
- The Unified San Diego County Emergency Services Organization Operational Area Energy Shortage Response Plan
- The San Diego Operational Area Recovery Plan
- The San Diego County Multi-Jurisdictional Hazard Mitigation Plan
- The San Diego Urban Area Tactical Interoperable Communications Plan
- The San Diego County Terrorist Incident Emergency Response Protocol

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The federal Disaster Mitigation Act of 2000 (Public Law 106-390) requires all local governments to create disaster plans in order to qualify for hazard mitigation funding. The Multi-Jurisdictional Hazard Mitigation Plan is a countywide plan that identifies risks and ways to minimize damage by natural and human-made disasters. The plan is a comprehensive resource document that serves many purposes such as enhancing public awareness, creating a decision tool for management, promoting compliance with State and federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination. The plan evaluates risks associated with coastal storms, erosion, tsunamis, dam failure, earthquakes, floods, rain-induced landslides, liquefaction, structure/wildland fires, and manmade hazards. It also provides goals, objectives, and actions to reduce impacts from these hazards. The plan was last revised in 2018 and is currently being reviewed and revised (San Diego County OES 2021).

4.9.3 SIGNIFICANCE CRITERIA

Appendix G of the CEQA Guidelines provides criteria for determining the significance of a project's environmental impacts in the form of Initial Study checklist questions. Unless otherwise noted, the significance criteria specifically developed for this EIR are based on the checklist questions that address the criteria in CEQA Guidelines Appendix G. In some cases, SANDAG has combined checklist questions, edited their wording, or changed their location in the document in an effort to develop significance criteria that reflect the programmatic level of analysis in this EIR and the unique nature of the proposed Plan.

Checklist questions for hazards and hazardous materials are provided in Section IX of CEQA Guidelines Appendix G. For purposes of this EIR the Appendix G questions have been combined and modified. Specifically, HAZ-1 below incorporates the questions found within Appendix G Section IX(b) and IX(d) regarding emitting hazardous materials and location on a hazardous materials site. HAZ-2 addresses questions IX(a) and IX(c) addressing public hazards through transport, use, and disposal of hazardous materials/hazardous material handling near schools. HAZ-3 addresses air traffic hazards consistent with question IX(e) regarding public airports. The excessive noise portion of question IX(e) is addressed in criterion NOI-3 in Section 4.13, *Noise and Vibration*. HAZ-4, regarding emergency response and evacuation addresses Section IX(f) and Section XVII(d) related to transportation and Section XX (a) related to wildfire addressing emergency response and evacuation. Appendix G, Section IX, question (g) is addressed in criterion WF-4 in Section 4.19, *Wildfire*. For the purpose of this EIR, implementation of the proposed Plan would have a significant hazards impact if it would:

- HAZ-1** Create a significant hazard by generating hazardous emissions or handling hazardous materials, or result in the release of hazardous materials into the environment during pre-construction, demolition, and/or construction activities, including being located on a Government Code Section 65952.5 hazardous materials site.
- HAZ-2** Create a significant hazard to the public, schools within one-quarter mile, or the environment through the routine use, handling, transport, or disposal of hazardous materials.
- HAZ-3** For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.
- HAZ-4** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or result in inadequate emergency access.

4.9.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

- HAZ-1** **CREATE A SIGNIFICANT HAZARD BY GENERATING HAZARDOUS EMISSIONS OR HANDLING HAZARDOUS MATERIALS, OR RESULT IN THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT DURING PRE-CONSTRUCTION, DEMOLITION, AND/OR CONSTRUCTION ACTIVITIES, INCLUDING BEING LOCATED ON A GOVERNMENT CODE SECTION 65952.5 HAZARDOUS MATERIALS SITE**

ANALYSIS METHODOLOGY

The following analysis describes the types of hazardous materials that would be encountered, used, and handled during the preconstruction, demolition, or construction of development projects associated with the implementation of the proposed Plan. It analyzes whether hazardous materials encountered, used, or handled during such activities would create a significant hazard to people or the environment. The analysis compares the locations of forecasted regional growth and land use change or transportation network improvements and programs to general hazardous materials conditions, including Government Code Section 65952.5 hazardous materials sites, that could be disturbed and/or encountered during these activities. This analysis also identifies applicable laws and regulations for the proper storage, containment, use, and removal of hazardous materials during preconstruction, demolition, and construction; and describes how they minimize hazards and hazardous materials impacts.

IMPACT ANALYSIS

2025

Regional Growth and Land Use Change

From 2016 to 2025, regional population is forecasted to increase by 161,338 people (5 percent), 97,661 housing units (8 percent), and 115,328 jobs (7 percent). Approximately 79 percent of the forecasted regional population increase by 2025 is in the City of San Diego (58 percent), City of Chula Vista (12 percent), and City of Escondido (9 percent).

Most land uses are likely to involve activities in which some form of hazardous materials would be routinely used, stored, handled, and transported. Increased residential and mixed-use development would increase the use, storage, and disposal of household hazardous materials. The grading, excavation, and dewatering of sites

for new development and redevelopment throughout the region could expose construction workers and the public to known or potentially unknown hazardous substances present in the soil or groundwater. In the event undiscovered hazardous material contamination is found in the soil or groundwater during construction activities for new development and redevelopment, such contamination could cause short- or long-term adverse health effects in persons exposed to the hazardous substances.

In addition, exposure to contaminants could occur from construction-related activities that would disturb existing hazardous waste sites (e.g., demolition, soil disturbances); routine use, disposal, and storage of common hazardous materials such as paints, solvents, and cleaning products; and/or accidents during the routine transport of hazardous materials. These materials would include any regulated asbestos-containing materials, lead-based paint, or debris characterized as hazardous waste (e.g., lead waste) from demolition of facilities constructed prior to 1978.

