

HAZARDS AND HAZARDOUS MATERIALS

This section of the Program Environmental Impact Report (PEIR) describes the hazards and hazardous materials in the SCAG region, discusses the potential impacts of the proposed 2016 Regional Transportation Plan/Sustainable Communities Strategy (“2016 RTP/SCS,” “Plan,” or “Project”) in relation to posing risk or hazards to people or property from hazards or hazardous material, identifies mitigation measures for the impacts, and evaluates the residual impacts. The potential for the 2016 RTP/SCS to expose people or property to risk from hazards or hazardous materials was evaluated in accordance with Appendix G of the 2015 State California Environmental Quality Act (CEQA) Guidelines. The potential to expose people or property to risks from hazards or hazardous materials within the SCAG region was evaluated at the programmatic level of detail, in relation to the general plans of the six counties and the 191 cities within the SCAG region, a query of government data bases, a review of related literature germane to the SCAG region, as well as a review of SCAG’s 2012 RTP/SCS PEIR.¹

The quality of the environment in the SCAG region has been changed over time. In particular, changes due to the industrial revolution, dating to the 18th and 19th centuries, have affected the quality and healthfulness of air, water, and soil resources that are essential to well-being of humans and the other organisms that depend on natural habitats. These changes can be expressed as increased levels of natural occurring components such as trace metals and nutrient, and additional anthropogenic compounds, such as polychlorinated biphenyls (PCBs), and pesticides. Prior to the 1960s there was limited regulation of agriculture and manufacturing and the disposal of waste materials from these industries, as well as from the general public. This lack of regulation allowed the concentration of natural and anthropogenic compounds to persist in soil, water, and air, at unhealthful levels. Numerous regulations were enacted in the late 1960s and early 1970s in an effort to manage and remediate hazards and hazardous materials. The SCAG region lies within U.S. Environmental Protection Agency (EPA) Region 9, which has the responsibility for designation and oversight of Superfund sites on the National Priorities List. There are 13 Superfund sites on the National Priorities List in the SCAG region, including seven sites in the process of being cleaned up during the period of preparation of this PEIR.²

Definitions

Definitions of terms used in the regulatory framework, characterization of baseline conditions, and impact analysis for hazards and hazardous materials are provided.

Certified Unified Program Agencies: California Unified Program Agencies (CUPA) implement the hazardous waste and material standard including petroleum storage, areas plans for hazardous material emergencies, California Accidental Release Prevention (CalARP) Program, hazardous materials release response plans and inventories, hazardous material management plan and inventory statements, onsite waste treatment program, and underground storage tank program. The CalARP program was

¹ Southern California Association of Governments. April 2012. Final Program Environmental Report: 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy. Available at: <http://rtpscs.scag.ca.gov/Pages/Final-2012-PEIR.aspx>

² U.S. Environmental Protection Agency. Accessed 9 September 2015. *Pacific Southwest, Region 9. Map of Superfund Sites in Southern California*. Available at: <http://www.epa.gov/region9/socal/superfund/sfund-map.html>

implemented on 1997 to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. This is accomplished by requiring businesses that handled regulated substance above a threshold to develop a risk management plan with safety information, operating procedures, and training requirements, compliance audits, and other incident investigation measures to reduce accidental release potential.

Contaminated Sites: The California Department of Toxic Substances Control (DTSC) maintained a database, known as “CalSites,” which contained information on properties in California where hazardous substances were released, or where the potential for a release existed. In 2006, DTSC launched its brownfields site database, EnviroStor, which replaced the CalSites database. EnviroStor includes identification of formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Federal Emergency Management Agency: SCAG is under the jurisdiction of FEMA Region 9. In Southern California, FEMA Region 9 specifically plans for hazards such as major earthquakes and wildfires.

Hazardous Material: The term “hazardous material” can have varying definitions depending on the regulatory programs. For the purposes of this PEIR, the term refers to both hazardous materials and hazardous wastes. The California Health and Safety Code Section 25501(p) defines hazardous material as follows:

Hazardous material means any material that because of its quantity, concentrations, 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. Hazardous materials include but are not limited to hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Soil and groundwater can become contaminated by hazardous material released in a variety of ways, including permitted or illicit use and accidental or intentional disposal or spillage. Before the 1980s, most land disposal of chemicals was unregulated, resulting in numerous industrial properties and public landfills becoming dumping grounds for unwanted chemicals. In general, the largest and most contaminated of these sites became federal Superfund sites in the early 1980s, so named for their eligibility to receive cleanup money from a federal fund established for that purpose under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). Sites are added to the National Priorities List (NPL) following a hazard ranking system. The U.S. EPA maintains this list of federal Superfund sites, as well as a more extensive list of all sites with potential to be listed known as Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).

Numerous smaller properties also have been designated as contaminated sites. Often, these are gas station sites, where leaking underground storage tanks were upgraded under a federal requirement in the late 1980s. Another category of sites, which may have some overlap with the types already

mentioned, is brownfields sites. Brownfields sites are those areas that were previously used for industrial purposes or certain commercial uses. The land may be contaminated by low concentrations of hazardous waste or pollution, and has the potential to be reused once it is cleaned up. Both the U.S. EPA and DTSC maintain lists of known brownfield sites. These sites are often difficult to inventory due to their owners' reluctance to publicly label their property as potentially contaminated. In California, numerous regulatory barriers have blocked effective reuse of brownfields sites, including uncertainty as to cleanup levels and ultimate cleanup cost. Senate Bill (SB) 32, adopted in 2001, establishes a locally based program to help speed the cleanup and reuse of brownfields sites.

Hazardous Waste: A "hazardous waste" is a waste that poses substantial or potential threats to public health or the environment. Hazardous wastes are defined under the Resource Conservation and Recovery Act (RCRA) as exhibiting one or more of the characteristics identified below:

Toxic Substances: Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels. The level depends on the substances involved and is chemical-specific. Carcinogens (substances that can cause cancer) are a special class of toxic substances. Examples of toxic substances include benzene (a component of gasoline and a suspected carcinogen) and methylene chloride (a common laboratory solvent and a suspected carcinogen).

Ignitable Substances: Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.

Corrosive Materials: Corrosive materials can cause severe burns. Corrosives include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).

Reactive Materials: Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

Radioactive Materials: Materials that emit radiation resulting from changes in the nuclei of atoms of the element.

By definition, EPA determined that some specific wastes are hazardous when they exhibit the characteristics of ignitability, reactivity, corrosivity, and toxicity. Once a site is determined hazardous, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides mechanism and assign liabilities for cleanup of the sites. The actions may involve short-term measures taken to address releases, long-term actions to permanently and significantly reduce the risk of release of hazardous substances, and a preliminary assessment/site inspection then a remedial investigation/feasibility study.

Office of Emergency Services: The Office of Emergency Services (OES) is an agency responsible for overseeing and coordinating emergency preparedness, response, recovery and homeland security activities, in cooperation with fire and law and other enforcement agencies. Each county within the SCAG region has an OES which is responsible for coordinating and maintaining resources necessary for first responders to protect the community. In addition to maintaining a Material Safety Data Sheets (MSDS), notifications to the OES must be made when there is a hazardous material incident or spill that

may require clean-up. OES is responsible for preparing, and gathering information on incident, participate in offering guidance to residents and communities affected by incident, coordinating with FEMA, state, and county/city agencies for other needed resource, and implement a reduction of risk program to prevent future accidents causing physical and natural or human casualties.

Spill Cleanup Site: Facilities with aboveground oil storage facilities greater than 1,320 gallons of oil and/or with total aggregate capacity of completely buried storage tanks greater than 42,000 gallons of oil are subjected to Spill Prevention Control and Countermeasure (SPCC) rules. These facilities need to be regulated to prevent discharge of oil into navigable waters or adjoining shorelines. Owners of a facility develop a response plan to prepare and respond to oil discharge or threats of discharge during drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil. The U.S. EPA is the lead federal response agency for providing cleanup of oil spills to prevent, prepare for, and respond to spills that occur in and around inland waters of the U.S.

State Response System: The State of California's response system is represented by the Department of Fish and Wildlife (CDFW), Office of Oil Spill Prevention and Response (OSPR), local government, and the U.S. Coast Guard. Section 8670.7 of the California Government Code establishes that the Administrator of OSPR has the primary state authority to direct removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in the marine waters of the state.

Superfund Sites: Superfund sites generally refer to contaminated sites that have been designated by EPA on the National Priorities List that are eligible for funding from the trust fund (the "Superfund") established by EPA for cleaning up abandoned or uncontrolled hazardous waste sites pursuant to CERCLA. CERCLA was enacted in the wake of the discovery of toxic waste dumps such as Love Canal and Times Beach in the 1970s. It allows the U.S. EPA to clean up such sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-led cleanups.

Voluntary Cleanup Program (VCP): The VCP is a program administered by the California Environmental Protection Agency's Department of Toxic Substances Control (DTSC), and was introduced as a streamlined program to protect human health, clean up the environment and get property back to productive use. Corporations, real estate developers, local and state agencies entering into Voluntary Cleanup Program agreements are able to restore properties quickly and efficiently, rather than having their projects compete for DTSC's limited resources with other low-priority hazardous waste sites. State voluntary cleanup programs have played a major role in cleaning up brownfields since the 1990s. Through a nonbinding memorandum of agreement, the U.S. EPA partnered with the state to provide resource and coordination of Superfund sites to meet Resource Conservation and Recovery Act (RCRA) liabilities and provide corrective actions to provide "one cleanup" approaches. Selection of sites eligible for VCPs are provided under EPA's March 2003 guidance that exclude sites from "eligible response site" when not meeting regional determinations under Section 101(41)(C)(i) of CERCLA.³

³ California Environmental Protection Agency. Accessed 11 September 2015. *Guidance on Regional Determination Regarding Eligible Response Sites*. Available at: <http://www2.epa.gov/enforcement/guidance-regional-determinations-regarding-eligible-response-sites>

3.9.1 REGULATORY FRAMEWORK

Federal

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act (29 Code of Federal Regulations [CFR] Parts 70 to 2400), which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in 29 CFR Section 1910 et seq., are designed to promote worker safety, worker training, and a worker's right-to-know. In California, OSHA has delegated the authority to administer OSHA regulations to the State of California.

Hazardous Materials Transportation Act of 1975

The Hazardous Materials Transportation Act (Title 49 U.S. Code [USC] Sections 5101–5127) is the principal federal law regulating the transportation of hazardous materials. Its purpose is to “protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce” under the authority of the U.S. Secretary of Transportation.

Regulations implementing the Hazardous Materials Transportation Act of 1975 specify additional requirements and regulations with respect to the transport of hazardous materials. For example, the Act requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Drivers are also required to be trained in function and commodity specific requirements.

Response Conservation and Recovery Act (RCRA)

The RCRA of 1976 (42 USC 2) was the first major federal act regulating the potential health and environmental problems associated with hazardous and nonhazardous solid waste. RCRA and the implementation regulations developed by the U.S. EPA provide the general framework for the national hazardous and nonhazardous waste management systems. This framework includes the determination of whether hazardous wastes are being generated, techniques for tracking wastes to eventual disposal, and the design and permitting of hazardous waste management facilities.

RCRA amendments enacted in 1984 and 1986 began the process of eliminating land disposal as the principal hazardous waste disposal method. Hazardous waste regulations promulgated in 1991 address site selection, design, construction, operation, monitoring, corrective action, and closure of disposal facilities. Additional regulations addressing solid waste issues are contained in 40 CFR, Part 258.

Hazardous Materials Transportation Act (HMTA)

Enacted in 1975, the HMTA (49 USC 51, Sections 5101 et seq.) is the principal federal law regulating the transportation of hazardous materials. Its purpose is to “protect against the risks to life, property, and

the environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce” under the authority of the U.S. Secretary of Transportation.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA (1980; 42 USC Sections 1906 et seq.), also known as the Superfund Act, outlines the potential liability related to the cleanup of hazardous substances; available defenses to such liability; appropriate inquiry into site status under Superfund, which is the federal government’s program to clean up the nation’s uncontrolled hazardous waste sites; statutory definitions of hazardous substances and petroleum products; and the petroleum product exclusion under CERCLA. CERCLA provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also establishes the National Contingency Plan (NCP), which provides guidelines and procedures necessary to respond to releases and threatened releases of hazardous substances.

