4.9 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the hazards and hazardous materials impacts of the proposed Plan. The information presented was compiled from multiple sources identified throughout the section.

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 regulations, including those administered by the U.S. Environmental Protection Agency (USEPA), the California Environmental Protection Agency (Cal/EPA) the U.S. Occupational Safety and Health Administration, the U.S. Department of Transportation (USDOT), the U.S. Nuclear Regulatory Commission, and others. The California Health and Safety Code (H&SC), in Section 25501, defines hazardous material as follows:

(n) (1) “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 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 are wastes that:

...because of its quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness [or] pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, disposed of, or otherwise managed. (California H&SC Section 25141(b))

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

Use, Transport and Disposal of Hazardous Materials

Many activities in the San Diego region involve the use, transport, or disposal of hazardous materials and wastes. The use of hazardous materials is commonplace in commercial, industrial, and manufacturing activities, and many businesses within the San Diego region are permitted to handle and transport hazardous materials. There are historic and existing land uses that have generated hazardous waste as part of operations. Existing and past generators of hazardous materials in the region include commercial uses such as painters, dry cleaners, and photographers, and industrial uses such as automotive service stations, sheet metal works, metal scrap yards, truck yards, cement and lime warehouses, coal yards, battery manufacture, and electrical substations. In addition, structures built prior to 1978 often contain hazardous materials, such as asbestos and lead-based paint. Industrial facilities, which include approximately 70 percent military uses, are generally located in inland cities in the north, south, and east of the San Diego region.

Concentrations of contaminants in soil and groundwater, as well as the lateral and vertical extent of the areas of impacted soil and groundwater, can change substantially over time based on the nature of the contaminants identified and the local geology, hydrology, and soil characteristics associated with a particular impacted site.

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 are located in the San Diego region and transverse from the border of Mexico, north to as far as Dana Point in Orange County, and east as far as Alpine. The two types of lines include gas transmission pipelines, which are generally large-diameter pipelines that operate at pressures above 200 psi and transport gas from supply points to the gas distribution system, and high-pressure distribution mains. These are pipelines that operate at pressures above 60 psi and deliver gas in smaller volumes to the medium-pressure distribution system.

There are 42 registered hazardous waste transporters within the San Diego region (DTSC 2015). Shipments of hazardous materials and wastes include a wide variety of chemicals, such as petroleum products, medical waste, and radioactive materials. On a tonnage basis, petroleum products make up the majority—more than 80 percent—of hazardous material moved within the nation (USDOT 1998). Aside from rail and pipeline, hazardous materials transported within the San Diego region use many of the same freeways, arterials, and local streets as other traffic.

Identification of Contaminated Sites

A variety of government data sources identify sites where hazardous substances may have been released or may have created a hazardous condition on-site. The following databases include sites in the San Diego region:

- DTSC EnviroStor database (Cortese List)
- Leaking Underground Storage Tank Sites by County and Fiscal Year 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 (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 USEPA.
- 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 Case Listing of contaminated sites that have previously or are currently undergoing environmental investigations or remedial actions.

These databases are discussed in more detail in the paragraphs below. Sites listed in the RCRIS and the Hazardous Materials Establishment databases are not included in this discussion because the sites in these databases are already listed in other databases.

**DTSC EnviroStor Database (Cortese List)**

California Government Code Section 65962.5 requires Cal/EPA to prepare an annual Hazardous Waste and Substances List, commonly referred to as the Cortese List. The DTSC EnviroStor database (Cortese List) identified 21 hazardous waste and substances sites within the San Diego region as shown on Table 4.9-1 (DTSC 2014). Most of the Cortese List sites are related to existing or past military activities.

**SWRCB GeoTracker Database**

The SWRCB maintains the GeoTracker database of the following types of sites in California: permitted USTs, leaking underground storage tanks (LUSTs), Department of Defense (DOD) sites, landfills, and Spills-Leaks-Investigations-Cleanups (SLIC) sites. According to GeoTracker, there are over 6,600 LUST sites in the San Diego region (SWRCB 2014). Many of these sites have been remediated to the satisfaction of the respective oversight agency; however, thousands of sites are open for assessment and remediation.
### Table 4.9-1

**EnviroStor Hazardous Waste and Substances Sites in the San Diego Region**

<table>
<thead>
<tr>
<th>Site/ Facility Name</th>
<th>Site / Facility Type</th>
<th>Cleanup Status</th>
<th>Address Description</th>
<th>City</th>
<th>Zip</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fallbrook NWS</td>
<td>State Response</td>
<td>Active</td>
<td>14 square miles; 53 miles north of San Diego, CA</td>
<td>Fallbrook</td>
<td>92028</td>
<td>San Diego</td>
</tr>
<tr>
<td>Imperial Beach Outlying Landing Field</td>
<td>Military Evaluation</td>
<td>Active</td>
<td>Off Route 75 bordering the landing field</td>
<td>Imperial Beach</td>
<td>92032</td>
<td>San Diego</td>
</tr>
<tr>
<td>Border Field State Park</td>
<td>State Response</td>
<td>Backlog</td>
<td>1/2 mile north of U.S. border with Mexico</td>
<td>Imperial Beach</td>
<td>92104</td>
<td>San Diego</td>
</tr>
<tr>
<td>Camp Lockett (J09CA707800)</td>
<td>State Response</td>
<td>Backlog</td>
<td>Campo</td>
<td>Campo</td>
<td>91906</td>
<td>San Diego</td>
</tr>
<tr>
<td>Naval Amphibious Base-Coronado (MMRP)</td>
<td>State Response</td>
<td>Active</td>
<td>Naval Amphibious Base, Coronado</td>
<td>San Diego</td>
<td>92101</td>
<td>92155</td>
</tr>
<tr>
<td>Naval Base San Diego</td>
<td>State Response</td>
<td>Active</td>
<td>San Diego Bay, 113 Naval Base 610</td>
<td>San Diego</td>
<td>92136</td>
<td>San Diego</td>
</tr>
<tr>
<td>San Diego Space Surveillance Station</td>
<td>State Response</td>
<td>Active</td>
<td>Naval Space Service Field Station Brownfield, 989 Havitage Road</td>
<td>San Diego</td>
<td>91132</td>
<td>San Diego</td>
</tr>
<tr>
<td>Sunflower Properties Inc.</td>
<td>State Response</td>
<td>Active</td>
<td>9755 Distribution Avenue</td>
<td>San Diego</td>
<td>92121</td>
<td>San Diego</td>
</tr>
<tr>
<td>Naval Amphibious Base-Coronado</td>
<td>State Response</td>
<td>Active</td>
<td>Naval Amphibious Base, Coronado</td>
<td>San Diego</td>
<td>92155</td>
<td>San Diego</td>
</tr>
<tr>
<td>San Diego Nise-West (NOCCSC) Old Town Campus</td>
<td>State Response</td>
<td>Active</td>
<td>4297 Pacific Coast Highway</td>
<td>San Diego</td>
<td>92186</td>
<td>San Diego</td>
</tr>
<tr>
<td>MCB Camp Pendleton</td>
<td>Federal Superfund - Listed</td>
<td>Active - Land Use Restrictions</td>
<td>125,000 acres; 35 miles north of San Diego, CA</td>
<td>Oceanside</td>
<td>92055</td>
<td>San Diego</td>
</tr>
<tr>
<td>Naval Base San Diego MMRP</td>
<td>State Response</td>
<td>Active</td>
<td>San Diego Bay, 113 Naval Base 610</td>
<td>San Diego</td>
<td>92136</td>
<td>San Diego</td>
</tr>
<tr>
<td>MCAS Miramar</td>
<td>State Response</td>
<td>Active</td>
<td>Off of Miramar Boulevard</td>
<td>San Diego</td>
<td>92136</td>
<td>San Diego</td>
</tr>
<tr>
<td>North Island Naval Air Station</td>
<td>State Response</td>
<td>Active</td>
<td>2,520 acres; adjacent to Coronado, CA</td>
<td>San Diego</td>
<td>92135</td>
<td>San Diego</td>
</tr>
<tr>
<td>Chatham Brothers Barrel Yard</td>
<td>State Response</td>
<td>Active</td>
<td>2257 Bernardo Ave</td>
<td>Escondido</td>
<td>92029</td>
<td>San Diego</td>
</tr>
<tr>
<td>Camp Elliott-J09ca0067</td>
<td>State Response</td>
<td>Active</td>
<td>Northern portion of San Diego</td>
<td>San Diego</td>
<td>92103</td>
<td>San Diego</td>
</tr>
<tr>
<td>UCSD (Camp Matthews)-J09CA111001</td>
<td>State Response</td>
<td>Backlog</td>
<td>12 Miles North of San Diego</td>
<td>La Jolla</td>
<td>92103</td>
<td>San Diego</td>
</tr>
<tr>
<td>Borrego Sites (J09ca701100 and J09ca701800 and Other Anza Borrego Impact Areas)</td>
<td>Military Evaluation</td>
<td>Active</td>
<td>Anza-Borrego Desert State Park</td>
<td>Borrego Springs</td>
<td>92004</td>
<td>San Diego</td>
</tr>
<tr>
<td>Naval Submarine Base San Diego</td>
<td>State Response</td>
<td>Active</td>
<td>140 Sylvester Road (Code 12)</td>
<td>San Diego</td>
<td>92106</td>
<td>San Diego</td>
</tr>
<tr>
<td>Point Loma Complex (SPAWAR-PLC)</td>
<td>State Response</td>
<td>Active</td>
<td>Sylvester &amp; Humphries</td>
<td>San Diego</td>
<td>92152</td>
<td>San Diego</td>
</tr>
<tr>
<td>Tri-City Plating, Incorporated</td>
<td>State Response</td>
<td>Active</td>
<td>1307 South Coast Highway</td>
<td>Oceanside</td>
<td>92054</td>
<td>San Diego</td>
</tr>
</tbody>
</table>

Source: DTSC 2015
4.9 Hazards and Hazardous Materials

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 of San Diego Department of Environmental Health (DEH).

**SWRCB 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 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 60 “active” CDO and/or CAO sites are listed in the San Diego region (Cal/EPA 2014).

**SWIS 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 152 facility/site listings within the San Diego region that are under the jurisdiction of the County of San Diego Local Enforcement Agency (SWIS 2014).

**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, or otherwise possessed by the United States. FUDS are located throughout the United States. In many cases, the ownership of these properties have 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 debris removal; and Potentially Responsible Party sites.

According to a list prepared by USACE in September 2012, there are 38 FUDS in the San Diego region (USACE 2014). Many FUDS have potential hazardous waste contamination problems such as disposal areas and leaking underground fuel tanks (LUFTs). Other FUDS utilized practice rounds for training, and some FUDS used live munitions and explosives. The live munitions that were fired but did not detonate are known as unexploded ordnance, or UXO. The UXO that remain on FUDS properties today pose the greatest safety hazard to the public, if they are disturbed (USACE 2014). Many FUDS in San Diego County are under investigation by USACE to identify and remediate potential hazards.
SCHOOLS

The public school system in the San Diego region has roughly 44 school districts with about 742 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 2014). 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.