Construction activities associated with forecasted regional growth and land use change would disturb the subsurface in the area of some former UST sites. Disturbing residual petroleum contamination increases the risks to human health and the environment during excavation, transportation, and disposal. Additionally, construction activities would be located on or near the sites identified in Table 4.9-1 from the DTSC database. In some cases, former uses of land, such as agriculture and industrial processes, have left residual hazardous substance contamination in the soil, which would pose an adverse risk to humans or the environment when encountered during ground disturbance activities such as grading or removal of soil prior to construction.

Wherever hazardous materials are used or stored, or hazardous waste generated, there is the potential for releases to the environment. In each situation, the hazards and the risks they would pose to people or the environment would depend on the nature and amount of the hazardous materials used, the location where the materials would be used and stored and the particular containment measures put into place, the processes and handling procedures for the materials, and the personnel dealing with the hazardous materials. Although such activities involve strict regulations regarding monitoring and handling, accidental release of hazardous materials due to natural disasters, human error, or misuse is possible.

As described in Section 4.9.2, numerous federal, State, and local regulations exist that reduce the potential for humans or the environment to be impacted by generating hazardous emissions or handling of hazardous materials during preconstruction, demolition, and or construction activities. Businesses that handle/generate hazardous materials within the region are monitored by EPA; San Diego Regional Water Quality Control Board (RWQCB); the Department of Toxic Substances Control (DTSC), the County of San Diego DEH; LEA programs; and the SDAPCD. The California Administrative Code provides standards designed to avoid releases, including provisions regarding securing materials and container design. The County of San Diego's DEH is also required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventative measures to minimize the risk of a spill or release of hazardous substances.

Compliance with such regulations would minimize the potential for creation of a hazard and provide planning mechanisms for prompt and effective cleanup if an accidental release did occur. Adherence to existing regulations would therefore ensure that any emissions or handling of hazardous materials during preconstruction, demolition, and construction of development projects would not create a significant hazard. Therefore, regional growth and land use change would have a less than significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2025 include new Managed Lanes on I-5 from Manchester Avenue to Vandegrift; new toll lanes on SR 11 to the Otay Mesa POE; Interchange and Arterial Operational improvements at SR 94 and SR 125, and the Otay Mesa Port of Entry Commercial Vehicle Enforcement Facility (CVEG); and tolling equipment and Regional Border Management System investments on SR 11. Other major network improvements include double-tracking at certain locations on the LOSSAN rail corridor along with a station addition in the Gaslamp Quarter, San Diego.

These transportation network improvements would involve the routine transport, use, or disposal of hazardous materials, particularly for highway, light rail, and arterial improvement projects. During construction activities, hazardous waste sites could be encountered (particularly those projects through urban infill areas and older structures that may contain hazardous materials), which may require the extraction and transportation of contaminated soil, groundwater, and hazardous building materials. In addition to hazardous waste that may be encountered at sites with historical chemical releases, along well-traveled transportation road corridors that existed prior to the phasing out of leaded gasoline, including the routes listed above, shallow soil adjacent to the right-of-way may have been contaminated with aerially-deposited lead (ADL) caused by historical emissions from vehicle exhausts. The lead concentrations in shallow soil may exceed State and Federal hazardous waste criteria or may be at concentrations that require special handling and waste management.

The construction and maintenance of transportation facilities would likely involve the use of hazardous materials such as fuels and other refined petroleum products, solvents, and paints and other architectural coatings. Highway improvements would increase the capacity of existing roadways, indirectly increasing the capacity of routes used to transport hazardous materials. Improvements to rail corridors would increase the capacity of goods, including hazardous materials, to be carried by freight rail throughout the region. Such improvements would increase the risk of accidents and the potential release of hazardous materials into the environment.

Existing federal, State, and local laws, regulations, and programs included in Section 4.9.2 that govern the use of hazardous materials strictly regulate the proper handling of such materials and their containers to ensure that routine transport, use, and disposal of hazardous materials do not create a significant hazard to the public or the environment. Adherence to these regulations would ensure impacts associated with routine transport, use, or disposal of hazardous materials would be less than significant.

2025 Conclusion

Regional growth, land use development, and transportation network improvements would increase by 2025, thereby increasing the risk of hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials during preconstruction, construction, and demolition activities. However, adherence to existing regulations, as discussed above, would ensure that these activities do not create a significant hazard to people or the environment. Therefore, this impact (HAZ-1) is less than significant for this period.

2035***Regional Growth and Land Use Change***

From 2026 to 2035, regional population is forecasted to increase by 149,500 people (4 percent), 121,650 housing units (9 percent), and 159,728 jobs (9 percent). Approximately 80 percent of the forecasted regional population increase between 2026 and 2035 is in the City of San Diego (71 percent), National City (7 percent), and City of Chula Vista (2 percent).

As described in the 2025 analysis, because most land uses are likely to involve activities in which some form of hazardous materials would be routinely used, stored, handled, and transported, this growth has the potential to increase the chance of an accidental release of these materials. In addition, construction and demolition activities would increase, which would involve a variety of products that include hazardous materials. In some cases, former uses of the land, such as agriculture and industrial processes and sites with a history of chemical releases (major sites were identified in Table 4.9-1), may leave residual hazardous substances in soil and groundwater, which could pose a significant risk to people or the environment. Similar conditions can result from demolition and construction near former UST sites and near structures (e.g., older bridges) that used building materials now considered hazardous (e.g., asbestos and lead-based paint). By 2035, the storage, use, or generation of hazardous materials or hazardous waste would be greater, increasing the potential for releases to the environment.

As described in Section 4.9.2, numerous federal, State, and local regulations exist that reduce the potential for people or the environment to be impacted by an accidental release of hazardous materials. Compliance with such regulations would minimize the potential for a release to occur and provide planning mechanisms for prompt and effective cleanup if an accidental release did occur. Adherence to existing regulations would ensure impacts related to the accidental release of hazardous materials into the environment during construction and demolition activities would be less than significant.