Emergency Planning and Community Right-to-Know Act (EPCRA)

The EPCRA of 1986 (42 USC 116, Sections 9601 et seq.) was created to help communities plan for emergencies involving hazardous substances. EPCRA requires hazardous chemical emergency planning by federal, state, and local governments; Native American tribes; and industry. It also requires industry to report on the storage, use, and releases of hazardous chemicals to federal, state, and local governments.

Superfund Amendment and Reauthorization Act (SARA), Title III

SARA, Title III, of 1986 is the Emergency Planning and Community Right-to-Know Act (40 CFR Parts 350–372). Facilities are required to report the following items on U.S. EPA Form R, the Toxic Chemical Release Inventory Reporting Form: facility identification, off-site locations where toxic chemicals are transferred in wastes, chemical-specific information, and supplemental information.

Form R requires a facility to list the hazardous substances that are handled on-site and to account for the total aggregate releases of listed toxic chemicals for the calendar year. Releases to the environment include emissions to the air, discharges to surface water, and on-site releases to land and underground injection wells.

Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, and Related Authorities

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707), signed into law on November 23, 1988, amended the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory authority for most federal disaster response activities especially as they pertain to FEMA and FEMA programs.

Disaster Mitigation Act (DMA) of 2000

DMA 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.

Federal Emergency Management Agency (FEMA) Regulation

FEMA's mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA leads and supports the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery and mitigation.

In March 2003, the Federal Emergency Management Agency (FEMA) became a department of the U.S. Department of Homeland Security (DHS), pursuant to 44 CFR, Chapter 1 Part 201. The primary mission of FEMA is to reduce the loss of life and property and protect the nation from all hazards, including natural disasters, acts of terrorism, and other human-made disasters, by leading and supporting the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. SCAG is under the jurisdiction of FEMA Region 9, which covers Arizona, California, Hawaii, Nevada, Guam, American Samoa, Commonwealth of Northern Mariana Islands, Republic of Marshall Islands, Federated State of Micronesia, and more than 150 sovereign tribal entities. In Southern California, FEMA Region 9 specifically plans for hazards such as major earthquakes and wildfires. A catastrophic earthquake could result in 1,800 fatalities, 9 million people displaced, and \$200 billion in losses.

Presidential Policy Directive 8: National Preparedness

The National Response Framework (NRF) is an essential component of the National Preparedness System mandated in Presidential Policy Directive 8: National Preparedness (PPD-8). PPD-8 is aimed at strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the Nation. PPD-8 defines five mission areas—Prevention, Protection, Mitigation, Response, and Recovery—and mandates the development of a series of policy and planning documents to explain and guide the Nation's collective approach to ensuring and enhancing national preparedness. The NRF presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The National Response Plan was replaced by the NRF effective March 22, 2008 and updated May 2013.

The NRF defines the principles, roles, and structures that organize response protocols as a nation. The NRF:

- Describes how communities, tribes, states, the federal government, private-sectors, and nongovernmental partners work together to coordinate national response;
- Describes specific authorities and best practices for managing incidents; and
- Builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents.

Title 40 - Protection of Environment, Chapter 1 - Environmental Protection Agency (Continued) CFR Part 68 - Chemical Accident Prevention Provisions

This part sets forth the list of regulated substances and thresholds, the petition process for adding or removing substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the state accidental release prevention programs approved under Section 112(r).

State

Hazardous Waste Control Law of 1972

The Hazardous Waste Control Act (Health and Safety Code Sections 25100 et seq.) created the state hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The Act is implemented by regulations contained in Title 26 of the California Code of Regulations (CCR), which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Hazardous Materials Release Response Plans and Inventory Law of 1985

The Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act; HSC Division 20 Chapter 6.95 [25500–25547.8]) governs hazardous materials handling, reporting requirements, and local agency surveillance programs.

California Disaster Assistance Act (CDAA)

The California Disaster Assistance Act (CDAA; CCR Title 19, Chapter 6) authorizes the Director of the California Governor's Office of Emergency Services (Cal OES) to administer a disaster assistance program that provides financial assistance from the state for costs incurred by local governments as a result of a disaster event. Funding for the repair, restoration, or replacement of public real property damaged or

destroyed by a disaster is made available when the Director concurs with a local emergency proclamation requesting state disaster assistance.

Hazardous Substances Account Act (State Superfund) (HSC Sections 25300–25301)

Chapter 6.8 of the California Health and Safety Code requires the DTSC to include “the largest manageable number” of potentially responsible parties (PRPs) in any cleanup order that applies to a multiple PRP site after considering certain factors, including the adequacy of the evidence of each PRP's liability, the financial viability of each PRP, and the degree to which each PRP contributed to the release of hazardous substances at the site.

California Vehicle Code

The California Vehicle Code (Title 13 of the CCR) establishes regulations for motor carrier transport of hazardous materials. For example, all motor carrier transporters of hazardous materials are required to have a Hazardous Materials Transportation license issued by the California Highway Patrol. In addition, placards identifying that hazardous materials are being transported must be displayed on the vehicle.

California Health and Safety Code

The transport of hazardous waste materials is further governed by California Health and Safety Code Section 25163 and Title 22, Chapter 13, of the CCR. Specifically, Section 25163 of the Health and Safety Code requires transporters of hazardous waste to hold a valid registration issued by the DTSC in his/her possession while transporting hazardous waste. Additionally, Title 22, Chapter 13, of the CCR includes a number of requirements, which include, but are not limited to, the following:

- Transporters shall not transport hazardous waste without first receiving an identification number and a registration certificate from DTSC;
- Registration as a hazardous waste transporter expires annually, on the last day of the month in which the registration was issued;
- To be registered as a hazardous waste transporter, an application must be submitted;
- Hazardous waste shall not be accepted for transport without a Uniform Hazardous Waste Manifest that has been properly completed and signed by generator and transporter; and
- Hazardous waste shall be delivered to authorized facilities only.

California Emergency Services Act (AB 38)

AB 38 gave Cal EMA responsibility for overseeing and coordinating emergency preparedness, response, recovery, and homeland security activities in the state. The Governor's Office of Emergency Services (OES) mission statement is “Protect lives and property, build capabilities, and support our communities for a resilient California.” OES goals include:

- Goal 1.** Anticipate and enhance prevention and detection capabilities to protect our State from all hazards and threats.

- Goal 2.** Strengthen California’s ability to plan, prepare for, and provide resources to mitigate the impacts of disasters, emergencies, crimes, and terrorist events.
- Goal 3.** Effectively respond to and recover from both human-caused and natural disasters.
- Goal 4.** Enhance the administration and delivery of all state and federal funding, and maintain fiscal and program integrity.
- Goal 5.** Develop a united and innovative workforce that is trained, experienced, knowledgeable, and ready to adapt and respond.
- Goal 6.** Strengthen capabilities in public safety communication services and technology enhancements.

2013 State Hazard Mitigation Plan (SHMP)

Approved by FEMA on September 30, 2013, as an Enhanced State Mitigation Plan, the 2013 SHMP 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. Resilience depends on the whole community and is a shared responsibility for all levels of government, private and nonprofit sectors, and individuals.

Hazardous Materials Release Cleanup (Assembly Bill (AB) 440 Chapter 588)

AB 440 Chapter 588, passed into law in 2013, authorizes a local agency to take clean up action similar to that under the Polanco Redevelopment Act that the local agency determines is necessary, consistent with other state and federal laws, to remedy or remove a release of hazardous substances within the boundaries of the local agency. AB 440 allows the local agency to designate another agency, in lieu of the department or the regional board, to review and approve a cleanup plan and to oversee the cleanup of hazardous material from a hazardous material release site, under certain conditions. It also provides immunity to the local agency as long as the action is in accordance with a cleanup plan prepared by a qualified independent contractor, and approved by the department, a regional board, or the designated agency, and the cleanup is undertaken and properly completed. Finally, AB 440 authorizes the local agency to recover cleanup costs from the responsible party.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are: Hazardous Waste Generator and On-Site Hazardous Waste Treatment Programs (aka Tiered Permitting); Aboveground Petroleum Storage Tank Spill Prevention Control and Countermeasure Plan (SPCC); Hazardous Materials Release Response Plans and Inventory Program (aka Hazardous Materials Disclosure or “Community-Right-To-Know”); California Accidental Release Prevention Program (Cal ARP); UST Program; and Uniform Fire Code Plans and Inventory Requirements. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed

programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP; CCR Title 19, Division 2, Chapter 4.5) was implemented on January 1, 1997, and replaced the California Risk Management and Prevention Program (RMPP). The CalARP program encompasses both the federal "Risk Management Program," established in the Code of Federal Regulations, Title 40, Part 68, and the State of California program, in accordance with the Title 19 of the California Code of Regulations, Division 2, Chapter 4.5.

The main objective of the CalARP program is to prevent accidental releases of those substances determined to potentially pose the greatest risk of immediate harm to the public and the environment, and to minimize the consequences if releases do occur. These substances are called regulated substances and include both flammable and toxic hazardous materials listed on the Federal Regulated Substances for Accidental Release Prevention and on the State of California Regulated Substances lists. Businesses that handle regulated substances in industrial processes above threshold quantity levels are subject to CalARP program requirements.

The CalARP program requires businesses to have planning activities that are intended to minimize the possibility of an accidental release by encouraging engineering and administrative controls. It is further intended to mitigate the consequences of an accidental release, by requiring owners or operators of facilities to develop and implement an accident prevention program.

Local

Certified Unified Program Agencies (Senate Bill 1082)

Californians are protected from hazardous waste and materials by a unified program that ensures consistency throughout the state in regards to administrative requirements, permits, inspections, and enforcements. The goal of the CUPA is to create a more cohesive, effective, and efficient program. Under the CUPA, application and required submission forms are standardized and consolidated, inspections are combined where possible, annual fees for each program element are merged into a single fee system, and enforcement procedures are made more consistent. The program elements consolidated under the CUPA are:

- Hazardous waste generator and onsite hazardous waste treatment programs (a.k.a. Tiered permitting);
- Aboveground petroleum storage tank spill prevention control and countermeasure plan (SPCC);
- Hazardous materials release response plans and inventory program (a.k.a. hazardous materials disclosure or community-right-to-know)
- California Accidental Release Prevention Program (Cal ARP);
- Underground storage tank program (UST); and
- Uniform fire code plans and inventory requirements

CalEPA oversees the program, and certifies 83 local government agencies, including 37 in the SCAG region. Local agencies administering one or more of the six program elements have the option to either apply for CUPA status within the CalEPA or retain their programs by becoming a participating agency under another CUPA's jurisdiction. Some examples of the agencies that are participating under the CUPA are fire departments, environmental and health branches, Department of Toxic Substances Controls within city and municipal governments.

County General Plans

In addition to federal and state requirements, general plans and municipal codes of counties and cities in the SCAG region may include safety elements that goals and policies related protecting people and property from risks from hazards and hazardous materials.

Los Angeles County General Plan

The Safety Element of the Los Angeles County General Plan 2035 Update, in conjunction with the All-Hazard Mitigation Plan prepared by the Chief Executive Office, Office of Emergency Management (CEO OEM), sets strategies for natural and man-made hazards in Los Angeles County. The All-Hazard Mitigation Plan, which has been approved by FEMA and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in Los Angeles County.

San Bernardino County General Plan

The San Bernardino County General Plan contains implementation programs related to reduction of household hazardous waste.

Imperial County General Plan

The Land Use Planning and Public Safety and Emergency Preparedness Elements of the Imperial County General Plan have established goals related to protection of public health and safety for consideration in the land use planning process. The specified goals and objectives are intended to minimize potential hazards to public health and safety, and prevent the loss of life and damage to properties, and rely heavily on ensuring conformance with established applicable state codes. The General Plan has specific goals related protecting the public from exposure to hazardous materials and wastes, by discouraging the transport of hazardous materials/waste near or through residential areas and critical facilities, measures to minimize the possibility of hazardous materials/waste spills, land use planning policies to discourage incompatible development adjacent to sites and facilities for the production, storage, disposal, and transport of hazardous materials/waste as identified in the County General Plan and other regulations, and an established objective of adopting and ordinances, policies, and guidelines that assure the safety of Imperial County ground and surface waters from toxic or hazardous materials and wastes.

