

4.9 Hazards and Hazardous Materials

This section analyzes impacts related to hazardous materials, airports, emergency planning and wildland fires in the AMBAG region. This section also describes the existing conditions for hazardous materials, airports, emergency planning and wildland fires in the AMBAG region, as well as the regulatory framework.

4.9.1 Setting

a. Physical Setting

Hazardous Materials and Waste

The term “hazardous material” is defined in the State of California’s Health and Safety Code (HSC), Chapter 6.95, Section 25501(o) as:

Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Hazardous waste is hazardous material generated, intentionally or unintentionally, as a byproduct of some process or condition. Hazardous wastes are defined in California HSC Section 25141(b) as wastes that:

...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

According to the U.S. Environmental Protection Agency (U.S. EPA) (2017a), waste may be considered hazardous if it is specifically listed as known hazardous waste or if it meets the one or more of the following characteristics of a hazardous waste:

- **Toxicity.** Poisonous, harmful when ingested or absorbed.
- **Ignitability.** Capable of being ignited by open flame, liquids with flash points⁷ below 60 degrees Celsius.
- **Corrosivity.** Capable of corroding other materials, aqueous wastes with a pH of 2 or less or greater than or equal to 12.5.
- **Reactivity.** May be unstable under normal conditions, may react with water, may give off toxic gases or may be capable of detonation or explosion under normal conditions or when heated.

⁷ Flash point is the lowest temperature at which the vapors of a volatile combustible substance ignite in the air when exposed to flame.

Generation and Disposal of Hazardous Materials and Waste

Many chemicals used in household cleaning, construction, light and heavy industry, dry cleaning, film processing, landscaping and automotive maintenance and repair are considered to generate hazardous materials and waste. Additionally, in some cases, past industrial or commercial uses on a site may have resulted in spills or leaks of hazardous materials and petroleum that have caused contamination of the underlying soil and groundwater. Federal and state laws require that soils and groundwater having concentrations of contaminants that are higher than certain acceptable levels are handled and disposed as hazardous waste during excavation, transportation and disposal. The California Code of Regulations (CCR), Title 22, Sections 66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste. Hazardous materials require special methods of disposal, storage and treatment, and the release of hazardous materials requires an immediate response to protect human health and safety and the environment. Improper disposal can harm the environment and people who work in the waste management industry.

Businesses that handle or generate hazardous materials within the AMBAG region are monitored by U.S. EPA; the Central Coast Regional Water Quality Control Board (RWQCB); the Monterey County Hazardous Materials Management Services (HMMS); the Santa Cruz County Environmental Health Department; the San Benito County Environmental Health Department; Local Enforcement Agency (LEA) programs; and the Monterey Bay Air Resources District (MBARD). Generators of hazardous waste fall into two categories: large-quantity generators (LQG) and small-quantity generators (SQG). An LQG is defined as a person or facility generating more than 2,200 pounds of hazardous waste per month. An SQG is defined as generating greater than 100 kilograms (kg) and less than 1,000 kg (2,200 pounds) of hazardous waste per month. LQGs include industrial and commercial facilities, such as manufacturing companies, petroleum refining facilities and other heavy industrial businesses.

LQGs must comply with federal and state requirements for managing hazardous waste. LQGs need an U.S. EPA identification number that is used to monitor and track hazardous waste activities. SQGs include facilities such as service stations, automotive repair, dry cleaners and medical offices. The regulatory requirements for SQGs are less stringent than the requirements for LQGs; however, SQGs must also obtain an U.S. EPA identification number, which must be used for traceability on all hazardous waste documentation. Pursuant to federal law (40 CFR 262.41-43), all such generators must register with U.S. EPA for record-keeping and reporting.