Transportation Network Improvements and Programs

The transportation network improvements that would be implemented between 2026 and 2035 include new Managed Lanes and Managed Lane Connectors on SR 15, SR 52, SR 94, SR 78, SR 163, SR 125, I-5, I-8, I-15, I-805. Double-tracking of the LOSSAN rail corridor would continue between 2026 and 2035. This phase also includes a major new commuter rail line (Route 582) between National City and Sorrento Mesa. It also includes light rail investments with SPRINTER, Blue Line, and Orange Line double tracking and grade separations. During this period, two intermodal transit center Mobility Hub projects would be constructed: the Central Mobility Hub (CMH) in downtown San Diego and the San Ysidro Mobility Hub (SYMh) at the US-Mexico border.

The construction of regional transportation improvements would employ materials such as oils, greases, and solvents that could be released into the environment accidentally if not transported, handled, used, or disposed of properly. During construction activities, hazardous waste sites could be encountered and materials released into the environment. Most of the proposed highway and freeway improvements would increase the capacity of existing roadways, which would facilitate the movement of goods, including hazardous materials, throughout the San Diego region, thus increasing the risk of accidents and the release of hazardous materials into the environment. As discussed in the 2025 analysis, construction along highway corridors that existed prior to the phasing out of leaded-gasoline, ADL impacted soil would be encountered that may require special handling, management, and disposal.

The federal, State, and local laws, regulations, and programs discussed in Section 4.9.2 reduce the potential for people or the environment to be impacted by an accidental release of hazardous materials. Adherence to these laws, regulations, and programs would ensure that impacts associated with routine transport, use, or disposal of hazardous materials would be less than significant.

2035 Conclusion

Regional growth, land use development, and transportation network improvements would increase by 2035, thereby increasing the risk of hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials during preconstruction, construction, and demolition activities. However, adherence to existing regulations would ensure that a significant hazard to the public or the environment would not be created due to upset or accident conditions involving the release of hazardous materials into the environment. Therefore, this impact (HAZ-1) is less than significant for this period.

2050

Regional Growth and Land Use Change

From 2036 to 2050, regional population is forecasted to increase by 125,725 people (3 percent), 61,433 housing units (4 percent) and 164,843 jobs (8 percent). Approximately 78 percent of the forecasted regional population increase between 2036 and 2050 is in the City of San Diego (37 percent), City of San Marcos (13 percent), and City of Chula Vista (28 percent).

As described in the 2025 and 2035 analyses, as development and redevelopment increase so does the routine transport, use, or disposal of hazardous materials. The severity of potential effects varies with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors. Additionally, construction activities would be located on or near the sites identified in Table 4.9-1 from the DTSC database. In some cases, former uses of the land, such as agriculture and industrial processes, may leave residual hazardous substances in the soil and groundwater, which could pose a significant risk to people or the environment. By 2050, the storage, use, or generation of hazardous materials or hazardous waste would be greater, increasing the potential for releases to the environment.

Federal, State, and local laws, regulations, and programs described in Section 4.9.2 that govern the use of hazardous materials strictly regulate the proper handling of such materials and their containers to ensure that routine transport, use, and disposal of hazardous materials do not create a significant hazard to the public or the environment. Adherence to these laws, regulations, and programs would ensure that impacts associated with routine transport, use, or disposal of hazardous materials would be less than significant.

Transportation Network Improvements and Programs

Major transportation network improvements include new Managed Lanes and Managed Lane Connectors on State Routes 52, 56, 54, 125, 905 and Interstates 5, 8, 15, 805. Double-tracking at certain locations on the LOSSAN rail corridor would continue during this period. Three major new commuter rail lines would be constructed, including routes between Downtown San Diego and El Cajon (Route 581); National City to the U.S. Border (Route 582 [Extension]) and Central Mobility to the U.S. Border (Route 583). It also includes double tracking of the SPRINTER, Green Line, and Orange Line. Double tracking and grade separations on the Blue Line also are included.

Similar to the 2025 and 2035 analyses, the types of activities that would involve the routine transport, use, or disposal of hazardous materials would continue to occur into 2050 as additional transportation network improvements are implemented. The highway improvements to be implemented by 2050 involve an increase in the capacity of existing roadways, indirectly increasing the capacity of routes used to transport hazardous materials. By 2050, the expansion of rail lines discussed in Chapter 2, *Project Description*, would necessitate the use and transport of hazardous materials for construction purposes. As discussed in the 2025 and 2035 analysis, construction along highway corridors that existed prior to the phasing out of leaded-gasoline, ADL impacted soil would be encountered that may require special handling, management, and disposal.

The federal, State, and local laws, regulations, and programs described in Section 4.9.2 that govern the use of hazard materials strictly regulate the proper handling of such materials and their containers to ensure that routine transport, use, and disposal of hazardous materials do not create a significant hazard to the public or the environment. Adherence to these laws, regulations, and programs would ensure that impacts associated with routine transport, use, or disposal of hazardous materials would be less than significant.

2050 Conclusion

Regional growth, land use development, and transportation network improvements would increase by 2050, thereby increasing the risk of hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials during preconstruction, construction, and demolition activities. However, adherence to the existing regulations discussed above would ensure that a significant hazard to the public or the environment would not be created due to upset or accident conditions involving the release of hazardous materials into the environment. Therefore, this impact (HAZ-1) is less than significant for this period.

Exacerbation of Climate Change Effects

Implementation of the proposed Plan could exacerbate climate change effects on release of hazardous materials to the surrounding environment. Climate change is expected to result in increased frequency and intensity of flooding in the future. This could result in hazardous materials being added to runoff if hazardous materials are improperly stored or exposed to heavy rainfall. Climate change is also expected to increase wildfire risk; this could result in increased hazardous pollutant air emissions if materials are improperly stored or exposed to wildfire. The proposed Plan would result in increased development, which would increase impervious surfaces and thus worsen flooding impacts. Increased development, particularly if constructed near high wildfire risk zones, would also increase the risk of human ignition and thus increase wildfire risk. Therefore, the proposed Plan could exacerbate climate change effects on release of hazardous materials.