Orange County General Plan

The Safety Element of the Orange County General Plan provides for the protection of people and property from risks associated with hazards and hazardous materials through the implementation of

mitigation measures as outlined in the California Emergency Plan, the California Master Mutual Aid Agreement, the Orange County Emergency Plan, the Orange County Operational Area Plan, S.O.N.G.S. Plan, County of Orange and Orange County Fire Authority Hazard Mitigation Plan, and other emergency management plans. The Safety Element of the Orange County General Plan focuses primarily upon the County's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, intentional acts of terrorism and nuclear protection operations. To reduce the County's susceptibility and vulnerability to extraordinary emergency situations, the Safety Element recommends continued emphasis is placed on several coordinated efforts:

- Mitigation
- Emergency planning
- Training of full-time, auxiliary, and reserve personnel
- Public awareness and education; and assuring the adequacy and availability of sufficient resources to cope with such emergencies

On March 15, 2011, the Board of Supervisors adopted the County of Orange and Orange County Fire Authority Hazard Mitigation Plan (HMP) in compliance with federal and state regulations.

Ventura County General Plan

The Safety Element of the Ventura County General Plan contains specific goals to minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment and disposal of hazardous materials and hazardous wastes. Additionally specific goals are identified to locate potentially hazardous facilities and operations in areas that would not expose the public to a significant risk of injury, loss of life, or property damage. The plan identifies five policies and 13 programs related to the management of hazards and hazardous materials.

City General Plans

The SCAG region spans six counties and 191, each of which has a general plan containing policies related to hazards and hazardous materials. Additional plans and ordinances at the master plan level, city-level, and specific plan level may also apply within the SCAG region. Furthermore, fire departments and other agencies in the SCAG region have a variety of local laws that regulate reporting, storage, handling, and transporting hazardous substances and materials.

3.9.2 EXISTING CONDITIONS

This section discusses the existing conditions related to hazardous materials in the SCAG region, including an overview of the presence of hazardous materials and the potential for impacts to occur as a result of the 2016 RTP/SCS, including increased transportation of hazardous materials as a result of increased transportation facilities, increased use of hazardous materials and generation of wastes as a result of increased development including industrial and other uses, the potential to expose school facilities to hazardous materials, the potential to increase hazards from public and private airports, the potential to impair implementation or physically interfere with an adopted emergency response plan, and the potential to expose people or structures to risk involving wildland fires.

Routine Transport, Use, or Disposal of Hazardous Materials

There are several risks associated with the transportation-related use of hazardous materials in the SCAG region. Actual transport of hazardous materials via truck, rail, and other modes involves a degree of risk of accident and release. The use of hazardous materials and the generation of hazardous waste in the construction and maintenance of the transportation system are other avenues for risk or exposure. Finally, the past disposal of hazardous materials in a manner that creates residual contamination of soil or water can be a source of risk when such sites are disturbed in the course of future transportation projects or associated development. Each of these avenues is discussed below.

Hazardous materials move through the SCAG region by a variety of modes: truck, rail, air, ship, and pipeline. According to the Office of Hazardous Materials Safety (OHMS) in the U.S. Department of Transportation (U.S. DOT), hazardous materials shipments can be regarded as equivalent to deliveries, but any given shipment may involve one or more movements, or trip segments, that may occur by different modes. For instance, a shipment might involve initial pickup by truck (one movement), a transfer to rail (a second movement), and a final delivery by truck again (for a total of three movements). Each movement of hazardous materials implies a degree of risk, depending on the material being moved, the mode of transport, and numerous other factors.

According to the U.S. DOT Bureau of Statistics Commodity Flow Survey (CFS) data, there were approximately 2.5 billion tons of hazardous materials shipments in the United States in 2012. Trucks move more than one-half of all hazardous materials shipped from a location in the United States (Table **3.9.2-1, Hazardous Material Shipments in the United States**). By contrast, rail accounts for only 7 percent of shipments.⁴ According to the U.S. DOT, Bureau of Statistics, in 2012, nearly 20 million tons of hazardous materials were moved in the SCAG region, with the majority being moved via truck (Table **3.9.2-2, Hazardous Material Shipments in the SCAG Region**).

⁴ U.S. Department of Transportation, Bureau of Transportation Statistics. 2012. *Hazardous Materials Commodity Flow Survey, 2012*.

**TABLE 3.9.2-1
HAZARDOUS MATERIAL SHIPMENTS IN THE UNITED STATES**

Mode	Total Commercial Freight Activity (thousand tons)	Hazardous Materials Shipped (thousand tons)	Percent of Hazardous Materials Shipped
Truck	8,060,166	1,531,405	19%
Pipeline	635,975	626,652	99%
Rail	1,628,537	110,988	7%
Water	575,996	283,561	49%

SOURCE:

U.S. Department of Transportation, Bureau of Transportation Statistics. 2012. *Hazardous Materials Commodity Flow Survey, 2012*.

U.S. Department of Transportation, Bureau of Transportation Statistics. 2007. *Commodity Flow Survey*.

**TABLE 3.9.2-2
HAZARDOUS MATERIAL SHIPMENTS IN THE SCAG REGION**

Mode	Total Commercial Freight Activity (thousand tons)	Hazardous Materials Shipped (thousand tons)	Percent of Hazardous Materials Shipped
Truck	11,712	1,159.5	53%
Pipeline	3,529	661.4	30%
Rail	1,979	109.4	5%
Water	1,668	228.2	10%

SOURCE:

U.S. Department of Transportation, Bureau of Transportation Statistics. 2012. *Hazardous Materials Commodity Flow Survey, 2012*.

U.S. Department of Transportation, Bureau of Transportation Statistics. 2007. *Commodity Flow Survey*.

Aside from rail, pipeline, and water shipments, hazardous materials transported through the SCAG region make use of many of the same freeways, arterials, and local streets as other traffic in the region. This creates a risk of accidents and associated release of hazardous materials for other drivers and for people along these routes, as does the use of rail modes for hazardous materials shipments. According to the U.S. DOT, Hazardous Materials Information System, from 2005 to 2014, highways accounted for the largest share of hazardous materials incidents, with a total of 166,004 incidents or 86 percent of total incidents. Air accounted for 9 percent of total hazardous materials incidents, followed by rail and water transport.⁵ There are 20 hazardous material treatment storage and disposal facilities in the SCAG region (**Table 3.9.2-3, Hazardous Material Treatment Storage and Disposal Facilities in the SCAG Region**).

⁵ U.S. State Department of Transportation. Accessed 19 July 2015. *Hazardous Materials Information System*. Available at: https://hip.phmsa.dot.gov/analyticsSOAP/saw.dll?Dashboard&NQUser=HazmatWebsiteUser1&NQPassword=HazmatWebsiteUser1&PortalPath=/shared/Public%20Website%20Pages/_portal/10%20Year%20Incident%20Summary%20Reports

**TABLE 3.9.2-3
HAZARDOUS MATERIAL TREATMENT STORAGE AND DISPOSAL FACILITIES IN THE SCAG REGION**

Facility Name	Handler ID	Address (click for map)	Contact	Operator	Wastes Handled
Clean Harbors Los Angeles, LLC	CAD050806850	5756 Alba Street Los Angeles, CA 90058	Contact: Roger R Fox, 3232772528	Operator: Clean Harbors Los Angeles, LLC	Mixed media/debris/devices; inorganic liquids; organic liquids; inorganic solids; organic solids; inorganic sludges; organic sludges
Clean Harbors Westmorland, LLC	CAD000633164	5295 S Garvey Rd Westmorland, CA 92281	Contact: Andrew M Yadvish, 7603449400 Ext. 4004	Operator: Clean Harbors Westmorland LLC	Inorganic sludges;
Crosby & Overton	CAD028409019	1610 West 17th Street Long Beach, CA 90813	Contact: Michael A Shlob, 5624325445 Ext. 228	Operator: Crosby And Overton INC	Mixed media/debris/devices; inorganic liquids; organic liquids; inorganic solids; organic solids
Demunno / Kerdoon	CAT080013352	2000 North Alemeda Street Compton, CA 90222	Contact: Bonnie Booth, 3105377100 Ext. 224	Operator: Demunno / Kerdoon	
DK Environmental	CAT080033681	3650 East 26th Street Los Angeles, CA 90023	Contact: Rosemary Domino, 3232685056 Ext. 108	Operator: DK Environmental	
Filter Recycling Services, Inc.	CAD982444481	180 West Monte Avenue Rialto, CA 92376	Contact: Wade K Riddering, 9098734141	Operator: Filter Recycling Services, Inc.	
GCE Industries, Inc	CAD981377492	1891 Nirvana Ave Chula Vista, CA 91911	Contact: Charles W Ball, 6194211151 Ext. 254	Operator: GCE Industries, Inc	
Heraeus Metal Processing, Inc.	CAD060398229	13429 Alondra Blvd. Santa Fe Springs, CA 90670	Contact: Peter Eckert, 5624831830	Operator: Heraeus Metal Processing, Inc.	Mixed media/debris/devices; inorganic liquids; inorganic solids;
Lighting Resources Inc	CAL000827758	805 Francis St Ontario, CA 91761	Contact: Dan P Gillespie, 9099237252 Ext. 14	Operator: Dan Gillespie	Inorganic solids;
Onyx Environmental Services, L.L.C.	CAD008302903	1704 W First St Azusa, CA 91702	Contact: Javed Hussain, 6268152220	Operator: Onyx Environmental Services	Mixed media/debris/devices; inorganic liquids; organic liquids; inorganic solids; organic solids; inorganic sludges; organic sludges
Pacific Resource Recovery Services	CAD008252405	3150 East Pico Blvd. Los Angeles, CA 90023	Contact: Mark Russell, 3232618114 Ext. 343	Operator: Pacific Resource Recovery	Organic liquids
Phibro-Tech, Inc.	CAD008488025	8851 Dice Road Santa Fe Springs, CA 90670	Contact: Marty Voss, 5626988036 Ext. 120	Operator: Phibro-Tech, Inc.	Inorganic liquids; inorganic solids
Quemetco, Inc.	CAD066233966	720 S. 7th Avenue City of Industry, CA 91746	Contact: Neal I Lyon, 6263302294 Ext. 242	Operator: Quemetco, Inc.	Mixed media/debris/devices
Raytheon Co Space And Airborne Systems	CAD000633230	2000 E El Segundo Blvd El Segundo, CA 90245	Contact: Dean D Richardson, 3103347385	Operator: Raytheon Co	Mixed media/debris/devices; inorganic liquids; organic liquids; inorganic solids
RHO-Chem Corp	CAD008364432	425 Isis Avenue Inglewood, CA 90301	Contact: Hector U Sanchez, 3237766233 Ext. 204	Operator: Philip Services Corporation	Mixed media/debris/devices; inorganic liquids; organic liquids; inorganic solids; organic solids; inorganic sludges; organic sludges
Safety-Kleen Systems Inc	CAT000613976	2120 South Yale Santa Ana, CA 92704	Contact: Nahid Toossi, 7144294355	Operator: Safety-Kleen Systems Inc	Organic liquids
Safety-Kleen Systems Inc	CAT000613927	7979 Palm Ave Unit A Highland, CA 92346	Contact: Nahid Toossi, 7144294355	Operator: Safety-Kleen Systems Inc	Inorganic liquids
Safety-Kleen Systems Inc	CAT000613893	10625 Hickson St Unit A El Monte, CA 91731	Contact: John Matthews, 6264010106	Operator: Safety-Kleen Systems Inc	Mixed media/debris/devices; inorganic liquids; organic liquids; organic sludges
Safety-Kleen Systems Inc	CAT000613935	2918 Worthen Ave Los Angeles, CA 90039	Contact: John Matthews, 6264010106	Operator: Safety-Kleen Systems Inc	Inorganic liquids
Teris Wilmington	CAD044429835	1737 E Denni St Wilmington, CA 90744	Contact: Joe L Christopher, 3108359998 Ext. 499	Operator: Teris LLC	
USFilter Recovery Services	CAD097030993	5375 South Boyle Avenue Vernon, CA 90058	Contact: Ingun Littorin, 3232771518 Ext. 1518	Operator: USFilter Recovery Services	