Transportation of Hazardous Materials and Waste

Hazardous materials, hazardous wastes, medical waste and petroleum products are a subset of the goods routinely shipped along the transportation corridors in the AMBAG region. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by the Department of Toxic Substances Control (DTSC). The DTSC maintains a list of active registered hazardous waste transporters throughout California and the California Department of Public Health regulates the haulers of hazardous waste. There are three registered hazardous waste transporters in Monterey County, two in San Benito County and two in Santa Cruz County (DTSC, 2017a).

Transportation of hazardous materials and wastes in the AMBAG region occurs through a variety of modes: truck, rail and pipeline. Transportation of hazardous materials by truck is regulated by the DOT. The DOT, Federal Motor Carrier Safety Administration, identifies several highways and county

roads in the AMBAG region as a Hazardous Materials Route in its National Hazardous Materials Route Registry (2016). These highways and roads include sections of:

- Highway 1
- Highway 17
- Highway 25
- Highway 68
- Highway 101
- Highway 152
- Highway 156
- Highway 183
- Highway 198 and
- Monterey County Road G14

On a tonnage basis, transport by truck accounted for approximately 94.6 percent of the hazardous materials transported in the nation in 2007 (FHWA, 2013). Considering the abundance of roads compared to rail and pipelines in the AMBAG region, trucks are likely responsible for transporting the majority of hazardous materials within the AMBAG region. According to the DOT (2017), truck transport consistently accounts for the largest share of reportable incidents each year in California. For example, in 2016, truck transport accounted for approximately 90 percent of the reportable incidents in the State, while rail and air transport accounted for the other 10 percent. Reportable incidents in 2017, through and October 23, 2017, have shown a similar trend, with truck transport accounting for approximately 90 percent of the reportable incidents in the state (DOT, 2017). While hazardous waste incidents account for a small percentage of overall highway incidents, the impact of these incidents can be more severe due to the nature of the material(s) involved.

The transport of hazardous materials by rail is also regulated by DOT. Freight railroads have employee safety training requirements and operating procedures that govern the handling and movement of hazardous goods, including crude oil. Federal regulations and self-imposed safety practices dictate train speeds, equipment and infrastructure inspections and procedures for how to handle and secure trains carrying hazardous materials. The freight rail industry provides instruction to local public safety officials at the Transportation Technology Center's Security and Emergency Response Training Center and individual railroads conduct additional local training for first responders (Association of American Railroads, 2015). Freight railroads also work with State emergency planning committees and local first responders to develop emergency response plans. In accordance with a February 2014 agreement between the DOT and Association of American Railroads, railroads have developed an inventory of emergency response resources and provided the DOT with information on the deployment of those resources. This information is available upon request to appropriate emergency responders (Association of American Railroads, 2015). A list of the rail facilities in the AMBAG region is provided in Section 4.14, *Transportation and Circulation*.

Pipelines, primarily underground, are used to transport a variety of potentially hazardous substances throughout the AMBAG region. For example, Pacific Gas & Electric maintains and operates a natural gas pipeline that is roughly parallel to Highway 1 in parts of Monterey and Santa Cruz counties, and a pipeline through Hollister in San Benito County (Pacific Gas & Electric, 2017). The American Petroleum Institute recommends setbacks of 50 feet from petroleum and hazardous liquids lines for new homes, businesses and places of public assembly. It also recommends 25 feet for garden sheds, septic tanks and water wells; and 10 feet for mailboxes and yard lights (American

Petroleum Institute, 2004). The Transportation Research Board (1988) encourages the use of zoning regulations to minimize casualties in the event of a catastrophic pipeline rupture. Possible land use techniques include, for example, establishing setbacks; regulating or prohibiting certain types of structures and uses near transmission pipelines; and encouraging, through site and community planning, other types of activities and facilities, such as mini-storage businesses, linear parks and recreational paths, within or in the vicinity of pipeline rights-of-way.

There are no major shipping ports or marine oil terminals in the AMBAG region, and transport by ship on the open sea or rivers is generally not a mode of hazardous materials or waste transport in the region. However, the AMBAG region does contain coastal marinas, boat storage facilities and other similar boat-based service businesses where petroleum products, paints, cleaning solvents and other substances used in the daily operation and maintenance of boats may be stored and handled.