HAZ-2 CREATE A SIGNIFICANT HAZARD TO THE PUBLIC, SCHOOLS WITHIN ONE-QUARTER MILE, OR THE ENVIRONMENT THROUGH THE ROUTINE USE, HANDLING, TRANSPORT, OR DISPOSAL OF HAZARDOUS MATERIALS.

ANALYSIS METHODOLOGY

This section analyzes impacts associated with the routine use, handling, transport, and disposal of hazardous materials. It also identifies standard practices for the proper storage, containment, use, and removal of hazardous materials during operations of development projects associated with implementation of the proposed Plan.

The handling and emission of hazardous materials within one-quarter mile of an existing or proposed school is also addressed. The possibility for new schools to be sited near locations where hazardous materials may be handled and emitted is discussed in relation to the locations of proposed development and redevelopment. In addition, the analysis considers how construction activities associated with development projects and transportation network improvements may result in the transport and release of hazardous materials within one-quarter mile of an existing or proposed school. This section also analyzes how existing regulations minimize impacts associated with the routine use, handling, transport, and disposal of hazardous materials.

IMPACT ANALYSIS

2025

Regional Growth and Land Use Change

From 2016 to 2025, regional population is forecasted to increase by 161,338 people (5 percent), 97,661 housing units (8 percent), and 115,328 jobs (7 percent). Approximately 79 percent of the forecasted regional population increase by 2025 is in the City of San Diego (58 percent), City of Chula Vista (12 percent), and City of Escondido (9 percent).

Given the large number of existing schools located throughout the San Diego region (approximately 1,025 public and private), it is likely that additional development and redevelopment forecasted would occur within one-quarter mile of an existing school. Also, it is possible that new or proposed schools could be sited near locations where hazardous materials, substances, and/or waste may be handled or emitted. With the forecasted increase in population and development, there is an increased risk of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

However, as stated in Section 4.9.2, the current regulatory environment provides a high level of protection, which is monitored and enforced at the federal, State, and local levels. The California Education Code (Section 17210 et seq.) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites; or near facilities that emit hazardous air emissions; or handle hazardous or acutely hazardous materials, substances, or waste. The code requires that, prior to commencing the acquisition of property for a new school site, an environmental site investigation be completed to determine the health and safety risks (if any) associated with a site. Furthermore, permitting requirements for individual hazardous materials handlers or emitters, including enforcement of PRC Section 21151.4, would require evaluation and notification where potential materials handling and emissions could occur within one-quarter-mile of schools (existing or proposed). In addition, local regulatory agencies (e.g., fire departments, DEH) have developed emergency response programs designed to limit exposure of schools and other sensitive receptors to hazardous materials and wastes. Therefore, adherence to existing regulations would ensure that the risk of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be minimized. Therefore, this impact (HAZ-2) is less than significant for this period.

Transportation Network Improvements and Programs

Major transportation network improvements by 2025 include new Managed Lanes on I-5 from Manchester Avenue to Vandegrift; new toll lanes on SR 11 to the Otay Mesa POE; Interchange and Arterial Operational improvements at SR 94 and SR 125, and the Otay Mesa Port of Entry Commercial Vehicle Enforcement Facility

(CVEG); and tolling equipment and Regional Border Management System investments on SR 11. Other major network improvements include double-tracking at certain locations on the LOSSAN rail corridor along with a station addition in the Gaslamp Quarter, San Diego.

Construction activities associated with planned transportation network improvements may result in hazardous emissions or the handling of hazardous or acutely hazardous materials, particularly those activities that may involve the use of equipment that contains hazardous materials (e.g., diesel-fueled equipment), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated. In addition, hazardous materials carried on the existing highways, freight rail, and arterials could affect schools via exposure of sensitive receptors to health hazards if there were to be a release or incident during transportation.

Using SANDAG's geographic information system (GIS) database for schools located within the San Diego region, the transportation network improvements by 2025 were overlain on the region to identify where impacts on existing schools may occur if hazardous materials were to be accidentally released into the environment. The results of this analysis indicate that there are approximately 167 schools located within one-quarter mile of planned transportation network improvements. These schools may be impacted if hazardous materials carried on roadways or rail lines were to be released during transportation. In addition, construction of the transportation network improvements would result in the generation of certain types of emissions (e.g., petroleum hydrocarbons, fugitive dust) or the handling of hazardous substances or waste within one-quarter mile of an existing or proposed school site.

As discussed above, the federal, State, and local laws, regulations, and programs described in Section 4.9.2 reduce the risk of hazardous emissions or the handling of hazardous materials, substances, or waste near schools. Therefore, adherence to these regulations would ensure that the risk of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be minimized. Therefore, this impact is less than significant.

2025 Conclusion

Regional growth, land use development, and transportation network improvements would increase by 2025, thereby increasing the risk related to the handling and emission to hazardous materials near schools. However, adherence to existing regulations would ensure that risks associated with the handling or emissions of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be minimized. Therefore, this impact (HAZ-2) is less than significant for this period.

2035

Regional Growth and Land Use Change

From 2026 to 2035, regional population is forecasted to increase by 149,500 people (4 percent), 121,650 housing units (9 percent) and 159,728 jobs (9 percent). Approximately 80 percent of the forecasted regional population increase between 2026 and 2035 is in the City of San Diego (71 percent), National City (7 percent), and City of Chula Vista (2 percent).

The forecasted regional growth and land use development would increase the types and amounts of hazardous materials throughout the San Diego region relative to existing conditions and those experienced by 2025. By 2035, allowable land uses would also likely result in siting sensitive land uses, including schools, near facilities

that use hazardous materials. As a result, hazardous emissions or the handling of hazardous or acutely hazardous materials within one-quarter mile of schools or other sensitive receptors would occur.

However, as stated in Section 4.9.2, the current regulatory environment provides a high level of protection, which is monitored and enforced at the federal, State, and local levels. The California Education Code (Section 17210 et seq.) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites; or near facilities that emit hazardous air emissions; or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, adherence to these regulations would ensure that impacts associated with the handling or emissions of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be less than significant.