SOURCE:

TSD & Recycling State Resource Locator. Accessed 16 November 2015. Webiste. Available at: <http://www.envcap.org/statetools/tsdf/>

Release of Hazardous Materials in the Environment

Hazardous Materials

Hazardous materials may be released into the environment in a variety of ways, including permitted or illicit use and accidental or intentional disposal or spillage. Before the 1980s, most land disposal of chemicals was unregulated, resulting in numerous industrial properties and public landfills becoming the recipients of authorized and unauthorized hazardous materials. In general, the largest and most contaminated of these sites became federal Superfund sites in the early 1980s, so named for their eligibility to receive cleanup money from a federal fund established for that purpose under CERCLA. Sites are added to the NPL following a hazard ranking system. The U.S. EPA maintains this list of federal Superfund sites, as well as a more extensive list of all sites with potential to be listed known as CERCLIS. Seven of the 13 superfund sites on the National Priorities List in the SCAG region were in the process of being cleaned up during the period of preparation of this PEIR:

- Del Amo Hazardous Waste Site, Torrance
- Halaco Engineering Company, Oxnard
- Montrose Chemical Corp, Torrance
- Palos Verdes Shelf
- Pemaco, Maywood
- San Fernando Valley, All Areas, County of Los Angeles
- San Gabriel Valley (Area 2): Aerojet, Baldwin Park⁶

Numerous smaller properties also have been designated as contaminated sites. Often, these are gas station sites, where leaking underground storage tanks were upgraded under a federal requirement in the late 1980s. Another category of sites, which may have some overlap with the types already mentioned, are Brownfields sites. Brownfields sites are those areas that were previously used for industrial purposes or certain commercial uses. The land may be contaminated by low concentrations of hazardous waste or pollution, and has the potential to be reused once it is cleaned up. Both the U.S. EPA and DTSC maintain lists of known brownfield sites. These sites are often difficult to inventory due to their owners' reluctance to publicly label their property as potentially contaminated. In California, numerous regulatory barriers have blocked effective reuse of brownfields sites, including uncertainty as to cleanup levels and ultimate cleanup cost.

Radioactive Materials

San Onofre Nuclear Generating Station

Although there are no nuclear power stations within the SCAG region, the retired San Onofre Nuclear Generating Station (SONGS) is located just south of Orange County near San Clemente, in the northwestern corner of San Diego County and is jointly owned by SCE, San Diego Gas & Electric, and the

⁶ U.S. Environmental Protection Agency. Accessed 9 September 2015. *Pacific Southwest, Region 9. Map of Superfund Sites in Southern California*. Available at: <http://www.epa.gov/region9/socal/superfund/sfund-map.html>

City of Riverside.⁷ SONGS went offline in January 2012 and was ordered by the Nuclear Regulatory Commission to stay offline while tubing wear issues were investigated. Subsequently, plant owners announced in June 2013 that remaining Units 2 and 3 would be permanently retired. Since the decision to retire the facility, SCE has initiated the process of providing for final repository of radioactive materials from SONGS. Spent fuel storage from SONGS poses a risk to the SCAG region if cracks develop in the thin steel canisters that will store the waste, and radioactive waste material is released into the environment. In 2015, SCE provided an update to the public regarding the process for retiring SONGS and appropriate storage of associated radioactive materials:

Now that San Onofre is permanently retired, SCE is taking steps to transfer all of the used nuclear fuel into dry cask storage. This proven technology involves sealing used fuel in airtight steel (or in steel and concrete) containers or casks that provide both structural strength and shielding. Dry cask storage systems are designed to withstand various natural phenomena such as floods, projectiles from a tornado, seismic events, temperature extremes and lightning.

In 2014, SCE established a Community Engagement Panel (CEP) to advise the company on decommissioning San Onofre, including issues such as interim storage of used nuclear fuel. The CEP has heard presentations from federal regulators, dry storage suppliers and energy policy experts on issues ranging from dry storage technology to national energy policy. Currently, about one-third of San Onofre's used nuclear fuel is in dry storage and SCE plans to transfer all remaining fuel to dry storage by mid-2019.

The fuel will remain on site until the federal government puts in place a program to dispose of these materials. By law, the U.S. Department of Energy is responsible for developing a disposal facility for the long-term management of used uranium fuel from San Onofre and other U.S. nuclear power plants. However, the federal government does not have a viable program for the management of used nuclear fuel. After two years of study, the President's Blue Ribbon Commission on America's Future issued recommendations to create a safe, long-term solution for managing and disposing of used nuclear fuel.⁸

Hazardous Emissions within One-Quarter Mile of a School Site

There are approximately 5,269 public and private schools in the SCAG region ranging from K–12 through the California State University and University of California university systems (**Table 3.9.2-4, Public and Private Schools in the SCAG Region**). Over half of the K–12 schools and community colleges are located in Los Angeles County, and the least number of the K–12 schools and community colleges are located in Imperial County, with comparable statistics for private schools, with Los Angeles County having 42 percent of the private K–12 schools. The University of California System has three campuses in three counties, and the California State University System has eight campuses in four counties.

⁷ California Energy Commission. Accessed 6 July 2015. *Nuclear Energy in California*. Available at: <http://www.energy.ca.gov/nuclear/california.html>

⁸ Southern California Edison. Accessed 11 September 2015. *Continued Safe Storage of Nuclear Fuel*. Available at: <http://www.songscommunity.com/nuclear-fuel-storage.asp>

**TABLE 3.9.2-4
PUBLIC AND PRIVATE SCHOOLS IN THE SCAG REGION**

County	Public Schools				UC System ⁵	Cal State System ⁶	Private Schools (Active) ⁷	
	K-12 ^{1,2}		Community College ^{3,4}				K-12	College
	Districts	Schools	Districts	Schools				
Imperial	17	67	1	1	—	—	5	—
Los Angeles	89	2,274	11	21	1	5	265	61
Orange	29	605	4	9	1	1	158	25
Riverside	25	500	4	6	1	—	89	5
San Bernardino	34	561	5	6	—	1	81	9
Ventura	22	231	1	3	—	1	34	4
Total	216	4,238	26	46	3	8	632	104

SOURCE:

¹ California Department of Education. Accessed 13 May 2015. *DataQuest*. Available at: <http://dq.cde.ca.gov/dataquest/content.asp>

² California Department of Education. Accessed 13 May 2015. *School Directory*. Available at: <http://www.cde.ca.gov/re/sd/index.asp>

³ Los Angeles Almanac. Accessed 13 May 2015. *Directory of Public Community Colleges, Los Angeles County*. Available at: <http://www.laalmanac.com/education/ed38.htm>

⁴ California Community Colleges Chancellor's Office. Accessed 13 May 2015. *Find a Community College*. Available at: <http://californiacommunitycolleges.cccco.edu/maps/map.asp>

⁵ University of California. Accessed 13 May 2015. Website. Available at: <http://www.universityofcalifornia.edu/campuses/welcome.html>

⁶ California State University. Accessed 13 May 2015. *The 23 Outstanding Campuses of the CSU*. Available at: http://www.calstate.edu/datastore/campus_map.pdf

⁷ Findthebest.com, Inc. Accessed June 30, 2015. *Compare Private Colleges in California*. Available at: <http://colleges.startclass.com/d/b/Private/California>

The California Education Code has a number of minimum standards to minimize the potential for hazardous emissions within one-quarter mile of a school site:

- The property line of the school site, even if it is operated pursuant to a joint use agreement, shall be sited as specified distances from the edge of respective power line easements:
 - 1.100 feet for 50-133 kV line.
 - 2.150 feet for 220-230 kV line.
 - 3.350 feet for 500-550 kV line.
- If the proposed site is within 1,500 feet of a railroad track easement, a safety study shall be done by a competent professional trained in assessing cargo manifests, frequency, speed, and schedule of railroad traffic, grade, curves, type and condition of track need for sound or safety barriers, need for pedestrian and vehicle safeguards at railroad crossings, presence of high pressure gas lines near the tracks that could rupture in the event of a derailment, preparation of an evacuation plan. In addition to the analysis, possible and reasonable mitigation measures must be identified.

- The site shall not be located near an above-ground water or fuel storage tank or within 1,500 feet of the easement of an above ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study, conducted by a competent professional, which may include certification from a local public utility commission.
- Existing or proposed zoning of the surrounding properties shall be compatible with schools in that it would not pose a potential health or safety risk to students or staff in accordance with Education Code Section 17213 and Government Code Section 65402 and available studies of traffic surrounding the site.
- The district is required to consider environmental factor of light, wind, noise, aesthetics, and air pollution in its site selection process.
- If the proposed site is on or within 2,000 feet of a significant disposal of hazardous waste, the school district shall contact the Department of Toxic Substance Control for a determination of whether the property should be considered a Hazardous Waste Property or Border Zone Property.

Properties Included on a List of Hazardous Materials Sites Pursuant to Government Code Section 65962.5

The DTSC maintained a database, known as CalSites, which contained information on properties in California where hazardous substances were released, or where the potential for a release existed. In 2006, DTSC launched its brownfields site database, EnviroStor, which replaced the CalSites database. EnviroStor includes identification of formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites (**Table 3.9.2-5, Number of Cleanup Sites by County**).

**TABLE 3.9.2-5
NUMBER OF CLEANUP SITES BY COUNTY**

County	Federal Superfund (NPL)	School Cleanup	State Response	Voluntary Cleanup	Total
Imperial	1	0	16	9	26
Los Angeles	22	146	160	307	635
Orange	3	13	36	38	90
Riverside	4	16	24	24	68
San Bernardino	5	21	38	25	89
Ventura	2	3	15	21	41

SOURCE:

Department of Toxic Substances Control. Accessed 19 July 2015. *EnviroStor*. Available at: http://www.envirostor.dtsc.ca.gov/public/data_download.asp

Several California environmental agencies maintain lists of properties that are contaminated or are otherwise associated with the use of hazardous materials, including the following:

- DTSC:
 - HazNet list—data on hazardous waste shipments from Hazardous Waste Information System
 - Hazardous Waste and Substances Site List (“Cortese” list)—hazardous materials release locations
- California Integrated Waste Management Board (part of Cal/EPA)
 - Solid Waste Information System—data on open, closed, and inactive solid waste disposal facilities and transfer stations
- State Water Resources Control Board (SWRCB; part of Cal/EPA)
 - Leaking Underground Storage Tank (LUST) list—data for specific parts of the state is also maintained by the RWQCB
- Cal/EPA
 - Annual Work Plan—indicates which sites are targeted for cleanup using state funds

Underground Storage Tanks (USTs)⁹

A UST system is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. The federal UST regulations apply only to underground tanks and piping storing either petroleum or certain hazardous substances. When the UST program began, there were approximately 2.1 million regulated tanks in the United States. Today, there are far fewer regulated tanks, since many substandard UST systems have been closed. Nearly all USTs at these sites contain petroleum. These sites include marketers who sell gasoline to the public (such as service stations and convenience stores) and nonmarketers who use tanks solely for their own needs (such as fleet service operators and local governments). The U.S. EPA estimates about 10,000 tanks hold hazardous substances covered by the UST regulations.

The greatest potential hazard from a leaking underground storage tank (LUST) is that the petroleum or other hazardous substance can seep into the soil and contaminate groundwater, the source of drinking water for nearly half of all Americans (although not such a high percentage in the SCAG region). A LUST can present other health and environmental risks, including the potential for fire and explosion. Until the mid-1980s, most USTs were made of bare steel, which is likely to corrode over time and allow UST contents to leak into the environment. Faulty installation or inadequate operating and maintenance procedures also can cause USTs to release their contents into the environment. There are nearly 15,000 LUSTs in the SCAG region, with over half in Los Angeles County, and the least number, by an order of magnitude, in Imperial County (**Table 3.9.2-6, *Leaking Underground Storage Tank Cleanup Sites***).