AIRPORTS

In the San Diego region, the relationships of transportation, transit, and mobility, and of population growth to hazards associated with or affecting aircraft in flight are the responsibility of the San Diego County Regional Airport Authority. One of the Authority’s responsibilities is to serve as the Airport Land Use Commission (ALUC), which is charged with creating or updating Airport Land Use Compatibility Plans (ALUCPs) for the region’s 12 public-use and four military airports in accordance with applicable state and federal laws (Figure 4.9-1).

ALUCPs have been adopted for 14 of the 16 public-use and military airports in the region. Those airports, with the year of adoption of the latest ALUCP, are:

- Agua Caliente Airport (2011)
- Borrego Valley Airport (2011)
- Brown Field (2010)
- Fallbrook Community Airpark (2011)
- Gillespie Field (2010)
- Jacumba Airport (2011)
- MCB Camp Pendleton (2008)
- Marine Corps Air Station Miramar (2011)
- McClellan-Palomar Airport (2011)
- Montgomery Field (2010)
- Oceanside Municipal Airport (2010)
- Ocotillo Airport (2011)
- Ramona Airport (2011)
- SDIA – Lindbergh Field (2014)

The two airports that do not have ALUCPs are both military airfields: the Navy’s Outlying Landing Field Imperial Beach, and Naval Air Station North Island. The DOD requires military airfields to adopt Air Installation Compatible Use Zone (AICUZ) studies, which assess compatible land uses in the vicinity of a military air station in a way equivalent to ALUCPs.
Figure 4.9-1
San Diego Region Airports
April 2015
EMERGENCY RESPONSE AND EVACUATION

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.

The Emergency Plan provides guidance on command and control, communications, transportation, sheltering considerations, and care and protection of animals. Disasters for which the plan is prepared include earthquakes, floods, pandemic influenza, nuclear accident (San Onofre), terrorism, tsunamis, and wildland fires. Any of these disasters could involve evacuation of affected areas. The Emergency Plan assumes that the primary mode of transportation used during jurisdictional evacuation efforts will be privately owned automobiles.

If evacuation is required, local jurisdictions work with the Operational Area Emergency Operations Center, law enforcement officials, Caltrans, the California Highway Patrol, County Public Works, and other applicable agencies/departments to identify evacuation points and transportation routes. In addition, transportation points will be identified to collect and transport people without transportation resources to evacuation points. Response will be coordinated by the Operational Area Emergency Operations Center.

Any large-scale response to an incident, including those resulting in the evacuation of more than two impacted communities, will need to be coordinated through the Operational Area Emergency Operations Center operating under a unified command. The Coordinator of Emergency Services will coordinate the overall multijurisdictional evacuation effort and the Operational Area Law Enforcement Coordinator will be responsible for coordinating Operational Area-wide evacuation activities. Evacuation operations in the field will be 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 Emergency Plan as the primary transportation routes for an evacuation effort in the San Diego region: I-5, I-8, I-15, I-805, and SRs 52, 54, 67, 75, 76, 78, 94, 125, 163, and 905.

WILDLAND FIRES

Several factors such as the climate, precipitation levels, topography, and native vegetation make the San Diego region susceptible to wildland fires. The extended droughts characteristic of the region’s Mediterranean climate result in large areas of dry vegetation that provide fuel for wildland fires. The most critical times of year are late summer and fall when Santa Ana winds bring hot, dry desert air into the region. The hot winds quickly dry vegetation, thereby increasing the flammability of natural fuel. Once fires begin, the high winds fan the flames, sometimes catastrophically increasing the destructive intensity of the conflagration. As urbanization spreads and reaches into wildland areas, the threat of wildland fire to human populations and property increases.

Wildfires occur in both undeveloped, rural areas and urbanized areas of the San Diego region. While urban areas are highly developed with buildings, streets, and hardscape, some have canyons and other areas of native vegetation susceptible to wildland fires. The largest wildland fire in California history was the Cedar Fire of 2003, which burned 280,278 acres, 2,232 housing units, and 588 other buildings, whipped by Santa Ana winds, swept into residential areas, and even crossed highways including Interstate 15.
Wildland Urban Interface (WUI) Zones

The California Department of Forestry and Fire Protection (CAL FIRE) identifies areas of responsibility for fire prevention and suppression in Fire Hazard Severity Zones. Areas of responsibility may be federal, state, or local. Fire Hazard Severity Zones are further designated as Very High Fire Hazard Severity Zone and Non-Very High Fire Hazard Severity Zone (Figure 4.9-2). A majority of the region is designated in the Very High Fire Hazard Severity Zone. In these zones, all new building must comply with California Building Code (CBC) requirements regarding Standards of Quality for materials, systems, and methods of construction.

Two categories of WUI zones around areas of residential density greater than 0.05 du/ac (development) are designated in the San Diego region: Threat Zones and Defense Zones. Defense Zones are within 0.25 mile of development; Threat Zones are 0.25 to 1.5 miles from development (Figure 4.9-3). The delineation of Threat Zones allows prioritizing areas of risk to life and property from wildfire and may serve as a fundamental land attribute for assigning regional policy for land use and fire management. Because of the correlation between development and major transportation corridors, significant elements of the region’s transportation network are in or near WUI designated Threat Zones.

4.9.2 REGULATORY SETTING

FEDERAL LAWS, REGULATIONS, PLANS, AND POLICIES

Hazardous Materials

Businesses that handle/generate hazardous materials within the region are monitored by USEPA; San Diego Regional Water Quality Control Board (RWQCB); the County of San Diego DEH Hazardous Materials Division (HMD); Local Enforcement Agency (LEA) programs; and the County of San Diego Air Pollution Control District (SDAPCD). Generators of hazardous waste fall into two categories: large-quantity generators (LQGs) and small-quantity generators (SQGs). 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 100 kilograms (kg) and less than 1,000 kg (2,200 pounds) of hazardous waste per month. 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 a USEPA 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 a USEPA identification number, which must be used for traceability on all hazardous waste documentation.

Pursuant to federal law, all such generators must register with USEPA for record-keeping and recording. The USEPA Unified 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. Cal/EPA oversees the implementation of the program as a whole.
Figure 4.9-3
San Diego County
Wildland Urban Interface
April 2015

Zones of Influence
- Development Density greater than 0.05 du/ac
- Defense Zone Buffer within 0.25 miles
- Threat Zone Buffer 0.25 to 1.5 miles

Source: CalFire 2007
The Unified Program is implemented at the local level by 84 government agencies certified by the Secretary of Cal/EPA. These Certified Unified Program Agencies (CUPAs) have typically been established as a function of a local environmental health or fire department. The CUPA is the local administrative agency that coordinates the following six programs regulating hazardous materials and hazardous wastes:

- Hazardous Waste
- Underground Storage Tanks (USTs)
- Aboveground Storage Tanks (ASTs)
- Hazardous Materials Disclosure (HMD)
- Hazardous Materials Business Plan (HMBP)
- California Accidental Release Program (CalARP)

The County of San Diego DEH HMD has been certified by Cal/EPA 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.

Transportation of hazardous materials by truck and rail is regulated by USDOT. The USDOT regulations establish criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code. The California Health Services Department regulates the haulers of hazardous waste. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the Department of Toxic Substances Control (DTSC). The DTSC maintains a list of active registered hazardous waste transporters throughout California.

**Chemical Accident Prevention Provisions**

The Chemical Accident Prevention Provisions (40 CFR Part 68) require USEPA 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, which requires companies using more than a threshold amount of specified regulated substances to develop an RMP in compliance with USEPA Risk Management Program regulations. The RMP rule includes a List of Regulated Substances under section 112(r) of the Clean Air Act. RMPs are required to conduct a hazard assessment, including 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 USEPA every 5 years. In California, responsibility for the Risk Management Program is delegated to the Office of Emergency Services. The RMP requirements of Clean Air Act Section 112(r) are part of the California Accidental Release Prevention (CalARP) program. The list of federally regulated substances and federally regulated flammable substances and their threshold quantities can be accessed online from the OES website (Cal OES 2015).

**Occupational Safety and Health Administration (OSHA)**

Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthful workplace. OSHA's mission is to ensure safe and healthful workplaces by setting and enforcing standards and by providing training, outreach, education, and assistance.
Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC Section 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. USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements. USEPA recovers costs from financially viable individuals and companies once a response action has been completed. It developed risk-based “regional screening levels” for chemical contaminants at Superfund sites. RSLs 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 Department of Toxic Substances Control (DTSC).

The Superfund Amendments and Reauthorization Act (SARA) of 1986 emphasized the importance of permanent remedies and innovative treatment technologies to clean up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased involvement of the states in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion. SARA also authorized the Emergency Planning and Community Right to Know Act, which is described below.

Emergency Planning and Community Right to Know Act

The Emergency Planning and Community Right to Know Act (EPCRA) was enacted in 1986 in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. Key provisions include:

- Sections 301 through 303. Emergency Planning – Local governments are required to prepare chemical emergency response plans, and to review plans at least annually. State governments are required to oversee and coordinate local planning efforts. Facilities that maintain Extremely Hazardous Substances (EHS) on-site in quantities greater than corresponding threshold planning quantities must cooperate in emergency plan preparation.
- Section 304. Emergency Notification – Facilities must immediately report accidental releases of EHS chemicals and “hazardous substances” in quantities greater than corresponding Reportable Quantities (RQs) defined under CERCLA to state and local officials. Information about accidental chemical releases must be available to the public.
- Sections 311 and 312. Community Right-to-Know Requirements – Facilities manufacturing, processing, or storing designated hazardous chemicals must make Material Safety Data Sheets (MSDSs) available to state and local officials and local fire departments. MSDSs describe the properties and health effects of these chemicals. Facilities must also report, to state and local officials and local fire departments, inventories of all on-site chemicals for which MSDSs exist. Information about chemical inventories at facilities and MSDSs must be available to the public.
- Section 313. Toxics Release Inventory (TRI) – Facilities must complete and submit a toxic chemical release inventory form (Form R) annually. Form R must be submitted for each of the over 600 TRI chemicals that are manufactured or otherwise used above the applicable threshold quantities.
Section 322. Trade Secrets – Facilities are allowed to withhold the specific chemical identity from the reports filed under Sections 303, 311, 312 and 313 of EPCRA if the facilities submit a claim with substantiation to USEPA (USEPA 2014a).

EPCRA Sections 301 through 312 are administered by USEPA’s Office of Emergency Management. USEPA’s Office of Information Analysis and Access implements EPCRA’s Section 313 program. In California, EPCRA is implemented through the California Accidental Release Prevention Program.

**Hazardous Materials Transportation Act**

The Hazardous Materials Transportation Act (HMTA) 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” (USEPA 2014b).

The HMTA 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.

**Resource Conservation and Recovery Act of 1976**

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC Section 6901 et seq.) gives USEPA the authority to control hazardous waste from the “cradle-to-grave”, including the generation, transportation, treatment, storage, and disposal of hazardous waste. Aspects of RCRA related to hazardous waste include provisions to reduce or eliminate the generation of hazardous waste, regulate underground storage tanks holding petroleum products or certain other hazardous substances, and regulate the transport, treatment, storage, and disposal of hazardous waste. The RCRA also addresses hazardous waste disposal facility inspection, enforcement issues, and the identification and listing of hazardous waste. The Hazardous and Solid Waste Amendments (HSWA) 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.