Potential for Hazardous Materials and Hazardous Materials Sites

Many activities in the AMBAG region involve the use of hazardous materials. The use of hazardous materials is commonplace in commercial, industrial and manufacturing activities, and many businesses within the AMBAG region are permitted to handle and transport hazardous materials. There are historic and existing land uses that have generated hazardous waste as part of daily business operations. LQGs and SQGs include such commercial uses as painters, dry cleaners and photographers, and industrial uses such as automotive service stations, sheet metal works, metal scrap yards, truck yards, cement and lime warehouses, coal yards, battery manufacture and Pacific Gas & Electric substations. In addition, older structures may contain building materials that are considered hazardous, such as asbestos and lead-based paint. In general, these historic and current uses and building materials are located throughout the AMBAG region.

California Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to prepare an annual Hazardous Waste and Substances List, commonly referred to as the Cortese List. The addition or inclusion of a site on the Cortese List has bearing on the local permitting process and compliance with CEQA. For example, projects proposed at a site on the Cortese List are not eligible for categorical exemptions to CEQA per Section 15300.2(e) of the State CEQA Guidelines. The Cortese List is not maintained as a centralized list, however, and a variety of governmental data sources identify sites where hazardous substances may have been released or may have created a hazardous condition on-site. These include:

- DTSC Active Transporter County Search Report (2017a);
- DTSC EnviroStor database (DTSC, 2017b) (Cortese List) for tracking hazardous waste facilities and site with known contamination or sites where there may be reasons to investigate further;
- State Water Resources Control Board's (SWRCB) GeoTracker database (SWRCB, 2017) of records for sites that require cleanup, such as leaking underground storage tank (UST) sites, Department of Defense sites, landfill sites and Cleanup Program sites;
- California Office of Emergency Services (OES) Hazardous Materials Spill Notification database (2017) that includes information on reported hazardous material accidental releases or spills;
- The DOT's Hazardous Materials Incident Report System database (DOT, 2017), which is maintained by the U.S. EPA and contains data on hazardous material spill incidents;
- California Department of Resources Recycling and Recovery's (CalRecycle) Solid Waste Inventory System database (CalRecycle, 2017) of active and closed solid waste sites;

- The U.S. EPA Envirofacts database (2017b) of Resource Conservation and Recovery Act (RCRA) sites, as well as other hazardous sites, such as superfund and brownfield sites; and
- The USACE list of Formerly Used Defense Sites for California (2015).

All of the databases listed above have identified sites within the AMBAG region. As described above, the DTSC Active Transporter County Search Report identifies three registered hazardous waste transporters in Monterey County, two in San Benito County and two in Santa Cruz County. The DOT's Hazardous Materials Incident Report System database identified five hazardous materials spill incidents in the AMBAG region between January 1, 2017 and October 23, 2017. Three of these incidents were in Salinas, one was in Watsonville, and the other was in the City of Santa Cruz. The spills in Watsonville were minor and cleaned on location without the need for emergency response. The spill in Watsonville was less than one gallon of a flammable substance and was cleaned on location with the need for emergency response. The spill in Santa Cruz was approximately one pound of corrosive substance and was remediated on-location without the need for emergency response. Seven sites in the AMBAG region are identified on the USACE list of Formerly Used Defense Sites for California. According to CalRecycle's Solid Waste Inventory System database, there are 48 active landfill sites in the AMBAG region and an additional 39 landfill sites that have been closed.