⁹ U.S. Environmental Protection Agency. Accessed 19 July 2015. *Overview of Federal Underground Storage Tank Program*. Available at: <http://www.epa.gov/OUST/overview.htm>

**TABLE 3.9.2-6
LEAKING UNDERGROUND STORAGE TANK CLEANUP SITES**

County	Leaking Underground Storage Tank (LUST)
Imperial	225
Los Angeles	7,424
Orange	3,002
Riverside	1,357
San Bernardino	1,074
Ventura	1,406

SOURCE:

California Environmental Protection Agency, State Water Resources Control Board. Accessed 19 July 2015. Website. Available at: http://geotracker.waterboards.ca.gov/sites_by_county.asp

Properties Located within Two Miles of a Public, Public Use, or Private Airport

There are 57 public and private airports in the SCAG region, including 12 major airports (**Figure 3.9.2-1, Airports in the SCAG Region**).¹⁰

Emergency Response Plan / Emergency Evacuation Plan

California updated its State of California Multi-Hazard Mitigation Plan in 2010. The state is required to adopt a federally approved State Multi-Hazard Mitigation Plan (the Plan) to be eligible for certain disaster assistance and mitigation funding. The Plan is an evaluation of the hazards California faces and the strategies, goals, and activities the state will pursue to address these hazards. The Plan:

- Documents statewide hazard mitigation planning in California,
- Describes strategies and priorities for future mitigation activities,
- Facilitates the integration of local and tribal hazard mitigation planning activities into statewide efforts, and
- Meets state and federal statutory and regulatory requirements.

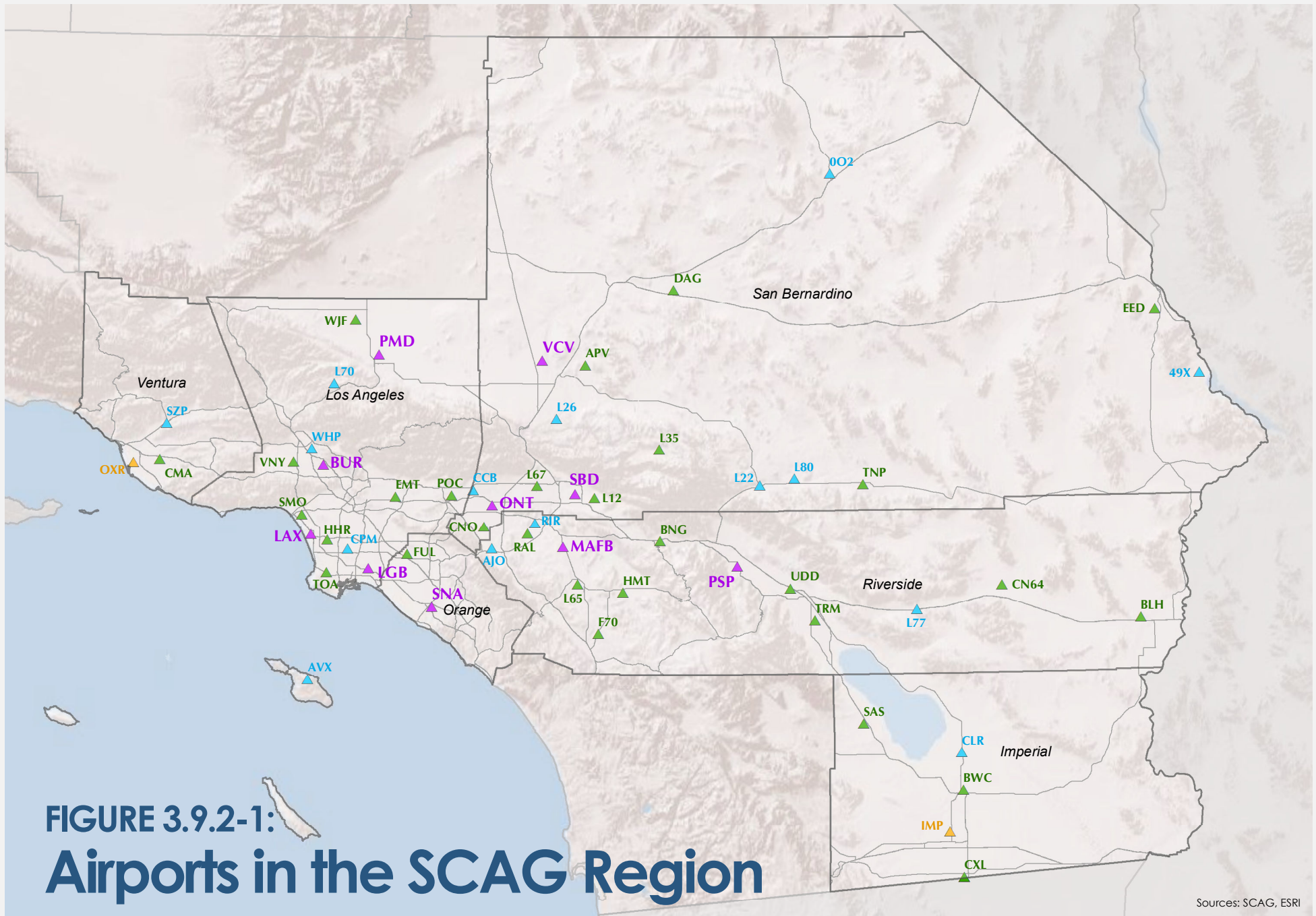
All six SCAG counties and a number of cities within the SCAG region have completed Hazard Mitigation Plans. EMA dictates that these plans must also be updated every three years.¹¹

Wildland Fires

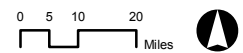
Wildland fires are a threat throughout the SCAG region. The region is at risk from significant fire hazards based on fuels, terrain, weather, and other relevant factors. Approximately 22 percent of the SCAG region consists of areas that are considered extreme, very high, or high fire hazard risk (**Table 3.9.2-7,**

¹⁰ U.S. Federal Aviation Administration. Accessed 19 July 2015. Website. Available at: http://www.faa.gov/airports/airport_safety/airportdata_5010/

¹¹ California Emergency Management Agency. Accessed 19 July 2015. Website. Available at: <http://hazardmitigation.calema.ca.gov/planning>



- ▲ Commercial Aircraft
- ▲ Light Personal Aircraft
- ▲ Commuter Aircraft
- ▲ Small Corporate Aircraft



Fire Risk in the SCAG Region, and Figure 3.9.2-2, Fire Risk in the SCAG Region). The areas within SCAG region susceptible to high, very high, and extremely high fire risk include mountainous areas near north Los Angeles County, a portion of San Bernardino County and Riverside County, and along the forested and wildland areas where the natural habitats interfaced with human activities in the region. In unaltered systems, the fire is also contributed by natural sources of ignition, such as lightning. In all regions with high to extreme fire risks, it is important to note that most fires are ignited by human activity, and the largest fires occur in the summer during years of low rainfall and extended dry periods and in the fall during Santa Ana wind events.

**TABLE 3.9.2-7
FIRE RISK IN THE SCAG REGION**

Threat	Acres	Square Miles	Percentage of SCAG Area
Extreme	1,255,123.9	1,961.1	5%
Very High	2,524,399.9	3,944.4	10%
High	1,806,099.4	2,822.0	7%
Moderate	16,871,631.9	26,361.9	69%
Little or No Hazard	2,156,763.2	3,369.9	9%
Total	24,614,018.2	38,459.4	100%

SOURCE:

California Department of Forestry and Fire Protection. Accessed 19 July 2015. Website. Available at: http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones.php

3.9.3 THRESHOLDS OF SIGNIFICANCE

Based on CEQA Appendix G and as appropriate for the 2016 RTP/SCS, the Plan would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazards or hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous materials within one-quarter mile of a school.
- Disturb contaminated property located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, during the construction of new transportation or expansion of existing transportation facilities would it create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

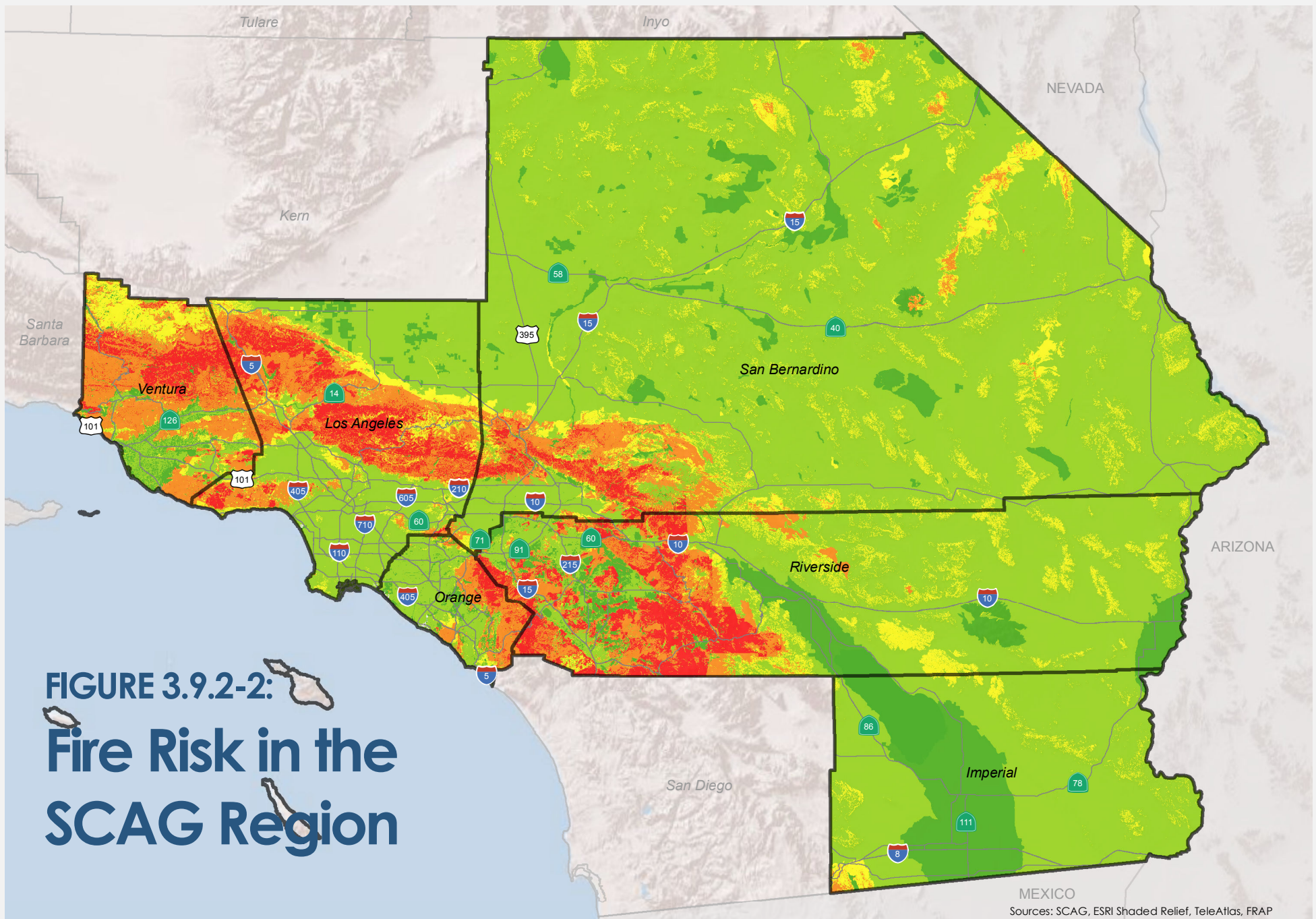
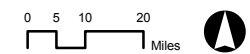


FIGURE 3.9.2-2:
Fire Risk in the
SCAG Region

Sources: SCAG, ESRI Shaded Relief, TeleAtlas, FRAP

FRAP Fire Threat Class

- Little or No Threat
- Moderate
- High
- Very High
- Extreme



- 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.