**Airport Safety**

**Federal Aviation Administration Functions**

The Federal Aviation Administration (FAA) has primary responsibility for the safety of civil aviation. The FAA’s major functions related to hazards include:

- Developing and operating a common system of air traffic control and navigation for both civilian and military aircraft;
• Developing and implementing programs to control aircraft noise and other environmental effects of civil aviation;
• Regulating U.S. commercial space transportation; and
• Conducting reviews to determine that the safety of persons and property on the ground are protected.

**Federal Aviation Regulations, Notice of Proposed Construction or Alteration**

The FAA imposes height restrictions in order to prevent obstructions to navigable airspace to protect flights and surrounding structures. In certain cases, the FAA should be notified of proposed development pursuant to Section 77.11 of Federal Aviation Regulations. The notification of proposed development provides a basis for:

• Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;
• Determinations of the possible hazardous effect of the proposed construction or alteration of air navigation;
• Recommendations for identifying 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; and
• Charting and other notification to airmen of the construction or alteration.

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 U.S. Department of Defense (DOD). The objective of this program is to encourage compatible uses of public and private lands in the vicinity of 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 (APsZ) is an area at military airfields that is beyond the Clear Zone. Clear Zones are the area immediately beyond the end of the runway, which have 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 beyond the Clear Zone which possesses a significant potential for accidents. APZ-2 is an area beyond APZ-1 having 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.
National Disaster/Natural Disaster

Disaster Mitigation Act of 2000

The Disaster Mitigation Act (DMA) of 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for state, local, and Indian Tribal governments as a condition of mitigation grant assistance. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for state, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. DMA 2000 also established a new requirement for local mitigation plans and authorized up to 7 percent of HMGP funds available to a state for development of state, local, and Indian Tribal mitigation plans (FEMA 2015).

The Robert T. Stafford Disaster Relief and Emergency Assistance Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Title 40 CFR Sections 206.31–206.48) provides the statutory and regulatory framework for most Federal disaster response activities especially as they pertain to FEMA and FEMA program. It allows for a presidential declaration of an emergency or a declaration of a major disaster, which 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

Hazardous Waste Control Law

California’s own hazardous waste laws are collectively known as the Hazardous Waste Control Law. 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.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP) program (Health and Safety Code Section 25531-25543.3) implements the federal RMP program for the accidental airborne release of substances regulated under Section 112 of the Clean Air Act (42 USC Section 7412(r)), with certain additions specific to California. CalARP 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. In the San Diego region, the CUPA is the County of San Diego DEH.
4.9 Hazards and Hazardous Materials

**Department of Toxic Substances Control**

The 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, one of the six environmental programs at the local level consolidated within the CUPA Program.

The DTSC Enforcement and Emergency Response Program (Enforcement Program) is composed of multiple program components. The Enforcement Program conducts inspections and takes enforcement action at facilities for which permits have been issued by DTSC. The Enforcement Program inspects and takes enforcement against transporters, some generators of hazardous waste, and electronic waste handlers. And, the Enforcement Program conducts CUPA oversight, leads Environmental Justice activities, implements the Toxics in Consumer Product Laws, provides compliance assistance, and has the only sworn peace officer, criminal investigators in Cal/EPA. In addition to these enforcement activities, the Enforcement Program is responsible for various emergency response activities such as certain emergency off-highway and illegal drug lab cleanups (DTSC 2015).

EnviroStor is a search tool for DTSC that contains information on contaminated sites in California, as well as information on permit-documents. 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.

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. Each entry in the database contains a report that includes information on the current address, site status, past contaminating uses, history of the site, current and historical toxic substances present, and land use restrictions, potential environmental impacts of toxic substances present, and completed or planned projects. Sites that were once listed as contaminated but have been cleaned up or have had the project completed are also specially listed. The EnviroStor web page also contains tools with which to search through permitted hazardous materials facilities in California. Information on these sites includes permit type and cleanup status, as well as the location of the facility by address, city, county, and zip code. The reports on these facilities include site history and DTSC supervising agents, as well as current and completed decontamination and containment projects (DTSC 2015).

**Hazardous Materials Business Plan Program**

The purpose of the Hazardous Materials Business Plan (HMBP) Program (Health and Safety Code Sections 25500-25519) is to prevent or minimize damage to public health and safety and the environment from a release or threatened release of hazardous materials. It 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 (40 CFR, Part 355, Appendix A) 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.
4.9 Hazards and Hazardous Materials

**Aboveground Petroleum Storage Act**

The Aboveground Petroleum Storage Act (ASPA) transfers the authority and responsibility of ASTs from the SWRCB and RWQCB to the CUPAs. The APSA requires owner/operators of a regulated tank facility to prepare and implement a Spill Prevention Control & Countermeasure 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 of 2001**

The California Human Health Screening Levels (CHHSLs) were developed as a tool to assist in the evaluation of contaminated sites for potential adverse threats to human health. Preparation of the CHHSLs was required by The California Land Environmental Restoration and Reuse Act of 2001.

The CHHSLs are concentrations of 54 hazardous chemicals in soil or soil gas the Cal/EPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment (OEHHA) an agency under the umbrella of Cal/EPA and are contained in its report entitled Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil (OEHHA and Cal/EPA 2004). The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of 1 in 1 million and a hazard quotient of 1.0 for noncancerous health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by USEPA and Cal/EPA. The CHHSLs 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 CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/industrial CHHSLs) at the site.

**Emergency Response to Hazardous Materials Incident**

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by Cal Emergency Management Agency (EMA) and includes response to hazardous materials incidents. Cal EMA coordinates the response of other agencies, including Cal/EPA, California Highway Patrol, California Department of Fish and Wildlife (CAL FIRE), Regional RWQCB, SDAPCD, the City of San Diego Fire Department, and DEH Hazardous Incident Response Team (DEH-HIRT).

**Government Code Section 65962.5 (a) Cortese List**

The Hazardous Waste and Substance Sites Cortese List is a planning document used by the state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires Cal/EPA to develop, at least annually, an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous-material-release information for the Cortese List. (The Cortese list was last updated April 1, 2001; it has been superseded by the EnviroStor database.)
Underground Storage Tank (UST) Act and Title 23 of the California Code of Regulations

The UST monitoring and response program is required under Chapter 6.7 of the California H&SC and Title 23 of the CCR. The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning USTs. The County of San Diego DEH is the local administering agency for this program.

California Education Code (CEC) Section 17210 et seq.

The CEC establishes the law for California public education. The CEC 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 be completed prior to acquiring a school site or engaging in a construction project. Depending on the outcome of the Phase I Environmental Site Assessment, a Preliminary Endangerment Assessment (PEA), including the collection and submittal of samples for analysis, may be warranted. Depending upon the results of the PEA, remediation may be necessary.

Airport Safety

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. As to proposed school sites, if Caltrans does not support the proposed 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.

San Diego County Regional Airport Authority

San Diego County Regional Airport Authority (SDCRAA) was established under state law to protect the safety and welfare of the general public and the ability of airports to operate now and in the future (SDCRAA 2014). As the ALUC the SDCRAA is responsible for creating or updating for the region's ACLUPs.

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 (SDCRAA 2014).

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.

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**

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 an NOP 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; or
- Within special use airspace as defined in PRC Section 21098.
Disaster Recovery/Natural Disasters

2013 State Hazard Mitigation Plan

The State Hazard Mitigation Plan (SHMP) represents 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 30, 2013 as an Enhanced State Mitigation Plan, the 2013 plan update 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 (CAL EMA 2014).

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 (DAA)

The DAA provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The DAA 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 DAA is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

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

In San Diego County, the County Office of Emergency Services (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 (OES 2014).

The UDC is the governing body of the Unified San Diego County Emergency Services Organization. The UDC is composed of the Chair of the San Diego County 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) (UDC 2014). 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.
It is intended to be used as a template for the development of other jurisdictional evacuation plans and will support or supplement the evacuation plans prepared and maintained by each local jurisdiction. The Emergency Plan has been designed to follow the state mandated Standardized Emergency Management System (SEMS) and the federal mandated National Incident Management System (NIMS). SEMS and NIMS are based on the Incident Command System and the Multiple Agency Coordination System, both of which have been used by fire departments for years. The OES is certified with the Emergency Management Accreditation Program (OES 2014). 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 (OES 2014). These are:

- 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 San Diego County Operational Area Emergency Water Contingencies Plan
- The Unified San Diego County Emergency Services Organization Operational Area Energy Shortage Response Plan
- The Unified San Diego County Emergency Services Organization Recovery Plan
- The San Diego County Multi-Jurisdictional Hazard Mitigation Plan
- The San Diego Urban Area Tactical Interoperable Communications Plan
- The San Diego County Draft Terrorist Incident Emergency Response Protocol

**Fire Safety**

A wildfire in the San Diego region triggers responses from a network of many fire departments, including CAL FIRE, the U.S. Forest Service, and DOD installation forces on military bases; municipal fire departments of the region’s cities; and County Fire Protection Districts and County Service Areas. Responses to wildland fires are coordinated through the office of the Regional Director of CAL FIRE. Each jurisdiction or agency is tasked with responding to fires in its service area, but all also participate in a long-standing Mutual Aid Agreement to assist any of the member departments if needed (Steinhoff, pers. comm., 2011).

**California Fire Code (CFC)**

The CFC is Chapter 9 of CCR Title 24. It is created by the California Building Standards Commission and is based on the IFC created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the CBC use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

**CAL FIRE**

CCR Title 14 Division 1.5 Section 1270 et seq. establishes the regulations for CAL FIRE and is applicable in all State Responsibility Areas (SRAs)—areas where CAL FIRE is responsible for wildfire protection. Among other things, Title 14 establishes minimum standards for emergency access, fuel modification, setback to property line, signage, and water supply.
PRC Sections 4201–4204 direct CAL FIRE to map fire hazards within State Responsibility Areas, based on relevant factors such as fuels, terrain, and weather. These statutes were passed after significant damage to urban and residential development from wildland fires; consequently, wildfire hazards are described in the statutes principally according to their potential for igniting buildings.

Fire planning incorporates concepts of the National Fire Plan, the California Fire Plan, individual CAL FIRE Unit Fire Plans, and Community Wildfire Protection Plans (CWPPs). Fire Plans outline the fire situation within each CAL FIRE Unit. CWPPs do the same for communities. Each identifies prevention measures to reduce risks, informs and involves the local community or communities in the area, and provides a framework to diminish potential losses due to wildfire. Planning includes other state, federal, and local government agencies as well as Fire Safe Councils (CAL FIRE 2011).

Additionally, WUI zones are areas identified by CAL FIRE as “Fire Hazard Severity Zones” that are at significant risk from wildfires. Lands in the state are classified by the CAL FIRE Director in accordance with the severity of wildfire hazard expected in those areas and the responsibility for fire protection, so that measures may be identified that will reduce the potential for losses to life, property, and resources from wildfire.