For some databases, such as the DTSC's EnviroStor database and the U.S. EPA Envirofacts database, the list of identified sites is too exhaustive to provide in its entirety for purposes of this EIR because it is not necessary for programmatic impact analysis. For example, the EnviroStor identifies 267 sites in the AMBAG region, including closed sites that have been fully remediated; sites where contamination is contained but land use restrictions are in place; and sites under evaluation, active remediation and monitoring. Among these sites are superfund sites, state response hazardous sites, contaminated soil sites, and school cleanup sites and leaking UST sites. The U.S. EPA Envirofacts database also identifies hundreds of RCRA sites in the region, including some that are also listed in the EnviroStor database. Examples of some of the RCRA sites identified in the region include gas stations, dry cleaners, automotive repair shops, pharmacies, automobile dealerships, paint stores, trucking companies, University of California Santa Cruz and the Monterey Bay Aquarium. The SWRCB GeoTracker database also identifies many leaking UST sites, some have been which remediated and cleaned, and some of which have yet to be cleaned. For purposes of this EIR, it is more important to note that many sites on the Cortese list exist throughout the AMBAG region, typically within proximity to the transportation network and more densely populated areas in the region.

To address the potential for documented and undocumented hazards on a site, the American Society for Testing and Materials has developed widely accepted practice standards for the preliminary evaluation of site hazards (E-1527-05). Phase I Environmental Site Assessments (ESAs) include an on-site visit to determine current conditions; an evaluation of possible risks posed by neighboring properties; interviews with persons knowledgeable about the site's history; an examination of local planning files to check prior land uses and permits granted; file searches with appropriate agencies having oversight authority relative to water quality and/or soil contamination; examination of historic aerial photography of the site and adjacent properties; a review of current topographic maps to determine drainage patterns; and an examination of chain-of-title for environmental lines and/or activity and land use limitations. If a Phase I ESA indicates the presence, or potential presence of contamination, a site-specific Phase II ESA is generally conducted to test soil and/or groundwater. Based on the outcome of a Phase II ESA, remediation of contaminated sites under federal and state regulations may be required prior to development. Phase I ESAs can also be

used to identify the potential for presence of hazardous building materials in situations where older structures intended for demolition could contain lead-based paint, asbestos containing materials, mercury, or polychlorinated biphenyls.

Schools

Children are particularly susceptible to long-term effects from emissions of hazardous materials. Therefore, locations where children spend extended periods of time, such as schools, are particularly sensitive to hazardous air emissions and accidental release associated with the handling of extremely hazardous materials, substances, or wastes. According to the California Department of Education (DOE) (2017b), there are 264 public schools in the AMBAG region. There are an additional 59 private schools in the region (DOE, 2017a). Student enrollment in the region is currently almost 130,000 students (Ed-Data, 2017)

Airports

The AMBAG region has six publicly-owned civil aviation airports, which include the following:

- Monterey Regional
- Salinas Municipal
- King City Municipal (Mesa Del Rey)
- Marina Municipal
- Watsonville Municipal
- Hollister Municipal

Of these airports, only the Monterey Regional Airport provides scheduled air carrier service. There are also several private airports in the region that are used primarily for agricultural or business purposes, but one of these, the Frazier Lake Airport, also allows public use. Currently, there are two operational military airfields in the region: Camp Roberts Army Airfield and Heliport and the Hunter-Liggett Army Airfield.

Cities and communities in the AMBAG region must consider housing and economic development along with airport interests in making decisions concerning the amount and type of new development to allow in and near airport flight corridors. Potential hazards in relationship to airport operations are generally regulated by the Federal Aviation Administration (FAA), with local planning and evaluation of proposed projects (in terms of a proposed project's compatibility in relationship to air and ground operations and the safety of the public) under the authority of the applicable airport land use commission (ALUC) through an airport land use compatibility plan (ALUCP). The ALUCs with authority in the AMBAG region include the Monterey County Airport Land Use Commission, San Benito County Airport Land Use Commission and the Santa Cruz County Community Development Department. Applicable ALUCPs to the AMBAG region are discussed in the Regulatory Setting, below.

Wildland Fires

In California, responsibility for wildfire prevention and suppression is shared by federal, state and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas. The State of California has determined that some non-federal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by the California Department of Forestry and Fire Protection (CAL

FIRE). All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA).