Methodology

As stated by the OHMS, the frequency and location of hazardous material shipments are an indicator of risk. Therefore, the impact of hazardous materials transportation through the SCAG region can be assessed by examining the 2016 RTP/SCS's effect on shipments of hazardous materials. To assess potential hazards to sensitive receptors adjacent to transportation corridors, geographic information systems (GIS) analysis was used to identify where major highway, rail, and transit projects included in the 2016 RTP/SCS would be within 150 feet of 2040 residential land uses. Major projects considered in the 2016 RTP/SCS since the 2012 RTP/SCS was adopted include additional highway projects, high-occupancy vehicle (HOV) projects, mixed flow projects, rail projects, and toll projects (see **Section 2.0, Project Description**).¹²

The methodology for determining the significance of hazardous material impacts compares the existing conditions (2015) to the future 2040 conditions under the Plan, as required in CEQA Section 15126.2(a). Implementation of the 2016 RTP/SCS would affect the transportation and handling of hazardous materials in the SCAG region by improving and increasing transportation routes in proximity to sensitive receptors such as schools and residential uses. The potential for risk related to the transport of hazardous materials was assessed by evaluating the locations of proposed transportation projects in relation to the surrounding uses, as well as the potential expected significant impacts related to the risk of accidental releases of hazardous materials due to an increase in the transportation of hazardous materials and the potential for such releases to reach schools, and communities adjacent to transportation facilities included in the 2016 RTP/SCS. The following discussion presents a programmatic regional evaluation of potential impacts of transportation projects included in the proposed 2016 RTP/SCS on increased risk of exposure to hazardous materials.

3.9.4 IMPACT ANALYSIS

IMPACT HAZ-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Significant Impact

The 2016 RTP/SCS includes transportation projects and development patterns influenced by land use strategies. These projects and strategies may create a significant hazard to the public or the environment through the transportation, use, and/or disposal of hazardous materials, constituting a significant impact. In particular, the proposed freight rail enhancements and other goods movement capacity enhancements identified in the 2016 RTP/SCS could result in increased or new transport of

¹² Major Transportation Projects include but are not limited to projects that involve ground disturbing activities and projects outside of existing rights-of-way such as projects that require new rights-of-way, adding traffic lanes, and grade separation.

hazardous materials or wastes. In addition, construction and maintenance of these projects would result in use of equipment that contains or uses routine hazardous materials (e.g., diesel-fuel, paint and cleaning solutions), and the transportation of excavated soil and/or groundwater containing contaminants from previously contaminated areas. Port traffic (and associated goods movement in the region) is anticipated to triple over the lifetime of the Plan. Container traffic is anticipated to increase from approximately 14 million Twenty-foot Equivalent Units (TEUs) in 2015 to a projected 43 million TEUs in 2040. The fraction of containers that include hazardous materials is not known, but if it is assumed that it remains constant, transport of hazardous materials would be expected to triple along with other container traffic. In addition to container traffic, hazardous materials are transported via company trucks (for example gas companies transport gasoline, diesel and other flammable substances) and various industrial users transport materials for their businesses (raw materials and waste products), and so on.

In general, it is anticipated that the increase in transport of hazardous materials would result in a less than significant hazard to the public and/or the environment, because handling and transport of hazardous materials and wastes are subject to numerous laws, regulations, and health and safety standards set forth by federal, state, and local authorities that regulate the proper handling of such materials and their containers. These include the EPA, OSHA, U.S. DOT, and the Food and Drug Administration (FDA) for the federal government. State agencies, including the Cal/EPA, have parallel and, in some cases, more stringent rules governing the use of hazardous materials. U.S. DOT requires that hazardous waste inventories (which are used to ensure that hazardous wastes are strictly monitored and tracked from the point of generation through ultimate disposal) be maintained. To operate in California, all hazardous waste transporters must be registered with the DTSC. Unless specifically exempted, hazardous waste transporters must comply with the California Highway Patrol Regulations, the California State Fire Marshal Regulations, and the U.S. DOT regulations.

The construction and maintenance of transportation facilities reflected in the Plan as well as development influenced by land use strategies that occurs during implementation of the Plan, would involve the use of hazardous materials such as fuels, solvents, paints, and other architectural coatings. The use and storage of these materials is regulated by local fire departments, Certified Unified Program Agencies (CUPAs), and the Cal OSHA. Materials remaining after project construction can likely be reused on other projects. For materials that cannot be or are not reused, disposal would be regulated by DTSC under state and federal hazardous waste regulations. Additionally, increased transport and handling of hazardous materials particularly by goods movement facilities could result in increased risk of accidental releases reaching neighborhoods and communities adjacent to the transportation facilities).

To accommodate the region's new growth (approximately 3.8 million people by 2040), the 2016 RTP/SCS directs growth adjacent to transit and transportation facilities in order to reduce trips and trip lengths. However, with increasing growth adjacent to such transportation facilities, there would be greater potential risk for exposure of people and property to hazardous materials from the routine transport, use, storage, and disposal of hazardous materials. Although individual transportation and development projects influenced by land use strategies would be required to comply with all existing applicable regulations, due to the volume of them contained in the 2016 RTP/SCS, it is possible that significant impacts could occur thus requiring the consideration of mitigation measures.

IMPACT HAZ-2: Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Significant Impact

Implementation of transportation projects included in the 2016 RTP/SCS would result in significant impacts by facilitating the movement of goods, including hazardous materials, through the SCAG region. The SCS portion of the Plan would guide regional growth of all types, including industrial uses that use and generate hazardous materials. The 2016 RTP/SCS includes approximately 70,000 lane-miles.¹³ As a result of anticipated growth that is projected to occur within cities and counties under the Plan in the next 25 years, it is anticipated that there would be a substantial increase in vehicle miles traveled (VMT) by trucks, a common mode of hazardous materials transport, as Plan transportation improvements close critical gaps in the highway network. In addition, freight rail enhancements, truck mobility improvements, intermodal facilities, and other goods movement capacity enhancements are included in the Plan. Transportation of goods, in general, and hazardous materials, in particular, can thus be expected to increase substantially with implementation of the transportation projects included in the 2016 RTP/SCS. It is estimated that daily regional heavy duty truck vehicle hours of delay (VHD) within the SCAG region would increase from 118,000 in 2015 to 184,000 in 2040, which is a 35 percent increase.¹⁴ The past several RTP updates, as well as this one, have included the concept of user supported (toll) dedicated truck lane facilities. These facilities would be aligned to connect freight-intensive locations such as the ports, warehousing/distribution center locations and manufacturing locations. They would have fewer ingress/egress locations than typical urban interstates have to smooth the flow of goods in the region. Additional strategies for transportation improvements included in the 2016 RTP/SCS would generally improve transportation safety, thus reducing the likelihood of hazardous material transportation incidents. Specific elements in the Plan, including rail-to-rail grade separations, rail operations safety improvements, truck mobility improvements such as truck-only freight corridors, and grade separations of streets and highways from rail lines, could be expected to reduce the level of risk posed by hazardous materials transport by separating freight transportation from other traffic types and reducing the risk of collisions. Such improvements to the transportation system may provide an incentive for even greater goods shipment through the SCAG region, potentially offsetting this benefit. The imposition of tolls or fees for dedicated truck lane facilities may induce the transfer of some freight, including hazardous materials, to rail rather than truck. Federal statistics show that hazardous materials incidents are much less common by rail than on highways.

Even with these improvements, there remains the potential for significant impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment from transportation projects included in the 2016 RTP/SCS, requiring the consideration of mitigation measures.

¹³ Southern California Association of Governments. December 2015. *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy: Highways & Arterials Appendix*. Los Angeles, CA.

¹⁴ SCAG modeling, 2015.

IMPACT HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Significant Impact

The transportation projects included in the 2016 RTP/SCS would result in significant impact in regards to emitting hazardous emission or handling of hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school. Transportation projects as well as urban development potentially influenced by regional land use strategies anticipated to occur under the Plan would result in the use, transport and/or storage of potentially hazardous materials. The types and quantities of hazardous materials transported, used and stored is heavily regulated. Using SCAG’s GIS data, the 2016 RTP/SCS network of transportation projects was overlaid on the region to determine the potential for effects related to hazardous materials emissions to impact schools. Results of the GIS analysis show that under the Plan, approximately 541 existing kindergarten through 12th-grade schools are within a one-quarter mile buffer of the transportation projects included in the 2016 RTP/SCS and could be affected (see **Table 3.9.4-1, School, Hospitals, and Nursing Homes within One-Quarter Mile of 2016 RTP/SCS Major Transportation Projects**). Hazardous materials carried on roadways within one-quarter mile of schools could affect these schools if there were to be a release or incident during transportation. Compliance with all applicable local, state, and federal laws, and regulations, as described in the regulatory framework section above, regulate, control, or respond to hazardous waste, transport, disposal, or cleanup in order to ensure that hazardous materials do not pose a significant risk to nearby receptors.

**TABLE 3.9.4-1
SCHOOLS, HOSPITALS, AND NURSING HOMES
WITHIN ONE-QUARTER MILE OF 2016 RTP/SCS MAJOR TRANSPORTATION PROJECTS**

Mode	No Project	2016 RTP/SCS
Colleges	15	58
Hospitals	6	45
K-12 Schools	147	541
Nursing Homes	37	186
Senior Centers	6	47
Urgent Care Centers	4	36

SOURCE:

SCAG GIS data and analysis, 2015.

However, due to the number of transportation projects and amount of more densified and compact urban development potentially influenced by the regional land use strategies included in the 2016 RTP/SCS, there would be the potential for significant impacts related to the emission of hazardous materials or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, requiring the consideration of mitigation measures.

IMPACT HAZ-4: Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

Significant Impact

Transportation projects and potential development resulting from land use strategies included in the 2016 RTP/SCS would result in significant impacts in regards to the potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The 2016 RTP/SCS includes transportation system improvements to close critical gaps in the transportation network that currently hinder access to certain parts of the region. Construction related to these transportation improvements and other projects (including development potentially influenced by land use strategies included in the Plan could involve construction on or adjacent to sites that are contaminated (buildings and/or soil and/or groundwater) due to past use or disposal of hazardous materials. Federal, state, and local laws provide for remediation of these sites, and it is likely that the majority of contaminated sites have been identified or are easily identifiable from existing information. Given the intensity of past use of land, there are a substantial number of potentially contaminated sites in the SCAG region. In urban as well as rural areas, many projects, both transportation and development, would likely need to address at least the potential for contamination. Because of the large number of contaminated sites and the risk associated with encountering and cleaning up of these sites, this impact could be significant.

The regional land use strategies included in the 2016 RTP/SCS and those transportation strategies and investments that are intended to increase mobility and improve accessibility would potentially influence population distribution, resulting in a potentially significant impact related to disturbance of contaminated sites by new urban development, most of which would be in existing urban areas. The land use strategies included in the 2016 RTP/SCS aim to direct future population growth toward high-quality transit areas (HQTAs) in close proximity to transit. Consequently, the redevelopment and reuse of urban infill lands as well as urban opportunity areas that are currently underutilized may become more common as the region grows.

Because the 2016 RTP/SCS may cause transportation projects and development to be located on sites which are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, the Plan would have the potential to create a significant hazard to the public or the environment, requiring the consideration of mitigation measures.

IMPACT HAZ-5: Potential for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.

Less than Significant Impact

The 2016 RTP/SCS would result in less than significant impacts in regard to transportation projects being located within an airport land use plan. There are 57 public and private airports in the SCAG region, including 12 major airports (Figure 3.9.2-1). The Plan would not in itself result in a safety hazard; however, increased population that would occur by 2040, from projected growth forecasts included in the Plan, would likely result in increased air traffic in major commercial airports in Southern California. Air travel in the SCAG region continues to grow. The 2016 Plan's regional air passenger demand forecast is 136.2 million annual passengers (MAP) in 2040, and the 2016 Plan's air cargo demand is approximately 3.78 million metric tons in 2040.¹⁵ The MAP forecast is lower than the previously adopted 2012 RTP/SCS's number of 145.9 MAP adopted for 2035, and the air cargo demand is similarly lower than what was adopted in the previously adopted 2012 RTP/SCS (approximately 5.605 million metric tons in 2035).¹⁶ The 2016 RTP/SCS land use policies aim to focus growth in HQTAs and transit priority areas (TPAs) in locations away from airport clear zones and accident potential zones. Encouraging and distributing new growth in HQTAs and TPAs is expected to decrease the number of Southern California residents' proximity to airports and potential for safety risks and hazards associated with air traffic. In addition, implementation of Airport Land Use Compatibility Plans would also help avoid or remedy safety risks associated with air traffic. Therefore, impacts would be less than significant, and the consideration of mitigation measures is not required.