**State Fire Laws**

State fire laws are set forth in Sections 13000 et seq. of the California H&SC, which include statutes concerning building standards (as also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The state Fire Marshal enforces these laws and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

In the wake of the 2003 fire siege, the California Building Standards Commission in 2005 approved the Office of the State Fire Marshal’s emergency regulations amending CCR Title 24, Part 2 (2007 CBC). Standards for development in fire hazard zones, applicable principally to new buildings, were incorporated into the CBC and are known as the Wildland-Urban Interface Fire Area Building Standards.

The broad objective of the Wildland-Urban Interface Fire Area Building Standards is to establish minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for buildings in WUI areas. The use of ignition-resistant materials and design to resist flames or burning embers from a vegetation fire is California's effort to control the repeating cycle of interface fire disasters.

**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 (EHSs) who take part in a continuous education program to ensure consistency and uniformity during inspections. These inspections determine compliance with:
4.9 Hazards and Hazardous Materials

- California Health and Safety Code: Chapters 6.5, 6.67, 6.7, and 6.95
- Medical Waste Management Act: Division 104, Part 14
- CCR Titles 19, 22 and 23
- San Diego County Code of Regulatory Ordinances: Title 6, Division 8, Chapters 9, 10, 11 and 12 (County of San Diego 2015)

County of San Diego Site Assessment and Mitigation (SAM) Program

The San Diego County SAM Program, within the Land and Water Quality Division of the County of San Diego DEH, consists of project managers, field technicians, supervisors, and support staff whose primary purpose 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 H&SC and the CCR. The SAM’s Voluntary Assistance Program (VAP) also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances. The SAM maintains an environmental assessment case listing at http://www.sandiegocounty.gov/content/sdc/deh/lwqd/sam_homepage.html.

County of San Diego Site Assessment and Mitigation (SAM) Case Listing

The primary goal of the DEH Site Assessment and Mitigation Program (SAM) is to protect public health, water resources, and the environment from releases of contaminants by providing oversight of assessments and cleanups in accordance with the California H&SC and the CCR. The SAM’s Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) 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. There is some overlap with the information in other regulatory databases; however, the list also contains sites that often are not covered by some of the larger regulatory databases. If a project is submitted to the County for discretionary review and is located on a site found on the SAM list, the project’s status must be determined and any ongoing remediation requirements coordinated with the DEH SAM project manager.

County of San Diego Underground Storage Tank Program

The DEH HMD UST Program administers and enforces federal and state laws and regulations and local ordinances for the construction/installation, modification, upgrade, and removal of USTs in San Diego County. 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.
San Diego County Hazardous Materials Area Plan

The County of San Diego DEH HMD established the San Diego County Hazardous Materials Area Plan (Area Plan) based on requirements of Chapter 6.95 of the California H&SC, Title 19 of the CCR and SARA Title III 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 Area Plan serves the majority of the cities in the San Diego region.

Voluntary Assistance Program (VAP)

The DEH VAP is a voluntary option for project oversight on various types of contaminated properties. 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. Examples of projects that have been processed through the VAP include conversion of a property from agricultural to residential land use, conversion of a gas station property to a retail facility, a release of solvent from a dry cleaners, review of work plans prior to initiating work, and review of assessment and mitigation reports for lenders. The most commonly submitted documents are work plans, Phase I ESA reports, Phase II ESA reports, and health risk evaluations (County of San Diego 2015).

Airport and Flight Safety

Airport Land Use Compatibility Plans

The state requires that the SDCRAA, as the ALUC, prepare ALUCPs for each public-use and military airport in San Diego County as directed in Public Utilities Code Section 21675. An ALUCP contains policies and criteria that address compatibility between airports and future land uses that surround them by addressing noise, overflight, safety, and airspace protection concerns to minimize the public’s exposure to excessive noise and safety hazards within the airport influence area for each airport over a 20-year horizon.

Disaster Recovery and Assistance/Natural Disasters

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The Multi-Jurisdictional Hazard Mitigation Plan is a countywide plan that identifies risks and ways to minimize damage by natural and manmade 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, tsunami, dam failure, earthquakes, floods, rain-induced landslides, liquefaction, structure/wildfire fires, and manmade hazards. It also provides goals, objectives, and actions to reduce impacts from these hazards.
Organizational Operational Area Emergency Plan

The San Diego County Emergency Plan describes a comprehensive emergency management system that provides for a planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization, and describes the overall responsibilities for protecting life and property and ensuring the overall well-being of the population. The plan also identifies the sources of outside support that might be provided (through mutual aid and specific statutory authorities) by other jurisdictions, state and federal agencies, and the private sector.

The plan cites authorities and references to support the plan and has five objectives:

1. To provide a system for the effective management of emergency situations.
2. To identify lines of authority and relationships.
3. To assign tasks and responsibilities.
4. To ensure adequate maintenance of facilities, services, and resources.
5. To provide a framework for adequate resources for recovery operations.

The San Diego County Operational Area consists of the 18 cities and county government. To foster a regional approach, the cities and County joined together in 1961 to form an Operational Area and entered into a Joint Powers Authority (JPA). The JPA establishes procedures and protocols for assisting each other in the event of a disaster or major emergency that would be beyond the capability of any single jurisdiction to handle. An Operational Area is defined as a county and each of its political jurisdictions, including Special Districts. The Unified Disaster Council is the policy-making body for the Unified Organization, and the OES is staff to the Unified Organization (OES 2014).

Fire

County of San Diego Consolidated Fire Code

The purposes of prescribing regulations in the unincorporated area of San Diego County, the applicable fire code is known as the County Fire Code and includes the Consolidated Fire Code and adopts, by reference, the California Fire Code, 2013 edition (Title 24 CCR Part 9). The Consolidated Fire Code consists of local Fire Protection District ordinances that have modified the Fire Code portion of the State Building Standards Code and any County of San Diego modification to the Fire Districts’ amendments. The purpose of the Consolidated Fire Code is for the protection of the public health and safety, which includes permit and inspection requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the Consolidated Fire Code. The Consolidated Fire Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the Consolidated Fire Code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases.

Local Municipal Fire Codes

Each of the 18 cities in the San Diego region has a Fire Code included in its Municipal Code. Like the County of San Diego Consolidated Fire Code, these codes all conform to the California Fire Code and are similar in their provisions with regard to fire safety, although they may differ in their approach to vegetation management.
4.9 Hazards and Hazardous Materials

4.9.3 SIGNIFICANCE CRITERIA

Appendix G of the CEQA Guidelines ("Appendix G") 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 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 population and housing are provided in Section IX of Appendix G. For purposes of this EIR, the Appendix G questions have been combined and modified. Specifically, criterion HAZ-1 below incorporates the issues found within CEQA Appendix G Section VIII criteria (b) and (d) regarding emitting hazardous materials and location on a hazardous materials site. HAZ -2 addresses criteria (a) and (c). HAZ-3 addresses air traffic hazards consistent with Section VIII criteria (e) and (f) and Section XVI criteria (c). HAZ-4 addresses Section VIII criterion (g) and Section XVI criterion (e). HAZ-5 relates to Section VIII criterion (h). 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 during pre-construction, demolition, and/or construction activities.
HAZ-2 Create a significant hazard to the public, schools, or the environment through the routine use, handling, transport, or disposal of hazardous materials.
HAZ-3 Result in an air traffic hazard for people residing or working within an airport land use plan or within 2 miles of a public or private airport, airstrip, or helipad, or result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
HAZ-4 Impede implementation of an adopted emergency response plan or emergency evacuation plan or result in inadequate emergency access.
HAZ-5 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.9.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

HAZ-1 CREATE A SIGNIFICANT HAZARD BY GENERATING HAZARDOUS EMISSIONS OR HANDLING HAZARDOUS MATERIALS DURING PRE-CONSTRUCTION, DEMOLITION, AND/OR CONSTRUCTION ACTIVITIES.

ANALYSIS METHODOLOGY

The following analysis describes the types of hazardous materials that would be encountered, used, and handled during the pre-construction, demolition, or construction of development projects associated with forecasted regional growth and land use change and planned transportation network improvements. 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 forecasted regional growth and land use change and planned transportation network improvements to known hazardous materials sites that could be disturbed and/or encountered during these activities. This analysis also identifies standard construction practices and applicable laws and regulations for the proper storage, containment, use, and removal of hazardous materials during pre-construction, demolition, and construction.
4.9 Hazards and Hazardous Materials

IMPACT ANALYSIS

2020

Regional Growth and Land Use Change

By 2020, population within the region is forecasted to increase by 292,284 people, housing by 83,836 units, and employment by 173,211 jobs. New development caused by regional growth and land use change would include new housing units, services, commercial areas, industrial centers, schools, and civic uses in a variety of settings, including redevelopment activities on previously developed sites and new development on sites that are undeveloped or were previously used for activities such as agriculture or military uses. Hazardous materials would be handled and potentially released during the pre-construction, demolition, or construction of future development projects from activities such as truck and equipment refueling, building demolition, soil excavation and export, transportation of debris containing hazards, or use of hazardous materials would occur.

The potential for release of hazardous materials associated with the proposed Plan would primarily 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. When disturbing areas of known historical UST releases, precautions would be taken during construction to screen for potential hazardous constituents in soil and groundwater to protect workers, and any contaminated soils excavated during site improvements would be managed and disposed of in accordance with applicable state and federal laws and regulations. Compliance with these laws and regulations as described below would avoid any significant human health and the environmental impacts from USTs during pre-construction, demolition, or construction activities.

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, during construction activities, 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 and containment measures where the materials would be used and stored, 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 pre-construction, demolition, and or construction activities. Businesses that handle/generate hazardous materials within the region are monitored by USEPA; San Diego Regional Water Quality Control Board (RWQCB); the County of San Diego DEH-HMD; 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-HMD 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 pre-construction, 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

Pre-construction, demolition, and construction activities associated with transportation network improvements by 2020 would 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 removal and off-site transport of contaminated soil and/or groundwater. Demolition activities associated with transportation network improvements such as removal and replacement of decades-old bridges would involve handling and disposal of hazardous materials where such materials were used in the original construction. Additionally, construction of 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 could be released into the environment. 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 a release or incident occurred during transport.

The same protections governing pre-construction, demolition, and construction activities for development projects would apply to such activities for transportation network improvements. Existing federal, state, and local laws, regulations, and programs included in Section 4.9.2 are designed to avoid and minimize the potential for hazards to result from hazardous materials handled or emitted during construction. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would therefore ensure that any emissions or handling of hazardous materials during pre-construction, demolition, and construction of transportation network improvements would not create a significant hazard. Therefore, transportation network improvements would have a less than significant impact.
2020 Conclusion

Pre-construction, construction, and demolition activities associated with regional growth and land use change and transportation network improvements would encounter, use and handle hazardous materials. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that these activities do not create a significant hazard to people or the environment. Therefore, this impact (HAZ-1) in the year 2020 is less than significant.