While all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather and other relevant factors (Public Resources Code 4201-4204 and California Government Code 51175-89). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition and atmospheric conditions. CAL FIRE has identified two types of wildland fire risk areas: 1) Wildland Areas That May Contain Substantial Forest Fire Risks and Hazards and 2) Very High Fire Hazard Severity Zones. Each risk area carries with it code requirements to reduce the potential risk of wildland fires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

Throughout the AMBAG region, there is a full range of conditions and fire hazards as indicated in the applicable Fire Hazard Severity Zone Maps for the region. According to the Monterey County Fire Hazard Severity Zones in SRA (CAL FIRE, 2007a), nearly the entire county within CAL FIRE responsibility is mapped as either high or very high fire hazard. Mapping for San Benito County (CAL FIRE, 2007b) indicates that the majority of the western part of the county within CAL FIRE responsibility is very high fire hazard, while other parts of the county within CAL FIRE responsibility is mostly high fire hazard with dispersed areas of moderate fire hazard. The majority of Santa Cruz County is within CAL FIRE responsibility and is mapped as either moderate fire hazard or high fire hazard (CAL FIRE, 2007c).

Development that has spread into less densely populated, often hilly areas has increased the number of people living in heavily-vegetated areas that are prone to wildfire. This area where wildlands meet urban development is referred to as the wildland-urban interface and is subject to urban wildfire. An example of a wildland-urban interface in the AMBAG region is the Big Sur community in Monterey County (U.S. Forest Service, 2016). The 2016 Soberanes Fire along the Big Sur coast burned 57 homes (Alexander, 2016) and is an example of the major losses of property that can result from a fire within the wildlife-urban interface.

b. Regulatory Setting

Federal

The U.S. EPA is the lead agency responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations include the RCRA of 1976 and the Hazardous and Solid Waste Amendments enacted in 1984; the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); and the Superfund Act and Reauthorization Act of 1986 (SARA). Federal statutes pertaining to hazardous materials and wastes are contained in the CFR Title 40 - Protection of the Environment.

Resource Conservation and Recovery Act

RCRA Subtitle C regulates the generation, transportation, treatment, storage and disposal of hazardous waste by LQGs (1,000 kilograms per month or more) through comprehensive life cycle or "cradle to grave" tracking requirements. The requirements include maintaining inspection logs of hazardous waste storage locations, records of quantities being generated and stored, and manifests of pick-ups and deliveries to licensed treatment/storage/disposal facilities. RCRA also identifies standards for treatment, storage and disposal, which is codified in 40 CFR 260.

Comprehensive Environmental Response Compensation and Liability Act

Congress enacted CERCLA, setting up what has become known as the Superfund program, in 1980 to establish prohibitions and requirements concerning closed and abandoned hazardous waste sites; provide for liability of persons responsible for releases of hazardous waste at these sites; and establish a trust fund to provide for cleanup when no responsible party can be identified. Generally, CERCLA authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response.
- Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening.

Superfund Amendments and Reauthorization Act

SARA amended the CERCLA in 1986, emphasizing the importance of permanent remedies and innovative treatment technologies to clean up hazardous waste sites; requiring Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; providing new enforcement authorities and settlement tools; increasing involvement of the states in every phase of the Superfund program; increasing the focus on human health problems posed by hazardous waste sites; encouraging greater citizen participation in making decisions on how sites should be cleaned up; and increasing the size of the trust fund to \$8.5 billion.

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act (49 CFR § 101 et seq.), which is administered by the Research and Special Programs Administration of U.S. DOT. The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes. The DOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers. The DOT regulations govern every aspect of the movement, including packaging, handling, labeling, marking, placarding, operational standards and highway routing.