IMPACT HAZ-6: Potential for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

Less than Significant Impact

The 2016 RTP/SCS would result in less than significant impacts in regards to the proximity of private airstrips. The SCAG region includes 14 private airstrips, three of which are within one mile of an HQTA. As described above, the 2012 RTP/SCS had forecasted the regional passenger demand forecast of 145.9 MAP in 2035.¹⁷ According to the August 6, 2015, Staff Report to SCAG Transportation Committee, the 2016 RTP/SCS has a regional passenger demand forecast of 136.2 MAP in 2040, which is a decrease of

¹⁵ Southern California Association of Governments. 5 November 2015. *Item No. 1 Staff Report: Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) – Proposed Major Components*. Available at: <http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf>

¹⁶ Southern California Association of Governments. April 2012. *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS): Aviation Appendix*. Available at: <http://rtpscsc.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx>

¹⁷ Southern California Association of Governments. April 2012. *2012-2035 Regional Transportation Plan / Sustainable Communities Strategy*. Los Angeles, CA.

approximately 7 percent.¹⁸ Transportation projects and potential development resulting from land use strategies included in the 2016 RTP/SCS would not be encouraged to be located in proximity to a private airstrip, as a result of the Plan. Therefore, at the regional level, impacts would be less than significant, and the consideration of mitigation measures is not required.

IMPACT HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Significant Impact

The 2016 RTP/SCS would result in significant impacts in regards to impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan. **Section 3.15, Public Services**, addresses the potential for the Plan to result in substantial physical impacts associated with the provision of new or physically altered fire stations that would be required to maintain acceptable service ratios and response time for fire protective services. Chapter 5 of the 2016 RTP/SCS, titled “a Plan for Mobility, Sustainability, and a High Quality of Life,” provides a discussion on how to best meet the region’s population growth, which is projected to grow by more than 20 percent from approximately 19 million people in 2015 to more than 22 million people in 2040 in all types of communities from urban centers, cities, towns, and suburban neighborhoods, while allowing the region to remain a vital gateway for goods and services so residents can enjoy a high quality of life complemented by easily accessible transportation options; well-maintained infrastructures; and reduced congestion on highways and arterials, express and toll lane network, public transit and active transportation. Depending upon the timing, location, and duration of construction activities from transportation project included in the 2016 RTP/SCS, several of the transportation projects included, including grade crossings, arterials, interchanges, and auxiliary lanes, could delay emergency vehicle response times or otherwise disrupt delivery of emergency response services. By closing off one or more lanes of a roadway during project construction, emergency routes would be impaired. The closure of these lanes could potentially cause traffic delays and ultimately prevent access to calls for service.

The 2016 RTP/SCS land use strategies aim to focus new growth in areas well-served by transit, and HQTAs including livable corridors, that allow residents to be closer to jobs and other recreational and active transportation amenities and opportunities, to increase mobility and accessibility, and to shift growth away from high value habitat areas. Despite the efforts of the proposed Plan, congestion would likely increase in existing and new urban development, like HQTAs, and existing communities in cities and counties in the SCAG region, which could adversely affect emergency access.

Although California driving laws require motorist to yield the right-of-way to emergency vehicles in response mode (lights and/or sirens), such provisions may not be sufficient to offset the delays due to congestion resulting from construction activities or increased VMT driven by the anticipated growth in population between 2016 and 2040. Therefore, the Plan would have the potential to result in a significant impact to hazards in relation to an adopted emergency response plan or emergency evacuation plan, requiring the consideration of mitigation measures.

¹⁸ Southern California Association of Governments. 6 August 2015. *Staff Report to Transportation Committee*. Los Angeles, CA. Available at: <http://www.scag.ca.gov/programs/Pages/ASA.aspx>

IMPACT HAZ-8: Potential 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 wildlands.

Significant Impact

The 2016 RTP/SCS would have the potential to result in significant impacts in regard to exposing 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. Approximately 22 percent of the SCAG region consists of areas that are considered extreme, very high, or high fire hazard risk (**Table 3.9.2-6, Fire Risk in the SCAG Region; Figure 3.9.2-2, Fire Risk in the SCAG Region**). The regional land use strategies included in the proposed Plan encourage compact development and smart growth, and the Plan includes policies to minimize uncontrolled, haphazard development in an area outside of existing developable footprint. However, due to the size of the region and its population, there would remain the potential for significant impacts, requiring the consideration of mitigation measures.

3.8.5 CUMULATIVE IMPACTS

IMPACT HAZ-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Significant Cumulative Impact

The 2016 RTP/SCS includes transportation projects and regional land use strategies that would shape the region over the next 25 years. These changes would include the preservation and strategic extension of transportation systems and encouraging population growth to new urban development like HQTAs, existing suburban town centers and more walkable, mixed-use communities. The SCAG travel demand model estimates vehicle trips (autos and trucks) in 2040, as a result of population, households, and employment projected for 2040. The year 2040 would be the year with the largest demand on the transportation system during the lifetime of the 2016 RTP/SCS. The forecasted urban development and growth that would occur under the Plan and that would be accommodated by the transportation investments in the 2016 RTP/SCS, plus the anticipated increased mobility expected from implementation of the 2016 RTP/SCS, would result in not only increased hazardous materials transport through the region but also outside the region. These trips would add to trips from outside the region to result in cumulative impacts outside the region. As the population increases through 2040, the number of trips in the SCAG region that originate, end, or pass through Santa Barbara, San Diego, and Kern Counties as well as other counties and states would increase, including trips involving the transportation of hazardous materials. The 2016 RTP/SCS would contribute to significant hazardous material transportation impacts in these other areas. Implementation of mitigation measures would reduce cumulative impacts related to hazardous materials transport outside of the SCAG region; however, impacts would remain significant, requiring the consideration of mitigation measures.

IMPACT HAZ-2: Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Significant Cumulative Impact

Implementation of transportation projects included in the 2016 RTP/SCS, when taken in to consideration with other reasonably foreseeable development in the SCAG region and surrounding areas, would result in significant cumulative impacts. The potential for cumulative impacts to create a significant hazard to the public or the environment, through reasonably foreseeable upset and accident conditions involving the release of hazardous materials in to the environment would be exacerbated by increased trips by heavy duty trucks to facilitate the movement of goods, including hazardous materials, through the SCAG region. It is estimated that daily regional heavy duty truck vehicle hours of delay (VHD) within the SCAG region would increase from 118,000 in 2015 to 184,000 in 2040, which is a 35 percent increase. Implementation of transportation projects included in the 2016 RTP/SCS, when taken into consideration with other reasonably foreseeable development in the SCAG region and surrounding areas, would result in significant cumulative impacts, requiring the consideration of mitigation measures.

IMPACT HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Significant Cumulative Impact

The transportation projects included in the 2016 RTP/SCS when taken into consideration with other reasonably foreseeable development in the SCAG region and surrounding areas, would result in significant cumulative impacts in regards to emitting hazardous emission or handling of hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school. Under the Plan, approximately 541 existing kindergarten through 12th-grade schools are within a one-quarter mile buffer of the transportation projects included in the 2016 RTP/SCS. Hazardous materials carried on roadways within one-quarter mile of schools could affect these schools if there were to be a release or incident during transportation involving the emission of acutely hazardous materials, substances, or waste (see **Table 3.9.4-1, School, Hospitals, and Nursing Homes within One-Quarter Mile of 2016 RTP/SCS Major Transportation Projects**). The potential for such incidents would be increased when taken into consideration with anticipated population growth and associated goods movement of areas surrounding the SCAG region, constituting a significant cumulative impact requiring the consideration of mitigation measures.

IMPACT HAZ-4: Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

No Cumulative Impact

Transportation projects and potential development resulting from land use strategies included in the 2016 RTP/SCS would result in significant impacts in regards to the potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, where such incidences occur, the need for remediation would be limited to resolving the horizontal and vertical extent of contamination and would not necessarily be affected by other sites in the SCAG region or surrounding areas included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, there would no contribution to cumulative impacts related to hazardous materials sites, and the consideration of mitigation measures is not required.

IMPACT HAZ-5: Potential for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.

Less than Significant Cumulative Impact

Transportation projects and potential development resulting from land use strategies included in the 2016 RTP/SCS would result in significant impacts in regards to the potential to result in a safety hazard for people residing or working in the project that are located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The increased population that would occur by 2040, from projected growth forecasts included in the Plan, would likely result in increased air traffic in major commercial airports in Southern California. Air travel in the SCAG region continues to grow. The 2016 RTP/SCS land use policies aim to focus growth in HQTAs and TPAs in locations away from airport clear zones and accident potential zones. Encouraging and distributing new growth in HQTAs and TPAs is expected to decrease the number of Southern California residents' proximity to airports and potential for safety risks and hazards associated with air traffic. In addition, implementation of Airport Land Use Compatibility Plans would also help avoid or remedy safety risks associated with air traffic; therefore, impacts would be less than significant. Therefore, contributions to cumulative impacts would be less than significant, and the consideration of mitigation measures is not required.

IMPACT HAZ-6: Potential for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

Less than Significant Cumulative Impact

Transportation projects and potential development resulting from land use strategies included in the 2016 RTP/SCS would result in significant impacts in regards to the potential to result in a safety hazard for people residing or working in the project area that are located within the vicinity of a private airstrip. The increased population that would occur by 2040, from projected growth forecasts included in the Plan, would likely result in increased air traffic in major commercial airports in Southern California. Air travel in the SCAG region continues to grow. The 2016 RTP/SCS land use policies aim to focus growth in HQTAs and transit priority areas (TPAs) in locations away from airport clear zones and accident potential zones. Encouraging and distributing new growth in HQTAs and TPAs is expected to decrease the number of Southern California residents' proximity to airports and potential for safety risks and hazards associated with air traffic. In addition, implementation of Airport Land Use Compatibility Plans would also help avoid or remedy safety risks associated with air traffic. Therefore, impacts would be less than significant, and the consideration of mitigation measures is not required.

IMPACT HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Significant Cumulative Impact

The 2016 RTP/SCS would contribute to cumulative significant impacts in the region when considered with related projects such as the proposed town of Centennial in Los Angeles County and subdivision projects in currently rural areas in regard to emergency response services because many areas already have insufficient fire protection and emergency response service, and implementation of the 2016 RTP/SCS would have the potential to further exacerbate existing needs and expanded needs from related projects. The related transportation projects and growth development patterns would also require the provision of new or physically altered governmental facilities to provide adequate emergency response times in the vicinity of new development, resulting in a significant cumulative impact requiring the consideration of mitigation measures.

IMPACT HAZ-8: Potential 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 wildlands.

Significant Cumulative Impact

Implementation of the transportation projects included in the 2016 RTP/SCS, when taken into consideration with related development and infrastructure projects within the SCAG region and surrounding areas, and anticipated growth and land use development patterns, would contribute to cumulative significant impacts with regard to the potential to expose people and structures to wildland fires. The 2016 RTP/SCS includes a set of regional land use strategies that are intended to guide future

land development patterns to focus new growth in HQTAs, existing suburban town centers, and walkable mixed-use communities. While the specific impact of this pattern of development relative to wildland fires is unknown, it could result in cumulative significant impacts with regard to more people being exposed to the effects of effects of wildand fires. **Appendix B, 2016 RTP/SCS Project List**, shows the related transportation projects for each county and major cities in the SCAG region that would be expected to contribute to the cumulative impacts from the 2016 RTP/SCS. Therefore, the Plan would result in cumulative significant impacts with regard to the potential to expose additional people and structures to the effects of wildland fires, requiring the consideration of mitigation measures.