2035

Regional Growth and Land Use Change

As described in the 2020 analysis, developments projects resulting from regional growth and land use change by 2035 would also increase construction activities that involve a variety of new land uses in a variety of settings, including redevelopment activities on previously developed sites and new development on sites that are undeveloped or were previously used for activities such as agriculture or military uses. Hazardous materials would be handled and potentially released during the pre-construction, demolition, or construction of future development projects from activities such as truck and equipment refueling, building demolition, soil excavation and export, transportation of debris containing hazards, or use of hazardous materials would occur.

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, 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.

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. When disturbing areas of known historical UST releases, precautions would be taken during construction to screen for potential hazardous constituents in soil and groundwater to protect workers, and any contaminated soils excavated during site improvements would be managed and disposed of in accordance with applicable state and federal laws and regulations. Compliance with these laws and regulations as described below would avoid any significant human health and the environmental impacts from USTs during pre-construction, demolition, or construction activities.

The same protections governing pre-construction, demolition, and construction activities for development projects would apply to such activities for transportation network improvements. Existing federal, state, and local laws, regulations, and programs included in Section 4.9.2 are designed to avoid and minimize the potential for hazards to result from hazardous materials handled or emitted during construction. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would therefore ensure that any emissions or handling of hazardous materials during pre-construction, demolition, and construction of transportation network improvements would not create a significant hazard. Therefore, transportation network improvements would have a less than significant impact.
4.9 Hazards and Hazardous Materials

**Transportation Network Improvements and Programs**

Pre-construction, demolition, and construction activities associated with transportation network improvements by 2035 would 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 removal and off-site transport of contaminated soil and/or groundwater. Demolition activities associated with transportation network improvements such as removal and replacement of decades-old bridges would involve handling and disposal of hazardous materials where such materials were used in the original construction. Additionally, construction of 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 could be released into the environment. 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 a release or incident occurred during transport.

The same protections governing pre-construction, demolition, and construction activities for 2020 development projects would apply to such activities for 2035 transportation network improvements. Existing federal, state, and local laws, regulations, and programs included in Section 4.9.2 are designed to avoid and minimize the potential for hazards to result from hazardous materials handled or emitted during construction. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would therefore ensure that any emissions or handling of hazardous materials during pre-construction, demolition, and construction of transportation network improvements would not create a significant hazard. Therefore, transportation network improvements would have a less than significant impact.

**2035 Conclusion**

Pre-construction, construction, and demolition activities associated with regional growth and land use change and transportation network improvements would encounter, use and handle hazardous materials. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that these activities do not create a significant hazard to people or the environment. Therefore, this impact (HAZ-1) in the year 2035 is less than significant.

**2050**

**Regional Growth and Land Use Change**

Regional growth and land use change by 2050 would include conversion of undeveloped lands, along with a focus on infill development within the existing communities. As described in the 2020 and 2035 analyses, this growth would increase construction activities that involve 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 a residue of hazardous substances contained in the soil, which could pose a significant risk to humans or the environment.
The same protections governing pre-construction, demolition, and construction activities for development projects would apply to such activities for transportation network improvements. Existing federal, state, and local laws, regulations, and programs included in Section 4.9.2 are designed to avoid and minimize the potential for hazards to result from hazardous materials handled or emitted during construction. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would therefore ensure that any emissions or handling of hazardous materials during pre-construction, demolition, and construction of transportation network improvements would not create a significant hazard. Therefore, transportation network improvements would have a less than significant impact.

**Transportation Network Improvements and Programs**

Transportation network improvements and programs planned for 2050 are located throughout the western half of the San Diego region, but unlike the improvements planned by 2020 and 2035, several of these planned improvements extend into the less populated areas at the edge of the highly urbanized areas. Implementation of the proposed Plan in 2050 would 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 transport of excavated soil and/or groundwater containing contaminants from areas identified as being contaminated. Additionally, construction of 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 could be released into the environment.

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 an accidental release of hazardous materials. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. 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 that impacts related to the accidental release of hazardous materials into the environment related to pre-construction, demolition, and/or construction activities would be less than significant by minimizing the potential risk to human health and the environment.

**2050 Conclusion**

Pre-construction, construction, and demolition activities associated with regional growth and land use change and transportation network improvements would encounter, use and handle hazardous materials. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that these activities do not create a significant hazard to people or the environment. Therefore, this impact (HAZ-1) in the year 2050 is less than significant.
HAZ-2 CREATE A SIGNIFICANT HAZARD TO THE PUBLIC, SCHOOLS, 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 the regional growth and land use change, and transportation network improvements.

The handling 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 proposed development and redevelopment of areas within the region. In addition, construction activities associated with the building of land use 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 the effectiveness of existing regulations in minimizing impacts associated with the routine use, handling, transport, and disposal of hazardous materials.

IMPACT ANALYSIS

2020

Regional Growth and Land Use Change

By 2020, regional growth and development would increase throughout the San Diego region. New development would be in the form of new housing units, services, commercial areas, industrial centers, schools, and civic uses. Most land uses are likely to involve activities in which 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. Some solvents, cleaning materials, horticultural chemicals, and other products in common use would be classified as hazardous substances. New commercial and industrial development would also result in increased use, storage, and/or disposal of hazardous materials during routine operations. Of particular concern are facilities with USTs or other methods of storage that could accidentally leak into the soil, water, or air. Specific examples of such facilities include gas stations, automotive repair shops, and dry cleaners.

Almost all land use designations allow activities that have the potential to involve the handling, use, and/or disposal 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 the public. Given the regional extent of the proposed Plan and the large number of existing schools located throughout the San Diego region (approximately 1,040 public and private), it is likely that additional development and redevelopment forecasted by 2020 would occur within one-quarter mile of an existing school. Approximately three quarters of total population and housing unit growth would be within the City of San Diego, County of San Diego, and Chula Vista. Depending on the actual number and location of housing units constructed, new schools would likely require new or expanded facilities to maintain current levels of service as population increases.
Given that the higher increase in population is occurring in the more urban areas of the region, it is likely that new or proposed schools would be sited near locations where hazardous materials, substances, and/or waste may be handled or emitted. With the forecasted increase in population and development by 2020, 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.

As described in Section 4.9.2, federal and state regulations exist that reduce hazardous emissions and hazardous materials handling within one-quarter mile of an existing or proposed school. These include, but are not limited to, CHHSLs, which evaluate sites with potential human health concerns, and the CEC, which requires the preparation of environmental assessments prior to school siting. Any development or redevelopment that would use hazardous materials on-site would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous materials or waste releases and protect the public health. OSHA and local regulatory agencies (e.g., SDAPCD, fire departments) mandate the use of controls to limit exposure to workers and the public from chemicals of potential concern through the use of various controls (e.g., the use of warning signs and containment areas, implementation of work plans and health and safety plans, reduction of dust emissions through the use of wet methods, use of personal protective equipment by workers).

USDOT requires that safety measures be used during the transportation of hazardous materials and wastes (e.g., packaging, labeling, use of secondary containment, recordkeeping), and these procedures are monitored through the use of hazardous waste manifests. To operate in California, all hazardous waste transporters must be registered with DTSC. Unless specifically exempted, hazardous waste transporters must comply with the California Highway Patrol Regulations, the California State Fire Marshal Regulations, and the United States Department of Transportation Regulations.

Individual jurisdictions will continue to enforce disclosure laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport, and to notify the appropriate city, county, state, and federal agencies in the event of a violation. Adherence to the regulations would ensure that impacts associated with routine use, handling, transport, or disposal of hazardous materials would be less than significant.

Additionally, 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 proximity of schools. 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 impacts associated with routine use, handling, transport, or disposal of hazardous materials, including impacts on schools, would be less than significant for regional growth and land use change.
**Transportation Network Improvements and Programs**

Implementation of the transportation network improvements forecasted as part of the proposed Plan by 2020 would continue to involve the routine use, handling, transport, or disposal of hazardous materials. New general purpose lanes, new managed lanes, and improvements to regional arterials would increase capacity for goods movement by truck, which would result in transport of hazardous materials (e.g., fuel trucks) and equipment that contains or uses routine hazardous materials (e.g., diesel-fueled equipment). Hazardous materials are also transported via rail by freight operators. Double-tracking of the LOSSAN rail corridor by 2020 would increase the capacity of goods movement, including hazardous materials, to be carried by freight rail.

Construction activities associated with transportation network improvements and programs by 2020 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 geographic information system (GIS) database for schools located within the San Diego region, proposed transportation network improvements by 2020 were overlain on the region to identify where impacts to existing schools may occur if hazardous materials were accidentally released into the environment. The results of this analysis indicate that approximately 37 existing schools are located within one-quarter mile of planned arterial improvements, 19 schools within one-quarter mile of planned bikeway improvements, 11 school within one-quarter mile of planned general purpose lane or managed lane improvements, and 12 schools within one-quarter mile of planned rail improvements by 2020. These schools may be impacted if hazardous materials carried on these roadways or rail lines were 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 a release or incident occurred during transport.

As discussed above, existing federal, state, and local laws, regulations, and programs included 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 routine transport, use, and disposal of hazardous materials do not create a significant hazard to the public or the environment. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would ensure that impacts associated with routine use, handling, transport, or disposal of hazardous materials would be less than significant for transportation network improvements.

**2020 Conclusion**

Regional growth and land use change as well as transportation network improvements by 2020 would routinely use, handle, transport, or dispose hazardous materials. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that implementation of the proposed Plan would not result in a significant hazard to the public, schools, or the environment. Therefore, this impact (HAZ-2) in the year 2020 is less than significant.
Regional Growth and Land Use Change

Approximately 77 percent of the forecasted regional population increase by 2035 is in the City of San Diego (48 percent), County of San Diego (17 percent), and City of Chula Vista (11 percent). Similarly, these three jurisdictions will accommodate approximately 80 percent of new housing units and 68 percent of new jobs, by 2035. As described in the 2020 analysis, increased residential and mixed-use development would increase the use, handling, transport, storage, and disposal of household hazardous materials. New commercial and industrial development would also result in increased use, handling, transport, storage, and/or disposal of hazardous materials during routine operations. Hazardous materials would be used, handled, or stored, and hazardous waste would be generated from these land uses. This could also result in siting sensitive land uses, including schools, near facilities that use hazardous materials. Therefore, the potential exists for human exposure, and, under certain conditions, potential releases of hazardous materials into the environment or within one-quarter mile of schools or other sensitive receptors.

As described in Section 4.9.2, the current regulatory environment provides a high level of protection from the hazardous materials manufactured within, transported to, and disposed of within the San Diego region. Federal and state regulations exist that reduce hazardous emissions and hazardous materials handling within one-quarter mile of an existing or proposed school. These include, but are not limited to, CHHSLs, which evaluate sites with potential human health concerns, and the CEC, which requires the preparation of environmental assessments prior to school siting. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would ensure that impacts associated with routine use, handling, transport, or disposal of hazardous materials, 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 for regional growth and land use change.

Transportation Network Improvements and Programs

By 2035, new managed lanes or general purpose lanes would continue in 2035 along of portions I-5, SR 15, I-15, SR 78, I-805, SR 52, and SR 67. A few arterial projects would be completed in 2035, including new road extensions in the community of Ramona, roadway widening along Genesee Avenue to Nobel Drive, and a new interchange at SR 78 in San Marcos.