Federal Disaster Mitigation Act

The Disaster Mitigation Act of 2000 provided a new set of mitigation plan requirements that encourage state and local jurisdictions to coordinate disaster mitigation planning and implementation. States are encouraged to complete a “Standard” or an “Enhanced” Natural Mitigation Plan. “Enhanced” plans demonstrate increased coordination of mitigation activities at the state level and, if completed and approved, increase the amount of funding through the Hazard Mitigation Grant Program.

Code of Federal Regulations, Title 14, Part 77

The primary role of the FAA is to promote aviation safety and control the use of airspace. Public use airports that are subject to the FAA’s grant assurances must comply with specific FAA design criteria, standards and regulations. Land use safety compatibility guidance from the FAA is limited to the

immediate vicinity of the runway, the runway protection zones at each end of the runway, and the protection of navigable airspace.

14 CFR 77, *Safe Efficient Use and Preservation of the Navigable Airspace*, establishes the federal review process for determining whether proposed development activities in the vicinity of an airport have the potential to result in a hazard to air navigation. 14 CFR Part 77 identifies standards for determining whether a proposed project would represent an obstruction “that may affect safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities.” Objects that are identified as obstructions based on these standards are presumed to be hazards until an aeronautical study conducted by the FAA determines otherwise.

State

California Fire Code

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

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program addresses facilities that contain specified hazardous materials, known as “regulated substances,” that, if involved in an accidental release, could result in adverse off-site consequences. The CalARP Program defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

California Unified Program Administration

The Unified Program consolidates, coordinates and makes consistent the administrative requirements, permits, inspections and enforcement activities of six environmental and emergency response programs, as listed below:

- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- CalARP Program;
- Underground Storage Tank Program;
- Aboveground Petroleum Storage Act Program;
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.

The state agency partners involved in the Unified Program have the responsibility of setting program element standards, working with CalEPA on ensuring program consistency and providing

technical assistance to the Certified Unified Program Agencies (CUPA). The following state agencies are involved with the Unified Program:

- CalEPA is directly responsible for coordinating the administration of the Unified Program. The Secretary of the CalEPA certifies CUPAs.
- DTSC provides technical assistance and evaluation for the hazardous waste generator program including onsite treatment (tiered permitting).
- OES is responsible for providing technical assistance and evaluation of the Hazardous Material Release Response Plan (Business Plan) Program and the CalARP Programs.
- The Office of the State Fire Marshal is responsible for ensuring the implementation of the Hazardous Material Management Plans and the Hazardous Material Inventory Statement Programs. These programs tie in closely with the Business Plan Program.
- SWRCB provides technical assistance and evaluation for the UST program in addition to handling the oversight and enforcement for the aboveground storage tank program.

The AMBAG region includes three CUPAs: the Monterey County HMMS, the San Benito County Environmental Health Department and the Santa Cruz County Environmental Health Department. These three agencies are responsible for implementing the federal and state laws and regulations for all jurisdictions within Monterey, San Benito and Santa Cruz counties, respectively.

California Land Environmental Restoration and Reuse Act of 2001

The California Land Environmental Restoration and Reuse Act of 2001 established California Human Health Screening Levels (CHHSLs) as a tool to assist in the evaluation of contaminated sites for potential adverse threats to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment, an agency under the umbrella of CalEPA. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in 1 million and a hazard quotient of 1.0 for non-cancer health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by EPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/ industrial CHHSLs) at the site.

California Public Resources Code 21151.4

Pursuant to Public Resources Code Section 21151.4, projects that can be reasonably anticipated to produce hazardous air emissions or handle extremely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school must consult with the potentially affected school district and provide written notification not less than 30 days prior to the proposed certification or adoption of an environmental document. Where a school district proposes property acquisition or the construction of a school, the environmental document must address existing environmental hazards, and written findings must be prepared regarding existing pollutant sources.