3.9.5 MITIGATION MEASURES

Mitigation measures as they pertain to each CEQA question related to hazards and hazardous materials are described below. Mitigation measures are categorized into two categories: SCAG mitigation and project-level mitigation measures. SCAG mitigation measures shall be implemented by SCAG over the lifetime of the 2016 RTP/SCS. Project-level mitigation measures can and should be implemented by Lead Agencies for transportation and development projects, as applicable and feasible.

IMPACT HAZ-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

SCAG Mitigation Measures

MM-HAZ-1(a)(1): SCAG shall work with the U.S. DOT, the OES, Caltrans, and the private sector to continue to conduct driver safety training programs and enforce speed limits on roadways. In an effort to reduce risks associated with the transport of hazardous materials in the SCAG region, SCAG shall encourage the U.S. DOT and the California Highway Patrol to continue to enforce speed limits and existing regulations governing goods movement and hazardous materials transportation.

MM-HAZ-1(a)(2): SCAG shall work with the CUPAs and counties and cities within the SCAG region to encourage education and monitoring of the use and storage of hazardous materials consistent with the provisions OSHA CPL 02-02-038.

MM-HAZ-1(a)(3): SCAG shall notify member agencies of the importance of ensuring that construction and operation of transportation projects provide for the safe transport and disposal of hazardous waste, consistent with the provisions of HMR, 49 CFR Parts 171–180.

MM-HAZ-1(a)(4): SCAG shall coordinate with OES to identify any transportation infrastructure elements within the SCAG region where risks to people and property occur at an above-average incident level, potentially warranting consideration for remedial design in future RTPs.

Project-Level Mitigation Measures

MM-HAZ-1(b): Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects related to the routine transport, use or disposal of hazardous materials that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the provisions of the Hazardous Waste Control Act, the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, the Hazardous Waste Source Reduction and Management Review Act of 1989, the California Vehicle Code, and other applicable laws and regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Where the construction or operation of projects involves the transport of hazardous material, provide a written plan of proposed routes of travel demonstrating use of roadways designated for the transport of such materials.
- Where the construction or operation of projects involves the transport of hazardous materials, avoid transport of such materials within one-quarter mile of schools, when school is in session, wherever feasible.
- Where it is not feasible to avoid transport of hazardous materials, within one-quarter mile of schools on local streets, provide notification of the anticipated schedule of transport of such materials.
- Specify the need for interim storage and disposal of hazardous materials to be undertaken consistent with applicable federal, state, and local statutes and regulations in the plans and specifications for transportation improvement project.
- Submit a Hazardous Materials Business/Operations Plan for review and approval by the appropriate local agency. Once approved, keep the plan on file with the Lead Agency (or other appropriate government agency) and update, as applicable. The purpose of the Hazardous Materials Business/Operations Plan is to ensure that employees are adequately trained to handle the materials and provides information to the local fire protection agency should emergency response be required. The Hazardous Materials Business/Operations Plan should include the following:
 - The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.
 - The location of such hazardous materials.
 - An emergency response plan including employee training information.
 - A plan that describes the manner in which these materials are handled, transported and disposed.
- Specify the appropriate procedures for interim storage and disposal of hazardous materials, anticipated to be required in support of operations and maintenance activities, in conformance with applicable federal, state, and local statutes and regulations, in the Operations Manual for projects.
- Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction.
- Avoid overtopping construction equipment fuel gas tanks.

- During routine maintenance of construction equipment, properly contain and remove grease and oils.
- Properly dispose of discarded containers of fuels and other chemicals.

IMPACT HAZ-2: Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

SCAG Mitigation Measures

MM-HAZ-1(a)(1) through MM-HAZ-1(a)(4).

Project-Level Mitigation Measures

MM-HAZ-1(b).

IMPACT HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

SCAG Mitigation Measures

MM-HAZ-1(a)(1) through MM-HAZ-1(a)(4).

Project-Level Mitigation Measures

MM-HAZ-1(b).

IMPACT HAZ-4: Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

SCAG Mitigation Measures

MM-HAZ-1(a)(1) through MM-HAZ-1(a)(4).

Project-Level Mitigation Measures

MM-HAZ-4(b): Consistent with the provisions of Section 15091 of the State CEQA Guidelines; SCAG has identified mitigation measures capable of avoiding or reducing the significant effects related to a project placed on a hazardous materials site, that are in the jurisdiction and responsibility of regulatory agencies, other public agencies and/or Lead Agencies. Where the Lead Agency has identified that a

project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the provisions of the Government Code Section 65962.5, Occupational Safety and Health Code of 197; the Response Conservation, and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Hazardous Materials Release and Clean-up Act, and the Uniform Building Code, and County and City building standards, and all applicable federal, state, and local laws and regulations governing hazardous waste sites, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Complete a Phase I Environmental Site Assessment, including a review and consideration of data from all known databases of contaminated sites, during the process of planning, environmental clearance, and construction for projects.
- Where warranted due to the known presence of contaminated materials, submit to the appropriate agency responsible for hazardous materials/wastes oversight a Phase II Environmental Site Assessment report if warranted by a Phase I report for the project site. The reports should make recommendations for remedial action, if appropriate, and be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.
- Implement the recommendations provided in the Phase II Environmental Site Assessment report, where such a report was determined to be necessary for the construction or operation of the project, for remedial action.
- Submit a copy of all applicable documentation required by local, state, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II Environmental Site Assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.
- Conduct soil sampling and chemical analyses of samples, consistent with the protocols established by the U.S. EPA to determine the extent of potential contamination beneath all underground storage tanks (USTs), elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition or construction activities would potentially affect a particular development or building.
- Consult with the appropriate local, state, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.
- Obtain and submit written evidence of approval for any remedial action if required by a local, state, or federal environmental regulatory agency.
- Cease work if soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums, or other hazardous materials or wastes are encountered), in the vicinity of the suspect material. Secure the area as necessary and take all appropriate measures to protect human health and the environment, including but not limited to: notification of regulatory agencies and identification of the nature and extent of contamination. Stop work in the areas affected until the measures have been implemented consistent with the guidance of the appropriate regulatory oversight authority.

- Use best management practices (BMPs) regarding potential soil and groundwater hazards.
- Soil generated by construction activities should be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Complete sampling and handling and transport procedures for reuse or disposal, in accordance with applicable local, state and federal laws and policies.
- Groundwater pumped from the subsurface should be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Utilize engineering controls, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.
- Prior to issuance of any demolition, grading, or building permit, submit for review and approval by the Lead Agency (or other appropriate government agency) written verification that the appropriate federal, state and/or local oversight authorities, including but not limited to the Regional Water Quality Control Board (RWQCB), have granted all required clearances and confirmed that the all applicable standards, regulations, and conditions have been met for previous contamination at the site.
- Develop, train, and implement appropriate worker awareness and protective measures to assure that worker and public exposure is minimized to an acceptable level and to prevent any further environmental contamination as a result of construction.
- If asbestos-containing materials (ACM) are found to be present in building materials to be removed, submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health and Safety Code Section 25915-25919.7; and other local regulations.
- Where projects include the demolitions or modification of buildings constructed prior to 1968, complete an assessment for the potential presence or lack thereof of ACM, lead-based paint, and any other building materials or stored materials classified as hazardous waste by state or federal law.
- Where the remediation of lead-based paint has been determined to be required, provide specifications to the appropriate agency, signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: California Occupational Safety and Health Administration's (Cal OSHA's) Construction Lead Standard, Title 8 California Code of Regulations (CCR) Section 1532.1 and Department of Health Services (DHS) Regulation 17 CCR Sections 35001–36100, as may be amended. If other materials classified as hazardous waste by state or federal law are present, the project sponsor should submit written confirmation to the appropriate local agency that all state and federal laws and regulations should be followed when profiling, handling, treating, transporting, and/or disposing of such materials.

- Where a project site is determined to contain materials classified as hazardous waste by state or federal law are present, submit written confirmation to appropriate local agency that all state and federal laws and regulations should be followed when profiling, handling, treating, transporting, and/or disposing of such materials.

IMPACT HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

SCAG Mitigation Measures

MM-TRA-5(a).

Project-Level Mitigation Measures

MM-TRA-5(b).

IMPACT HAZ-8: Potential 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 wildlands.

SCAG Mitigation Measures

MM-HAZ-8(a): SCAG shall facilitate minimizing future impacts from wildland fires through cooperation, information sharing, and regional program development as part of SCAG's ongoing regional planning efforts, such as web-based planning tools for local government including CA LOTS, and other GIS tools and data services, including, but not limited to, Map Gallery, GIS library, GIS applications, and direct technical assistance efforts such as Toolbox Tuesday Training series and sharing of associated online Training materials. Resource agencies, such as the U.S. Geology Survey, shall be consulted during this update process.

Project-Level Mitigation Measures

MM-HAZ-8(b): Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from the potential exposure of 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; that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with local general plans, specific plans, and regulations provided by County and City fire departments, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:

- Adhere to 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.

- Adhere to 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.
- Encourage the use of fire-resistant vegetation native to Southern California and/or to the local microclimate (e.g., vegetation that has high moisture content, low growth habits, ignition-resistant foliage, or evergreen growth), eliminate brush and chaparral, and discourage the use of fire-promoting species especially non-native, invasive species (e.g., pampas grass, fennel, mustard, or the giant reed) in the immediate vicinity of development in areas with high fire threat.
- Encourage natural revegetation or seeding with local, native species after a fire and discourage reseeding of non-native, invasive species to promote healthy, natural ecosystem regrowth. Native vegetation is more likely to have deep root systems that prevent slope failure and erosion of burned areas than shallow-rooted non-natives.
- Submit a fire safety plan (including phasing) to the Lead Agency and local fire agency for their review and approval. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase.
- Utilize Fire-wise Land Management by encouraging the use of fire-resistant vegetation and the elimination of brush and chaparral in the immediate vicinity of development in areas with high fire threat.
- Promote Fire Management Planning that would help reduce fire threats in the region as part of the Compass Blueprint process and other ongoing regional planning efforts.
- Encourage the use of fire-resistant materials when constructing projects in areas with high fire threat.

3.9.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

IMPACT HAZ-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Implementation of Mitigation Measures **MM-HAZ-1(a)(1) through MM-HAZ-1(a)(4)** and **MM-HAZ-1(b)** would reduce impacts related to routine transport, use or disposal of hazardous materials; however, the direct, indirect, and cumulative impacts would remain significant and unavoidable.

IMPACT HAZ-2: Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Implementation of Mitigation Measure **MM-HAZ-1(a)(1) through MM-HAZ-1(a) (4)** and **MM-HAZ-1(b)** would reduce impacts related to upset or accident conditions involving the release of hazardous

materials into the environment. However, given the large volume of hazardous materials currently being transported throughout the SCAG region, as well as improvements to the regional transportation system that would facilitate an increase in the transportation of all goods, including hazardous materials, the direct, indirect, and cumulative impacts would remain significant and unavoidable.

IMPACT HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Implementation of Mitigation Measure **MM-HAZ-1(a)(1) through MM-HAZ-1(a)(4)** and **MM-HAZ-1(b)** would reduce impacts related to hazardous materials emissions in the vicinity of a school. However, given the number of schools within a quarter-mile of transportation projects included in the proposed 2016 RTP/SCS the direct, indirect, and cumulative impacts would remain significant and unavoidable.

IMPACT HAZ-4: Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

Implementation of Mitigation Measures **MM-HAZ-1(a)(1) through MM-HAZ-1(a)(4)** and **MM-HAZ-4(b)** would ensure that contaminated properties are identified and appropriate steps are taken to minimize human exposure and prevent any further environmental contamination, thus reducing direct, indirect, and cumulative impacts to below the level of significance.

IMPACT HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Implementation of **MM-TRA-5(a)** and **MM-TRA-5(b)** would reduce impacts to the maximum extent practicable; however, the direct, indirect, and cumulative impacts would remain significant and unavoidable.

IMPACT HAZ-8: Potential 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 wildlands.

Implementation of Mitigation Measures **MM-HAZ-8(a)** and **MM-HAZ-8(b)** would reduce the level of impacts; however the direct, indirect, and cumulative impacts would remain significant and unavoidable.