As described in the 2020 analysis above, the types of activities that would involve the routine use, handling, transport, or disposal of hazardous materials by truck and by rail would continue to occur through 2035 as additional transportation network improvements and programs are implemented.

Construction activities associated with transportation network improvements and programs by 2035 may result in hazardous emissions or the handling of hazardous or acutely hazardous materials, or the transport of excavated soil and/or groundwater containing contaminants near schools. Using SANDAG’s geographic information system (GIS) database for schools located within the San Diego region, proposed transportation network improvements by 2035 were overlain on the region to identify where impacts to existing schools may occur if hazardous materials were accidentally released into the environment.
The results of this analysis indicate that approximately 4 existing schools are located within one-quarter mile of planned arterial improvements, 23 schools within one-quarter mile of planned bikeway improvements, 107 school within one-quarter mile of planned managed lane or general purpose lane improvements, and 58 schools within one-quarter mile of planned rail improvements by 2035. These schools may be impacted if hazardous materials carried on these roadways or rail lines were 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 a release or incident occurred during transport.

As discussed above, existing federal, state, and local laws, regulations, and programs included 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 routine use, handling, transport, and disposal of hazardous materials do not create a significant hazard to the public or the environment. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to such regulations would ensure that impacts associated with routine use, handling, transport, or disposal of hazardous materials would be less than significant for planned transportation network improvements.

2035 Conclusion

By 2035, implementation of the proposed Plan would result in regional growth and land use change as well as transportation network improvements that would involve the routine use, handling, transport, or disposal of hazardous materials. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that such use, handling, transport, and disposal does not create a significant hazard to the public, schools, or the environment. Therefore, this impact (HAZ-2) in the year 2035 is less than significant.

2050

Regional Growth and Land Use Change

Regional growth and land use change by 2050 would include conversion of undeveloped lands, as well as infill development within the existing communities. Approximately 75 percent of the forecasted regional population increase by 2050 is in the City of San Diego (49 percent), County of San Diego (16 percent), and City of Chula Vista (10 percent). Similarly, these three jurisdictions accommodate approximately 79 percent of new housing units and 71 percent of new jobs, respectively, by 2050.

As described in the 2020 and 2035 analyses, increases in development and redevelopment would occur, as would the routine use, handling, transport, or disposal of hazardous materials. Additionally, the proposed Plan could also 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. Therefore, an increased potential for human exposure exists, and, under certain conditions, potential releases of hazardous materials into the environment.

As discussed above, existing federal, state, and local laws, regulations, and programs included 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 routine use, handling, transport, and disposal of hazardous materials do not create a significant hazard to the public or the environment.
Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would ensure that impacts associated with routine use, handling, transport, or disposal of hazardous materials would be less than significant for regional growth and land use change.

**Transportation Network Improvements and Programs**

As true with the 2020 and 2035 analyses, the types of activities that would involve the routine use, handling, transport, or disposal of hazardous materials would continue to occur through 2050 as additional transportation network improvements are implemented. The managed lane, general purpose lane, and rail improvements to be implemented by 2050 involve the increase in the capacity of existing roadways and rail lines, indirectly increasing the capacity of routes used to transport goods, including hazardous materials.

Construction activities associated with the proposed transportation network improvements and programs by 2050 may result in hazardous emissions or the handling of hazardous or acutely hazardous materials, or the transport of excavated soil and/or groundwater containing contaminants near schools. Using SANDAG’s GIS database for schools located within the San Diego region, the proposed Plan transportation network improvements planned by 2050 were overlain on the region to identify where impacts to existing schools may occur if hazardous materials were accidentally released into the environment. The results of this analysis indicate that approximately no schools are located within one-quarter mile of planned arterial improvements, seven schools within one-quarter mile of planned bikeway improvements, 69 school within one-quarter mile of planned managed lane or general purpose lane improvements, and 65 schools within one-quarter mile of planned rail improvements by 2050. These schools may be impacted if hazardous materials carried on these roadways a release or incident occurred during transport. In addition, hazardous materials carried on the existing highways and arterials could affect these schools via exposure of sensitive receptors to health hazards if a release or incident occurred during transport.

As discussed above, existing federal, state, and local laws, regulations, and programs included 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 routine use, handling, transport, and disposal of hazardous materials do not create a significant hazard to the public or the environment. Specifically, adherence to the USDOT regulations for safe hauling procedures, compliance with the Chemical Accident Prevention Provisions (40 CFR Part 68), and contacting Cal EMA in the event of a hazardous materials incident. Adherence to the regulations above would ensure that implementation of planned transportation network improvements would result in a less than significant impact related to a hazard to the public or the environment, or within one-quarter mile of an existing or proposed school through the routine use, handling, transport, or disposal of hazardous materials.

**2050 Conclusion**

The increase in regional growth and land use change as well as transportation network improvements and improvements by 2050 would increase the routine use, handling, transport, or disposal of hazardous materials. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that such routine use, handling, transport, and disposal does not create a significant hazard to people, schools, or the environment. Therefore, this impact (HAZ-3) in the year 2050 is less than significant.
HAZ-3 RESULT IN AN AIR TRAFFIC HAZARD FOR PEOPLE RESIDING OR WORKING WITHIN AN AIRPORT LAND USE PLAN OR WITHIN 2 MILES OF A PUBLIC OR PRIVATE AIRPORT, AIRSTRIP, OR HELIPAD, OR RESULT IN A CHANGE IN AIR TRAFFIC PATTERNS, INCLUDING EITHER AN INCREASE IN TRAFFIC LEVELS OR A CHANGE IN LOCATION WHICH RESULTS IN SUBSTANTIAL SAFETY RISKS.

ANALYSIS METHODOLOGY

This section identifies whether implementation of the proposed Plan would potentially increase aircraft activity in the region and whether the proposed Plan would result in any operational changes (e.g., changes in flight patterns) to San Diego region Airports or place any new land uses that would affect airport operations in the vicinity of any airports.

The proposed Plan is analyzed for compatibility with the ALUCPs and each of the other relevant documents addressing airports in the region. Regional growth in proximity to airports is described in relation to the ALUCPs. This section also describes airport compatible land uses as well as other issues and recommendations related to air navigation safety. Additionally, military airports and private airstrips exist within the region, mostly in rural or agricultural areas both are not subject to an ALUCP.

The height and location of structures associated with transportation network improvements 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; therefore, they will not be addressed further in this analysis.

IMPACT ANALYSIS

2020

Regional Growth and Land Use Change

By 2020, regional growth and development would increase throughout the San Diego region. New development caused by regional growth and land use change would be in the form of new housing units, services, commercial areas, industrial centers, schools, and civic uses. As indicated in Section 4.9.1, 16 public-use and military airports (Figure 4.9-1) are located within the San Diego region. Airport hazards involve uncertain events that may occur with occasional aircraft operations. Essentially, there are two types of aviation-related safety concerns that affect land use near airports. The first is minimizing the severity of an aircraft accident by limiting the number of people and amount of property within airport hazard zones. The second is minimizing air hazards through restrictions on building heights and on uses that produce electronic or visual impairments to navigation or attract large numbers of birds.

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. The policies identify what types of land uses are allowed around airports and are intended to protect the safety of people, property, and aircraft on the ground and in the air in the vicinity of the airport. The policies also protect airports from encroachment by new incompatible land uses that could restrict their operations. Structure replacement and infill development are generally permitted under ALUCPs, in accordance with policies established by the SDCRAA.
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 Section 4.9.2, the SD CRAA, 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 PUC 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. As a result of the distinct levels of risk in each safety compatibility zone, ALUCPs and CLUPs differentiate allowed and prohibited land uses according to safety compatibility zones. 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 and CLUPs typically restrict land uses to a greater degree at each end of a runway.

The DOD 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.

Development projects associated with the proposed Plan would be subject to FAA evaluation and the FAA would be notified of proposed development pursuant to Section 77.11 of Federal Aviation Regulations. The notification provides the basis for the FAA to evaluate the 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. Therefore, adherence to the regulations above would ensure that safety hazards associated with airports or air traffic would be less than significant.

Regional growth and land use change is forecasted to occur near other private or special-use airstrips or helipads, such as hospitals and police stations. Appropriate separation between private airports and land use development is identified in accordance with the Airport Safety Compatibility Zones of the California Airport Land Use Planning Handbook or FAA standards. Appropriate separation between project development and the airstrip or helipad would be identified in accordance with existing FAA regulations. If it determines it necessary, the FAA may condition certain requirements for project sites, including enhanced-visibility paint schemes or special lighting. Sites are also required to comply with applicable airport land use plans, which govern the heights of structures within defined areas around airports. The purpose of this review is to ensure that the construction of new facilities will not create hazards to aviation. All towers that meet the criteria will be required to undergo this process prior to construction as part of standard regulatory compliance. These existing regulations and FAA procedures would ensure compatibility between land uses and airports and reduce the potential for aircraft accidents.
By 2020, additional regional growth and land use change is forecasted to occur near private or special-use airstrips or helipads, particularly in the urbanized areas of the region. As described above, appropriate separation between project development and the airstrip or helipad would be identified in accordance with existing regulatory mechanisms. The FAA may condition certain requirements for project sites to avoid or reduce hazards associated with air safety. Existing regulations and FAA procedures would ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to the regulations described above would ensure safety hazards associated with private airstrips or helipads would be less than significant.

2020 Conclusion

By 2020, increased development would occur near public or military airports, private airstrips or helipads. Adherence to the regulations described above and in Section 4.9.2 would minimize safety hazards related to airports and air traffic associated with implementation of the proposed Plan. Therefore, this impact (HAZ-3) in the year 2020 is less than significant.

2035

Regional Growth and Land Use Change

As described in the 2020 analysis, the proposed Plan does not propose any incompatible land uses within the vicinity of public airports. A portion of regional growth and land use change 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 (Section 77.11 of Federal Aviation Regulations), ALUCPs, and AICUZ studies ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to the regulations above would ensure that safety hazards associated with airports or air traffic would be less than significant.

By 2035, additional regional growth and land use change is forecasted to occur near private or special-use airstrips or helipads, particularly in the urbanized areas of the region. As described above, appropriate separation between project development and the airstrip or helipad would be identified in accordance with existing regulatory mechanisms. The FAA may condition certain requirements for project sites to avoid or reduce hazards associated with air safety. Existing regulations and FAA procedures would ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to the regulations described above would ensure safety hazards associated with private airstrips or helipads would be less than significant.

2035 Conclusion

By 2035, increased development would occur near public or military airports, private airstrips, or helipads. Adherence to the regulations described above and in Section 4.9.2 would minimize safety hazards related to airports and air traffic associated with implementation of the proposed Plan. Therefore, this impact (HAZ-3) in the year 2035 is less than significant.
Regional growth and land use change by 2050 would include conversion of undeveloped lands, as well as infill development within the existing communities. As described in the 2020 and 2035 analyses, the proposed Plan does not propose any incompatible land uses within the vicinity of public airports. 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 (Section 77.11 of Federal Aviation Regulations), ALUCPs, and AICUZ studies ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to the regulations above would ensure safety hazards associated with airports or air traffic would be less than significant.