Transportation Network Improvements and Programs

The transportation network improvements that would be implemented between 2026 and 2035 include new Managed Lanes and Managed Lane Connectors on SR 15, SR 52, SR 94, SR 78, SR 163, SR 125, I-5, I-8, I-15, I-805. Double-tracking of the LOSSAN rail corridor would continue between 2026 and 2035. This phase also includes a major new commuter rail line (Route 582) between National City and Sorrento Mesa. It also includes light rail investments with SPINTER, Blue Line, and Orange Line double tracking and grade separations. During this period, two intermodal transit center Mobility Hub projects would be constructed: the Central Mobility Hub (CMH) in downtown San Diego and the San Ysidro Mobility Hub (SYM) at the US-Mexico border.

Construction activities associated with the planned transportation network improvements by 2035 may result in hazardous emissions or the handling of hazardous or acutely hazardous materials, or the transportation of excavated soil and/or groundwater containing contaminants near schools. Using SANDAG's GIS database for schools located within the San Diego region, the transportation network improvements planned by 2035 were overlain on the region to identify where impacts on existing schools may occur if hazardous materials were to be accidentally released into the environment. The results of this analysis indicate that there would be approximately 194 schools located within one-quarter mile of planned transportation network improvements by 2035. These schools may be impacted if hazardous materials carried on roadways or rail lines were to be released during transportation. In addition, hazardous materials carried on the existing highways and arterials could affect these schools via exposure of sensitive receptors to health hazards if there were to be a release or incident during transportation.

However, as discussed above, existing federal, State, and local laws, regulations, and programs described in Section 4.9.2 reduce the risk of hazardous emissions or the handling of hazardous materials, substances, or waste near schools. Therefore, adherence to existing regulations would ensure that the risk of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be minimized. Therefore, this impact is less than significant.

2035 Conclusion

Regional growth, land use development, and transportation network improvements would increase by 2035, thereby increasing the risk related to the handling and emission of hazardous materials near schools. However, adherence to existing regulations would ensure that risks associated with the handling or emissions of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be minimized. Therefore, this impact (HAZ-2) is less than significant for this period.

2050***Regional Growth and Land Use Change***

From 2036 to 2050, regional population is forecasted to increase by 125,725 people (3 percent), 61,433 housing units (4 percent), and 164,843 jobs (8 percent). Approximately 78 percent of the forecasted regional population increase between 2036 and 2050 is in the City of San Diego (37 percent), City of San Marcos (13 percent), and City of Chula Vista (28 percent).

The forecasted regional growth and land use development would increase the types and amounts of hazardous materials throughout the San Diego region relative to existing conditions and those experienced in 2025 and 2035. Allowable land uses planned by 2050 would also likely result in siting sensitive land uses, including schools, near facilities that use hazardous materials. As a result, hazardous emissions or the handling of hazardous or acutely hazardous materials within one-quarter mile of schools or other sensitive receptors would occur.

However, as stated in Section 4.9.2, the current regulatory environment provides a high level of protection, which is monitored and enforced at the federal, State, and local levels. The California Education Code (Section 17210 et seq.) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites, or near facilities that emit hazardous air emissions, or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, adherence to these regulations would ensure impacts associated with the handling or emissions of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be less than significant.

Transportation Network Improvements and Programs

Major transportation network improvements include new Managed Lanes and Managed Lane Connectors on State Routes 52, 56, 54, 125, 905 and Interstates 5, 8, 15, 805. Double-tracking at certain locations on the LOSSAN rail corridor would continue during this period. Three major new commuter rail lines would be constructed, including routes between Downtown San Diego and El Cajon (Route 581); National City to the U.S. Border (Route 582 [Extension]) and Central Mobility to the U.S. Border (Route 583). It also includes double tracking of the SPRINTER, Green Line, and Orange Line. Double tracking and grade separations on the Blue Line also are included.

Construction activities associated with these transportation network improvements may result in hazardous emissions or the handling of hazardous or acutely hazardous materials, or the transportation of excavated soil and/or groundwater containing contaminants near schools. Using SANDAG's GIS database for schools located within the San Diego region, the transportation network improvements planned by 2050 were overlain on the region to identify where impacts on existing schools may occur if hazardous materials were to be accidentally released into the environment. The results of this analysis indicate that there would be approximately 190 schools located within one-quarter mile of planned transportation network improvements by 2050. In addition, hazardous materials carried on the existing highways and arterials could affect these schools via exposure of sensitive receptors to health hazards if there were to be a release or incident during transportation.

However, as discussed above, existing federal, State, and local laws, regulations, and programs described in Section 4.9.2 reduce the risk of hazardous emissions or the handling of hazardous near schools. Therefore, adherence to these laws, regulations, and programs would ensure impacts would be less than significant.

2050 Conclusion

Regional growth, land use development, and transportation network improvements would increase by 2050, thereby increasing the risk related to the handling and emission to hazardous materials near schools. However, adherence to existing regulations, as discussed above, would ensure that the risks associated with the handling or emissions of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be minimized. Therefore, this impact (HAZ-2) is less than significant for this period.

Exacerbation of Climate Change Effects

Implementation of the proposed Plan could potentially exacerbate climate change effects of creating hazards to schools through routine use, handling, transport, or disposal of hazardous materials. Climate change is expected to result in increased frequency and intensity of flooding in the future. This could increase hazardous materials in runoff if hazardous materials are improperly stored or exposed to heavy rainfall. Climate change is also expected to increase wildfire risk; this could increase hazardous pollutant air emissions if materials are improperly stored or exposed to wildfire. The proposed Plan would result in increased development, which would increase impervious surfaces and thus worsen flooding impacts. Increased development, particularly if constructed near high wildfire risk zones, would also increase the risk of human ignition and thus increase wildfire risk. Therefore, the proposed Plan could exacerbate climate change effects on creating hazards to schools through routine use, handling, transport, or disposal of hazardous materials.