By 2050, additional regional growth and land use change is forecasted to occur near private or special-use airstrips or helipads, particularly in the urbanized areas of the region. As described above, appropriate separation between project development and the airstrip or helipad would be identified in accordance with existing regulatory mechanisms. The FAA may condition certain requirements for project sites to avoid or reduce hazards associated with air safety. Existing regulations and FAA procedures would ensure compatibility between land uses and airports and reduce the potential for aircraft accidents. Therefore, adherence to the regulations described above would ensure that safety hazards associated with private airstrips or helipads would be less than significant.

2050 Conclusion

By 2050, increased development would occur near public or military airports, private airstrips, or helipads. Adherence to the regulations described above and in Section 4.9.2 would minimize safety hazards related to airports and air traffic associated with implementation of the proposed Plan. Therefore, this impact (HAZ-3) in the year 2050 is less than significant.

HAZ-4 IMPEDE IMPLEMENTATION OF 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 local jurisdictions’ general plans as well as Caltrans maps of State routes, are reviewed to determine whether emergency evacuation route designations exist in any of the proposed regional growth and transportation project areas. These routes are evaluated to determine if their effectiveness for emergency evacuation would be impacted 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.

During the timeframe of the proposed Plan, climate change effects that are likely to exacerbate the proposed emergency response impacts include, but are not limited to, more days of extreme high temperatures, longer and more humid heat waves, less frequent and more intense rainstorms, more frequent flood events, sea level rise and more frequent and severe coastal flooding, and more frequent and severe wildfires. In general, climate change effects would increase between 2020 and 2050. Please see Appendix F for additional climate change information.

**IMPACT ANALYSIS**

**2020**

*Regional Growth and Land Use Change*

By 2020, regional growth and land use change would increase throughout the San Diego region. New development associated with regional growth and land use change would be in the form of new housing units, services, commercial areas, industrial centers, schools, and civic uses.

While forecasted regional growth and land use change would not change any of the policies or requirements within any of the established emergency plans, development by 2020 would interfere with emergency plans and procedures if authorities are not properly notified, or multiple projects are constructed during the same time and multiple roadways used for emergency routes are concurrently blocked or impeded. In addition, new development or increased density of intensity of development may occur in areas that may not have accounted for this growth in existing emergency response and evacuation plans.

However, emergency plans and 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 (refer to Section 4.9.2). As required by the individual jurisdiction implementing the emergency plans and programs, 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 forecasted regional growth. This would include the evaluation of established evacuation routes (Figure 4.9-4), as described in the OES Emergency Plan. In addition, project-level CEQA reviews routinely assure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures would be in place to ensure that development projects would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or result in inadequate emergency access. Therefore, this impact is less than significant.
Figure 4.9-4
Emergency Evacuation Routes in the San Diego Region
April 2015

Source: San Diego County OES 2014
**Transportation Network Improvements and Programs**

In general, implementation of the transportation network improvements and programs in and of themselves would not impair or physically interfere with the implementation of any adopted emergency response plan or emergency evacuation plan or result in inadequate emergency access. However, by 2020, improvements are planned for highways identified as evacuation routes in the Emergency Plan discussed above, and there is potential for traffic delays and roadway blockages during construction of individual improvements. In addition, expansion of light rail lines and other transit routes may also cause traffic congestion during construction activities, which would temporarily hinder emergency vehicle response or evacuation in the event of an emergency.

However, as described above and in Section 4.9.2, emergency plans and programs contain measures to reduce impacts associated with conflicts with emergency response and evacuation plans. Therefore, measures are in place to ensure that transportation network improvements and programs would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or result in inadequate emergency access. Therefore, this impact is less than significant.

**2020 Conclusion**

By 2020, increased regional growth and land use change as well as transportation network improvements and programs have the potential to 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 or result in inadequate emergency access. However, adherence to existing regulations discussed above and in Section 4.9.2 would ensure that implementation of the proposed Plan would result in a less than significant impact related to emergency response or evacuation plans and emergency access. Therefore, this impact (HAZ-4) in the year 2020 is less than significant.

**2035**

**Regional Growth and Land Use Change**

As described in the 2020 analysis, land uses and development activities implemented by 2035 would have the potential to interfere with emergency plans and procedures. Approximately 77 percent of the forecasted regional population increase by 2035 is in the City of San Diego (48 percent), County of San Diego (17 percent), and City of Chula Vista (11 percent). Similarly, these three jurisdictions accommodate approximately 80 percent of new housing units and 68 percent of new jobs, respectively, by 2035. However, 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, if a project identified in the proposed Plan is submitted for discretionary review, that project 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 or result in inadequate emergency access. Therefore, this impact is less than significant.
**Transportation Network Improvements and Programs**

By 2035, additional transportation network improvements and programs would occur in the San Diego region as part of the proposed Plan. As discussed in the 2020 analysis, implementation of the transportation network improvements and programs in and of themselves would not impair or physically interfere with the implementation of any adopted emergency response plan or emergency evacuation plan, or result in inadequate emergency access. 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 and emergency access. These plans are periodically evaluated by the implementing agencies in coordination with the OES. In addition, project-level CEQA reviews routinely assure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure transportation network improvement projects and programs would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or emergency access. Therefore, this impact is less than significant.

**2035 Conclusion**

By 2035, increased regional growth and land use change as well as transportation network improvements and programs have the potential to 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, or result in inadequate emergency access. However, adherence to the regulations described above and in Section 4.9.2 would ensure that regional growth and land use change as well as transportation network improvements and programs would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or emergency access. Therefore, this impact (HAZ-4) in the year 2035 is less than significant.

**2050**

**Regional Growth and Land Use Change**

Regional growth and land use change by 2050 would include some conversion of undeveloped lands, as well as infill development within the existing communities. Approximately 75 percent of the forecasted regional population increase by 2050 is in the City of San Diego (49 percent), County of San Diego (16 percent), and City of Chula Vista (10 percent). Similarly, these three jurisdictions accommodate approximately 79 percent of new housing units and 71 percent of new jobs, respectively, by 2050.

As described in the 2020 and 2035 analyses, land uses and development activities implemented by 2050 would have the potential to interfere with emergency plans and procedures. However, 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 and the need for emergency access. In addition, project-level CEQA reviews routinely assure that individual projects do not adversely impact emergency response or evacuation plans. Therefore, measures are in place to ensure regional growth and land use change would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or the need for emergency access. Therefore, this impact is less than significant.
**Transportation Network Improvements and Programs**

As discussed in the 2020 and 2035 analyses, implementation of the transportation network improvements and programs in and of themselves would not impair or physically interfere with the implementation of any adopted emergency response plan or emergency evacuation plan, or result in inadequate emergency access. 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 and the need for emergency access. These plans are periodically evaluated by the implementing agencies in coordination with the OES. In addition, discretionary development projects would require project-level review pursuant to CEQA to ensure that individual projects do not adversely impact emergency response or evacuation plans or the need for emergency access. Therefore, measures are in place to ensure that transportation network improvement projects and programs would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or emergency access. Therefore, this impact is less than significant.

**2050 Conclusion**

By 2050, increased development and transportation network improvements have the potential to 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, or result in inadequate emergency access. However, adherence to the regulations described above and in Section 4.9.2 would ensure that regional growth and land use as well as transportation network improvements and programs associated with the proposed Plan would not impair implementation of, or physically interfere with, an emergency response or evacuation plan or emergency access. Therefore, this impact (HAZ-4) in the year 2050 is less than significant.

**HAZ-5 EXPOSE PEOPLE OR STRUCTURES TO A SIGNIFICANT RISK OF LOSS, INJURY, OR DEATH INVOLVING WILDLAND FIRES, INCLUDING WHERE WILDLANDS ARE ADJACENT TO URBANIZED AREAS OR WHERE RESIDENCES ARE INTERMIXED WITH WILDLANDS.**

**ANALYSIS METHODOLOGY**

The analysis discusses impacts associated with proposed changes in land use patterns that would place development in proximity to wildfire areas. Locations of regional growth and land use change are compared to locations of wildfire hazard areas. Fire resistant measures that will be applied to future projects to reduce risks and property damage are also described.

The transportation network improvements and programs located within fire hazard areas to expose people to risks (e.g., access to wildfire areas) are also evaluated. Risk of road closures and possible structural damage due to wildland fire damage is addressed. Additionally, the section examines the potential for added risk of wildland fire because of transportation network improvements being extended into WUI areas.
During the timeframe of the proposed Plan, climate change effects that are likely to exacerbate the proposed Plan’s wildland fire impacts include, but are not limited to, more days of extreme high temperatures, longer and more humid heat waves, less frequent and more intense rainstorms, and more frequent and severe wildland fires.

Wildland fire risk in California would increase due to earlier snowmelt, higher temperatures, and longer dry periods (CEC 2012; CNRA 2014). The number of large fires statewide is estimated to increase 58–128 percent above historical levels by 2085. Burned areas would also increase 57–169 percent, depending on location (CEC 2012). Wildland fire risk would also be indirectly influenced by potential climate-related changes in vegetation and ignition potential from lightning. Nevertheless, human activities will continue to be the biggest factor in ignition risk (CEC 2012). Studies also demonstrate that the distribution and degree of increased wildland fire risk in California will also be driven to a large extent by changes in land use and development, including rates of residential and infrastructure expansion into fire prone areas.

The San Diego region already experiences wildland fire, and specific increases in the frequency and severity will depend on factors including shifts in vegetation, Santa Ana wind behavior, temperature increases, and decreased soil moisture due to longer periods of drought (CAL EMA 2014; CNRA 2012; SANDAG 2011). Climate change models yield a somewhat different prediction about the frequency, timing, and severity of future Santa Ana wind conditions.

The wildfires of 2003 and 2007 in San Diego County resulted in more than $4.5 billion in damages, not accounting for indirect costs like interrupted economic activity (CEPA 2004 and SDF 2014). Hotter and drier climate would alter fuel conditions in ways that promote larger, more catastrophic fires like the ones seen in 2003 and 2007 (CEPA and SDF 2014). The fire season is likely to become longer and less predictable (CEPA and SDF 2014). In general, climate change effects would increase between 2020 and 2050. Climate change impacts are described in Appendix F.

**IMPACT ANALYSIS**

**2020**

*Regional Growth and Land Use Change*

By 2020, regional growth and land use change is forecasted throughout the San Diego region. New development associated with regional growth and land use change would be in the form of new housing units, services, commercial areas, industrial centers, schools, and civic uses.

As shown in Figures 4.9-2 and 4.9-3, much of San Diego region is subject to wildland fire hazards. Regional growth and land use change forecasted to occur has the potential to increase the threat of wildland fires on human populations and property, as development may be located closer to the WUI and Fire Hazard Severity zones. The expansion of the WUI by new development would occur throughout the region, but increases in development are forecasted in Vista, Escondido, Poway, Santee, Ramona, El Cajon, La Mesa, and Lemon Grove. These portions of the region have greater fire danger due to expansive areas of vegetation that would fuel a fire. Aside from the less developed areas in the eastern portion of the region, the western portion of the region is also at high risk for fire hazards as it contains hundreds of miles of WUI due to the multitude of canyons throughout the area and development along the canyon ridgelines where structures are in proximity to natural vegetation.
4.9 Hazards and Hazardous Materials

Because of these existing land characteristics, around which many communities are formed, new growth and development in the interface areas may expose additional people and structures to a significant risk of loss, injury, or death involving wildland fires. In addition, growth experienced by 2020 may result in an increased demand for fire protection services and increased demand on the existing water supply. In the event of a major wildland fire, the lack of available fire response staff or adequate response times, or infrastructure constraints such as insufficient water supply, may also contribute to an increased risk of wildland fire hazard.

In addition, wild land fires may result in immediate damage of infrastructure such as buildings and facilities, and long-term damage as a result of loss of forest or vegetation structure that may lead to erosion and unstable surfaces. The provision of defendable space would create a separation zone between wildlands and structures. Any development or redevelopment constructed adjacent to wildlands in the WUI zone would be obligated to conform to the statutory and regulatory requirements discussed in Section 4.9.2. These include specific fire code requirements, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system. Other fire-resistant measures would be applied to eaves, vents, windows, and doors to avoid any gaps that would allow intrusion by flame or embers.

In addition to fire code regulations, the Multi-Jurisdictional Hazards Mitigation Plan, as well as local general plans, contains policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, and public outreach. To effectively mitigate wildland fire hazards in the San Diego region, a multilateral approach that involves federal, state, and local governments and fire agencies is necessary. Collectively, the local jurisdictions and fire agencies work together to prevent the loss of life in wildland fires; prevent the ignition of structures by wildland fires; prevent the encroachment of wildland fire upon communities; prevent a wildfire-caused structural conflagration; and limit the size of wildland fires. Also, at the jurisdictional level, the continued monitoring and updating of existing development regulations and plans reinforce the value of defensible space to further reduce the impact of wildfire threat to people and structures. In addition, public education and firefighter training, support, and emergency operations efforts would reduce the risks of impacts involving wildfires.

The existing policies and regulations included in Section 4.9.2 as they relate to fire code regulations, the Multi-Jurisdictional Hazards Mitigation Plan, as well as local general plans, policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, and public outreach, coupled with the strategies above would help reduce the risks to people and structures associated with wildland fires. However due to the relatively large amount of area within the San Diego region considered at high risk for wildland fires the risk regional growth and land use change associated with the proposed Plan would to expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland. Impacts would be significant. Therefore, impacts related to the exposure of additional people and structures to risk of loss, injury, or death involving wildland fires would be significant.

**Transportation Network Improvements and Programs**

The transportation network improvements and programs that would be implemented between 2012 and 2020 generally would be focused in the highly urbanized western portion of the region, although portions of this area remain susceptible to wildland fires due to climate, topography, and native vegetation as previously discussed.
In general, transportation projects and facilities are not typically susceptible to substantial damage from wildfires and would not contribute added fuel to wildfires. Generally, the most noticeable effect of wildland fires on the transportation systems proposed would be temporary interruption of service with little expectation of damage to property or injury to people. In addition, improving the capacity of the existing transportation network would result in increased use of the existing corridors beyond the terminus of current conditions; indirectly enhancing potential evacuation routes and/or providing additional firebreaks.

Any transportation network improvements constructed in fire hazard severity zones or the WUI would be obligated to conform to the statutory and regulatory requirements of federal, state, and local regulations as discussed in Section 4.9.2 and under Regional Growth and Land use Change. Implementation of the transportation network improvements and programs would increase the exposure of additional people and structures to wildfires but not at a level greater than the existing 2012 risk.

Therefore, the transportation network improvements and programs associated with the proposed Plan would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland. Impacts would be less than significant.

2020 Conclusion

Given the relatively large amount of area within the San Diego region considered at high risk for wildland fires, additional regional growth and land use change forecasted by 2020, but not transportation network improvements and programs, would expose additional people and structures to a significant risk of loss, injury, or death involving wildland fires; development would occur in closer proximity to WUI and Fire Hazard Severity zones. Therefore, this impact (HAZ-5) in the year 2020 is significant.

2035

Regional Growth and Land Use Change

Approximately 77 percent of the forecasted regional population increase by 2035 is in the City of San Diego (48 percent), County of San Diego (17 percent), and City of Chula Vista (11 percent). Similarly, these three jurisdictions accommodate approximately 80 percent of new housing units and 68 percent of new jobs, respectively, by 2035.

As discussed in the 2020 analysis, increased regional growth and land use change would be located in WUI and Fire Hazard Severity zones as shown in Figure 4.9-2. In addition, growth experienced by 2035 may result in an increased demand for fire protection services and increased demand on the existing water supply. In the event of a major wildland fire, the lack of available fire response staff or adequate response times, or infrastructure constraints such as insufficient water supply, may also contribute to an increased risk of wildland fire hazard. The existing policies and regulations included in Section 4.9.2 as they relate to fire code regulations, the Multi-Jurisdictional Hazards Mitigation Plan, as well as local general plans, policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, and public outreach, coupled with the strategies above would help reduce the risks to people and structures associated with wildland fires.
However, due to the relatively large amount of area within the San Diego region considered at high risk for wildland fires, the risk of regional growth and land use change associated with the proposed Plan would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland. Impacts would be significant. Therefore, impacts related to the exposure of additional people and structures to risk of loss, injury, or death involving wildland fires would be significant. Therefore, this impact (HAZ-1) in the year 2035 would be significant.

**Transportation Network Improvements and Programs**

By 2035, additional transportation network improvements and programs would occur in the San Diego region as part of the proposed Plan. As discussed in the 2020 analysis, the majority of the transportation network improvements included in the proposed Plan are focused in the highly urbanized western portion of the region. However, portions of this area remain susceptible to wildland fires. Any transportation network improvements constructed in fire hazard severity zones or the WUI would be obligated to conform to the statutory and regulatory requirements of federal, state, and local regulations as discussed in Section 4.9.2. Implementation of the transportation network improvements and programs would increase the exposure of additional people and structures but not at a level greater than the existing 2012 risk.

Therefore, the transportation network improvements and programs associated with the proposed Plan would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland. Impacts would be less than significant.

**2035 Conclusion**

Given the relatively large amount of area within the San Diego region considered at high risk for wildland fires, additional regional growth and land use change forecasted by 2035, but not transportation network improvements and programs, would expose additional people and structures to a significant risk of loss, injury, or death involving wildland fires; development would occur in closer proximity to WUI and Fire Hazard Severity zones. Therefore, this impact (HAZ-5) in the year 2035 is significant.

**2050**

**Regional Growth and Land Use Change**

Regional growth and land use change by 2050 would include conversion of undeveloped lands, as well as infill development within the existing communities. Approximately 75 percent of the forecasted regional population increase by 2050 is in the City of San Diego (49 percent), County of San Diego (16 percent), and City of Chula Vista (10 percent). Similarly, these three jurisdictions accommodate approximately 79 percent of new housing units and 71 percent of new jobs, respectively, by 2050.

By 2050, regional growth in proximity to WUI and Fire Hazard Severity zones as shown in Figure 4.9-2 would contribute to the risk of loss, injury, or death involving wildland fires. Additional regional growth and land use change forecasted by 2020 would occur in areas at high risk for wildland fires and expose additional people and structures to a significant risk of loss, injury, or death involving wildland fires; development would occur closer to WUI and Fire Hazard Severity zones.
The existing policies and regulations included in Section 4.9.2 as they relate to fire code regulations, the Multi-Jurisdictional Hazards Mitigation Plan, as well as local general plans, policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, and public outreach, coupled with the strategies above would help reduce the risks to people and structures associated with wildland fires. However due to the relatively large amount of area within the San Diego region considered at high risk for wildland fires the risk regional growth and land use change associated with the proposed Plan would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland. Impacts would be significant. Therefore, impacts related to the exposure of additional people and structures to risk of loss, injury, or death involving wildland fires would be significant.

**Transportation Network Improvements and Programs**

Transportation network improvements and programs in place by 2050 would be located in areas that are susceptible to wildland fires. Any transportation network improvements constructed in fire hazard severity zones or the WUI would be obligated to conform to the statutory and regulatory requirements of federal, state, and local jurisdictions as discussed in Section 4.9.2. Implementation of the transportation network improvements and programs would increase the exposure of additional people and structures but not at a level greater than the existing 2012 risk.

Therefore, the transportation network improvements and programs associated with the proposed Plan would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland. Impacts would be less than significant.

**2050 Conclusion**

Given the relatively large amount of area within the San Diego region considered at high risk for wildland fires, additional regional growth and land use change forecasted by 2050, but not transportation network improvements and programs, would expose additional people and structures to a significant risk of loss, injury, or death involving wildland fires; development would occur in closer proximity to WUI and Fire Hazard Severity zones. Therefore, this impact (HAZ-5) in the year 2050 is significant.
MITIGATION MEASURES

HAZ-5 Wildfire Risk

2020, 2035, and 2050

HAZ-5A Reduce Wildfire Risk. During planning, design and project-level CEQA review of development projects located in known High Fire Hazard Areas, the County of San Diego, cities, and other local jurisdictions can and should ensure that project sponsors and project applicants implement measures to reduce impacts from wildfires. Such measures include, but are not limited to:

- Designing buffer zones in areas within the WUI to reduce fuel adjacent to high population centers;
- Ensuring sufficient emergency water supply for existing and new projects by working with water management agencies and plans;
- Building and remodeling existing structures to be more fire resistant;
- Minimizing exposure to and loss from fire hazards by avoiding development in high risk areas or designing developments in high-risk areas with ignition-resistant construction; and
- Establishing fuel management strategies in high risk areas.

HAZ-5B Ensure Emergency Response Services. During planning, design, and project-level CEQA review of development projects, the County of San Diego, cities, and other local jurisdictions can and should reduce impacts of wildfires on people and structures by ensuring that:

- Adequate emergency response services, emergency response times, and emergency plans are in place.
- Emergency response services and emergency response times and plans are or will be available to meet service levels identified in the applicable local general plan or service master plan. This should be documented in the form of a capacity analysis or provider will-serve letter.
- Fire access road network plans are or will be available for inclusion in Community Plans or other planning documents.
- Fire apparatus access roads and secondary access for projects are provided.

SIGNIFICANCE AFTER MITIGATION

2020, 2035, 2050

Mitigation Measures HAZ-5A and HAZ-5B reduce this impact (HAZ-5) by requiring measures to preclude or substantially reduce risks from wildland fires in High Fire Hazard areas by requiring specific design features for new development and by requiring adequate emergency response is in place to serve new development when wildfires occur. However, these mitigation measures do not reduce this impact (HAZ-5) to a less than significant level in all locations for all future wildfires through 2050 due to the relatively large amount of area within the San Diego region considered at high risk for wildland fires and the level of uncertainty regarding the location, frequency, and severity of future wildfires. For these reasons, it cannot be concluded that wildland fire risks would be reduced to less than significant in all locations for all future development projects. Because there are no feasible mitigation measures to reduce this impact to less than significant, this impact (HAZ-5) remains significant and unavoidable.
4.9 Hazards and Hazardous Materials

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