HAZ-3 FOR A PROJECT LOCATED WITHIN AN AIRPORT LAND USE PLAN OR, WHERE SUCH A PLAN HAS NOT BEEN ADOPTED, WITHIN TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, RESULT IN A SAFETY HAZARD FOR PEOPLE RESIDING OR WORKING IN THE PROJECT AREA.

ANALYSIS METHODOLOGY

This section identifies whether implementation of the proposed Plan's growth and land use changes would result in development projects that would cause safety hazards. To perform this evaluation, the locations of forecasted growth and land use changes are compared to the locations of AIAs and safety zones. The ability of ALUCPs to minimize such safety hazards is described.

Transportation network improvements, including height and location of associated structures, would be evaluated on a project-specific basis for compliance with FAA requirements, so that transportation network improvements would not result in air traffic hazards and would be in compliance with any applicable, current ALUCPs and any additional regulatory document, for each period of evaluation (2025, 2035, and 2050); therefore, they will not be addressed further in this analysis.

IMPACT ANALYSIS

2025

Regional Growth and Land Use Change

From 2016 to 2025, regional population is forecasted to increase by 161,338 people (5 percent), 97,661 housing units (8 percent), and 115,328 jobs (7 percent). Approximately 79 percent of the forecasted regional

population increase by 2025 is in the City of San Diego (58 percent), City of Chula Vista (12 percent), and City of Escondido (9 percent). As indicated in Section 4.9.1, *Existing Conditions*, there are 16 public-use and military airports in the San Diego region. The future development of land uses in areas subject to off-airport air crash hazards could substantially increase the risk of loss of lives and property if those uses are incompatible with safe aircraft navigation. While the proposed Plan includes the Trolley extension to the San Diego International Airport, it does not propose any land use changes or incompatible land uses within the vicinity of public airports. Nonetheless, it is possible that if an aircraft-related accident occurred, a safety hazard could be presented to individuals on the ground within the area. Regional growth in areas located close to other public or military airports or in flight paths could expose people or structures to aircraft accidents.

To prevent incompatible uses in areas of higher aircraft hazard potential, the ALUC has adopted ALUCPs with land use policies and criteria in the interest of public safety. While the ALUCPs cannot prevent aircraft accidents from occurring, they do contain policies and criteria to limit future incompatible uses and emergency response and evacuation plans to minimize safety impacts. As described in Sections 4.9.1 and 4.9.2, the Airport Authority, which is the ALUC for the San Diego region, is required to assist local agencies in ensuring compatible land uses in the vicinity of existing or proposed airports; to coordinate planning at State, regional, and local levels; to prepare and adopt an airport land use plan as required by PRC Section 21675; to review plans or regulations submitted by local agencies; and to review and make recommendations regarding the land uses, building heights, and other issues relating to air navigation safety and promotion of air commerce.

Safety compatibility zones identify areas where distinct levels of risk exist, which ALUCPs use to differentiate allowed and prohibited land uses. The shapes and sizes of the zones are largely based on accident data and other analyses prepared by the FAA. Data have shown that a higher percentage of crashes occur at each end of a runway, with a lower percentage occurring along the length of a runway. As a result, ALUCPs typically restrict land uses to a greater degree at each end of a runway (FAA 2018).

The Department of Defense requires military airfields to adopt AICUZ studies, which assess compatible land uses in the vicinity of a military air station in a way equivalent to ALUCPs. PRC Section 21098 would reduce hazards associated with development near military airports by requiring lead agencies to submit a notice to the military service that would be affected by a proposed General Plan Amendment or significant project located within specific boundaries of a low-level flight path, military impact zone, or special use airspace.

Additionally, development projects would be subject to FAA evaluation. The FAA evaluates proposed development projects for obstruction hazards and potential hazards to air safety. Obstruction standards are regulated by height and whether a proposal is distractive and/or hazardous to a pilot. FAA evaluation would occur where the project proposes certain components that trigger FAA notification, including projects located within a 2-mile radius around public-use airports that exceed a specified height, that could create electronic or visual hazards, or that could increase the attraction of wildlife around airports. There are no specific FAA standards for visual or electronic hazards, and potential hazards are evaluated by the FAA on a case-by-case basis.

Existing regulations, FAA procedures, ALUCPs, and AICUZ studies ensure compatibility between uses and reduce the potential for aircraft accidents. Therefore, adherence to the regulations above would ensure hazards associated with airports or air traffic would be less than significant.

2025 Conclusion

By 2025, increased development would occur near public or military airports. Adherence to the regulations described in Section 4.9.2 would minimize safety hazards associated with airports. Therefore, this impact (HAZ-3) is less than significant for this period.

2035***Regional Growth and Land Use Change***

From 2026 to 2035, regional population is forecasted to increase by 149,500 people (4 percent), 121,650 housing units (9 percent), and 159,728 jobs (9 percent). Approximately 80 percent of the forecasted regional population increase between 2026 and 2035 is in the City of San Diego (71 percent), National City (7 percent), and City of Chula Vista (2 percent).

As described in the 2025 analysis, a portion of this growth would occur near public-use or military airports, particularly those located near existing urban development. It is possible that if an aircraft-related accident occurred, a safety hazard could be presented to individuals on the ground within the area. Regional growth in areas located close to other public or military airports or in flight paths could expose people or structures to aircraft accidents. The future development of land uses in areas subject to off-airport air crash hazards could substantially increase the risk of loss of lives and property if those uses are incompatible with safe aircraft navigation. However, existing regulations, FAA procedures, ALUCPs, and AICUZ studies ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to these regulations and programs would ensure hazards associated with airports or air traffic would be less than significant.

2035 Conclusion

By 2035, increased development would occur near public or military airports. Adherence to the regulations described in Section 4.9.2 would minimize safety hazards associated with airports. Therefore, this impact (HAZ-3) is less than significant for this period.

2050***Regional Growth and Land Use Change***

From 2036 to 2050, regional population is forecasted to increase by 125,725 people (3 percent), 61,433 housing units (4 percent), and 164,843 jobs (8 percent).

Approximately 78 percent of the forecasted regional population increase between 2036 and 2050 is in the City of San Diego (37 percent), City of San Marcos (13 percent), and City of Chula Vista (28 percent).

As described in the 2025 and 2035 analyses, a portion of this growth would occur near public-use or military airports, particularly those located near existing urban development. The future development of land uses in areas subject to off-airport air crash hazards could substantially increase the risk of loss of lives and property if those uses are incompatible with safe aircraft navigation. However, existing regulations, FAA procedures, ALUCPs, and AICUZ studies ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to these regulations and programs would ensure hazards associated with airports or air traffic would be less than significant.

2050 Conclusion

By 2050, increased development would occur near public or military airports. Adherence to the regulations described in Section 4.9.2 would minimize safety hazards associated with airports. Therefore, this impact (HAZ-3) is less than significant for this period.

Exacerbation of Climate Change Effects

The proposed Plan is not expected to exacerbate climate change effects on safety hazards related to public use airports.

HAZ-4 IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN OR RESULT IN INADEQUATE EMERGENCY ACCESS.

ANALYSIS METHODOLOGY

Emergencies that may require evacuation of populated areas include earthquakes, tsunamis, floods, rain-induced landslides, dam failure, wildland fires, hazardous materials incidents, nuclear materials release, and terrorism. The San Diego County Multi-Jurisdictional Hazard Mitigation Plan, the safety elements in local jurisdictions' general plans, as well as Caltrans maps of state routes have been reviewed to determine whether emergency evacuation route designations exist in any of the proposed regional growth and land use changes or transportation network improvements project areas. These routes were evaluated to determine if their effectiveness for emergency evacuation would be affected by the proposed Plan, either in the long term, or in the short term during construction. Impacts on more routine emergency access to properties by law enforcement or fire protection personnel are also addressed.

This section describes existing response plans and the risk of interference with response plans (for example, if multiple development projects are built at the same time). Established evacuation routes are described, and the role of project-level review is discussed. Transportation network improvements and programs affecting identified emergency response plans, emergency evacuation routes, or emergency access are described and evaluated.

IMPACT ANALYSIS**2025*****Regional Growth and Land Use Change***

From 2016 to 2025, regional population is forecasted to increase by 161,338 people (5 percent), 97,661 housing units (8 percent) and 115,328 jobs (7 percent). Approximately 79 percent of the forecasted regional population increase by 2025 is in the City of San Diego (58 percent), City of Chula Vista (12 percent), and City of Escondido (9 percent).

While implementation of the proposed Plan does not directly involve changes to any of the policies or requirements within any of the established emergency plans, it is possible that land uses and development activities implemented by 2025 would have the potential to interfere with emergency plans and procedures if authorities are not properly notified, or multiple projects are constructed simultaneously and multiple

roadways used for emergency routes are concurrently blocked. However, the proposed Plan also encourages more compact development, specifically within Smart Growth Opportunity Areas. Compact land uses are generally more efficient for emergency service responders since urban areas tend to be well served with these facilities and also because the more compact land use pattern better facilitates access to specific sites. As such, emergency response times may improve in the long run.

Emergency plans and programs are in place on countywide, individual jurisdiction, and special district levels that contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans (refer to Section 4.9.2). As required by the individual implementing agency in coordination with the OES, emergency plans and programs are revisited for updates as frequently as every year, as is the case for the San Diego County Multi-Jurisdictional Hazard Mitigation Plan, to adequately plan for growth within the region. This would include the evaluation of established evacuation routes, as described in San Diego County Multi-Jurisdictional Hazard Mitigation Plan. In addition, discretionary projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans. If impacts are determined to be significant at the project level, appropriate mitigation, such as requiring development to provide multiple ingress/egress routes in conformance with State law and local regulations or the identification of alternative traffic routes with appropriate signage, would be required. Therefore, measures are in place to ensure development projects would not impair implementation of or physically interfere with an emergency response or evacuation plan, and this impact is less than significant.

Transportation Network Improvements and Programs

Major transportation network improvements by 2025 include new Managed Lanes on I-5 from Manchester Avenue to Vandegrift; new toll lanes on SR 11 to the Otay Mesa POE; Interchange and Arterial Operational improvements at SR 94 and SR 125, and the Otay Mesa Port of Entry Commercial Vehicle Enforcement Facility (CVEG); and tolling equipment and Regional Border Management System investments on SR 11. Other major network improvements include double-tracking at certain locations on the LOSSAN rail corridor along with a station addition in the Gaslamp Quarter, San Diego.

In general, implementation of the transportation network improvements in and of themselves would not impair or physically interfere with the implementation of any adopted emergency response plan or emergency evacuation plan. By 2025, improvements are planned for the majority of highways identified as evacuation routes in the Emergency Plan discussed above. In addition, expansion of rail lines and other transit improvements may also cause traffic congestion during construction activities, which would temporarily hinder emergency vehicle response or evacuation in the event of an emergency. Particularly in denser urban areas such as downtown, expansion of transit and rail lanes could increase gate down times, thus potentially delaying response time as well.

Under Year 2025 conditions the proposed Plan would improve vehicular delay and congestion within the San Diego region. Additionally, California State law requires drivers to yield the right-of-way to emergency vehicles and also permits emergency vehicles to use opposing lane of travel, the center turn lanes, managed lanes or transit-only lanes. Emergency vehicles can also encroach into on-street bicycle facilities such as Class II Buffered Bike Lanes and Class IV Cycle Tracks to maneuver around pinch points and bottle necks within the roadway. Therefore, in some instances, roadway reconfigurations proposed within the proposed Plan could improve emergency access. For example, a roadway reconfiguration could improve emergency access where a managed lane, transit only lane, or a contiguous center left-turn lane is introduced where it did not previously exist. Generally, multi-lane roadways allow the emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle. The proposed Plan also includes Smart System

Platforms that would allow for an integration of infrastructure and services into a system that manages multiple modes of transportation would make it possible for traffic to be managed in real time; for first responders to quickly respond to incidents; and for police, fire, and other authorities to effectively coordinate emergency evacuations.

In addition, as described above and in Section 4.9.2, emergency plans and programs are in place on countywide, individual jurisdiction, and special district levels that contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans. In addition, discretionary projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure transportation network improvement projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. This impact is less than significant.

2025 Conclusion

By 2025, increased development and transportation network improvements may cause obstruction for emergency response vehicles or result in activities that would cause physical interference in the implementation of an emergency response or evacuation plan. However, adherence to the regulations described in Section 4.9.2 would ensure development and transportation projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. Therefore, this impact (HAZ-4) is less than significant for this period.

2035

Regional Growth and Land Use Change

From 2026 to 2035, regional population is forecasted to increase by 149,500 people (4 percent), 121,650 housing units (9 percent), and 159,728 jobs (9 percent). Approximately 80 percent of the forecasted regional population increase between 2026 and 2035 is in the City of San Diego (71 percent), National City (7 percent), and City of Chula Vista (2 percent).

As described in the 2025 analysis, while land uses and development activities implemented by 2035 would have the potential to interfere with emergency plans and procedures, in general, emergency response times may improve because of more compact development, particularly within Smart Growth Opportunity Areas. In addition, as described in Section 4.9.2, emergency plans and response programs are in place at the countywide, individual jurisdiction, and special district levels that contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans. In addition, discretionary projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure development projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. This impact is less than significant.

Transportation Network Improvements and Programs

The transportation network improvements that would be implemented between 2026 and 2035 include new Managed Lanes and Managed Lane Connectors on SR 15, SR 52, SR 94, SR 78, SR 163, SR 125, I-5, I-8, I-15, I-805. Double-tracking of the LOSSAN rail corridor would continue between 2026 and 2035. The 2035 phase also includes a major new commuter rail line (Route 582) between National City and Sorrento Mesa and light rail investments with SPRINTER, Blue Line, and Orange Line double tracking and grade separations. During this

period, two intermodal transit center Mobility Hub projects would be constructed: the Central Mobility Hub (CMH) in downtown San Diego and the San Ysidro Mobility Hub (SYMh) at the US-Mexico border. There would also be five additional improvements to local arterial streets.

As described in the 2025 analysis, implementation of the transportation network improvements in and of themselves would not impair or physically interfere with the implementation of any adopted emergency response plan or emergency evacuation plan. Any interference with emergency responders would likely occur as a result of improvements to the regional and local street network and from possible delays associated with increased gate down times in denser areas. However, emergency plans and response programs are in place at the countywide, individual jurisdiction, and special district levels that contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans (Section 4.9.2). These plans are periodically evaluated by the implementing agencies in coordination with the OES. In addition, discretionary projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure transportation network improvement projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. This impact is less than significant.

2035 Conclusion

By 2035, increased development and transportation network improvements may cause obstruction for emergency response vehicles or result in activities that would cause physical interference in the implementation of an emergency response or evacuation plan. However, adherence to the regulations described in Section 4.9.2 would ensure development and transportation projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. Therefore, this impact (HAZ-4) is less than significant for this period.

2050

Regional Growth and Land Use Change

From 2036 to 2050, regional population is forecasted to increase by 125,725 people (3 percent), 61,433 housing units (4 percent) and 164,843 jobs (8 percent). Approximately 78 percent of the forecasted regional population increase between 2036 and 2050 is in the City of San Diego (37 percent), City of San Marcos (13 percent), and City of Chula Vista (28 percent).

As described in the 2025 and 2035 analyses, while land uses and development activities implemented by 2050 would have the potential to interfere with emergency plans and procedures, in general, emergency response times may improve because of more compact development, particularly within Smart Growth Opportunity Areas. In addition, emergency plans and response programs are in place at the countywide, individual jurisdiction, and special district level that contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans (Section 4.9.2). In addition, discretionary projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure development projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. This impact is less than significant.

Transportation Network Improvements and Programs

Major transportation network improvements include new Managed Lanes and Managed Lane Connectors on State Routes 52, 56, 54, 125, 905 and Interstates 5, 8, 15, 805. Double-tracking at certain locations on the LOSSAN rail corridor would continue during this period. Three major new commuter rail lines would be constructed, including routes between Downtown San Diego and El Cajon (Route 581); National City to the U.S. Border (Route 582 [Extension]) and Central Mobility to the U.S. Border (Route 583). It also includes double tracking of the SPRINTER, Green Line, and Orange Line. Double tracking and grade separations on the Blue Line also are included.

As discussed in the 2025 and 2035 analysis, implementation of the transportation network improvements in and of themselves would not impair or physically interfere with the implementation of any adopted emergency response plan or emergency evacuation plan. Any interference with emergency responders would likely occur as a result of improvements to the regional and local street network and from possible delays associated with increased gate down times in denser areas. However, emergency plans and response programs are in place at the countywide, individual jurisdiction, and special district level that contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans (Section 4.9.2). These plans are periodically evaluated by the implementing agencies in coordination with the OES. In addition, discretionary projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure transportation network improvement projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. This impact is less than significant.

2050 Conclusion

By 2050, increased development and transportation network improvements may cause obstruction for emergency response vehicles or result in activities that would cause physical interference in the implementation of an emergency response or evacuation plan. However, adherence to the regulations described in Section 4.9.2 would ensure development and transportation projects would not impair implementation of or physically interfere with an emergency response or evacuation plan. Therefore, this impact (HAZ-4) is less than significant for this period.

Exacerbation of Climate Change Effects

The proposed Plan could exacerbate potential climate change effects on emergency response and access. Climate change may cause events like wildfire or flooding to obstruct roads for emergency vehicles. The proposed Plan's increased development and transportation network improvements could also obstruct emergency response vehicles or result in activities that interfere with implementation of emergency response or an evacuation plan. Even though the proposed Plan would adhere to regulations to avoid this, climate change effects could make this more difficult, though it is uncertain to what degree climate change hazards could obstruct roads for emergency access.