California Education Code

Sections 17071.13, 17072.13, 17210, 17210.1, 17213.1-3 and 17268 of the California Education Code became effective January 1, 2000. Together, they establish requirements for assessments and

approvals regarding toxic and hazardous materials that school districts must follow before receiving final site approval from the DOE and funds under the School Facilities Program. These requirements are consistent with those described above for certification or adoption of an environmental document under Public Resources Code Section 21151.4.

Carpenter-Presley-Tanner Hazardous Substances Account Act

The Carpenter-Presley-Tanner Hazardous Substance Account Act imposes liability for hazardous substances removal or remedial actions and requires the State Attorney General to recover from the liable person, as defined, certain costs incurred by the DTSC or any of the state's nine RWCQB, upon the request of the DTSC or RWQCB. The act authorizes, except as specified, a party found liable for any costs or expenditures recoverable under the act for those actions to establish, as specified, that only a portion of those costs or expenditures are attributable to the party, and requires the party to pay only for that portion. If each party does not establish its liability, the act requires a court to apportion those costs or expenditures, as specified, among the defendants and the remaining portion of the judgment is required to be paid from the Toxic Substances Control Account. Existing law authorizes the money deposited in the Toxic Substances Control Account in the General Fund to be appropriated to the DTSC for specified purposes, including the payment of the costs incurred by the state for those actions.

Lempert-Keene-Seastrand Oil Spill Prevention and Response Act

The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 granted the Office of Spill Prevention and Response the authority to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in marine waters of California. The Office of Spill Prevention and Response implements the California Oil Spill Contingency Plan, consistent with the National Contingency Plan, which pays special attention to marine oil spills and impacts to environmentally- and ecologically-sensitive areas. In 2014, the Office of Spill Prevention and Response program was expanded to cover all statewide surface waters at risk of oil spills from any source, including pipelines and the increasing shipments of oil transported by railroads.

Local Community Rail Security Act

The Local Community Rail Security Act of 2006 (Public Utilities Code Sections 7665-7667) requires all rail operators to provide security risk assessments to California Public Utilities Commission, the Director of Homeland Security and the Catastrophic Event Memorandum Account that describe the following:

- Location and function of each rail facility;
- Types of cargo stored at or typically moved through the facility;
- Hazardous cargo stored at or moved through the facility;
- Frequency of hazardous movements or storage;
- Description of sabotage-terrorism countermeasures;
- Employee training programs;
- Emergency response procedures; and
- Emergency response communication protocols.

Regional and Local

City and County General Plans

Local planning policies related to hazards and hazardous materials are established in each jurisdiction's general plan, generally in the Safety Element or equivalent chapter. Safety Elements are required to address geologic hazards, fire hazards, dam failure, evacuation routes, flooding and emergency response among other issues. For emergency services, some of the relevant policies may include coordinating with other agencies that are responsible for planning medical facilities to meet the health care needs of residents in the region, retaining hospitals, evaluating medical facility proposals, providing emergency response services and participating in mutual-aid agreements.

As of January 1, 2014, Senate Bill 1241 (SB 1241) requires that, upon the next revision of the housing element, jurisdictions review and update the Safety Element as necessary to address the risk of fire in SRAs and very-high fire hazard severity zones. These revisions must take into account specified considerations, including the provisions outlined in "Fire Hazard Planning" by the Governor's Office of Planning and Research.

Local Hazard Mitigation Plans

Local jurisdictions develop, adopt and update hazard mitigation plans to establish guiding principles for reducing hazard risk, as well as specific mitigation actions to eliminate or reduce identified vulnerabilities. Applicable hazard mitigation plans for the AMBAG region include *Monterey County Multi-Jurisdictional Hazard Mitigation Plan* (Monterey County, 2014), *County of Santa Cruz Local Hazard Mitigation Plan* (Santa Cruz County, 2007) and *County of San Benito Operational Area Multi-Jurisdiction Local Hazard Mitigation Plan* (2015a). These plans serve to reduce or eliminate long-term risk to people and property from natural hazards and their effects in the AMBAG region.

Emergency Response and Evacuation Plans

Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid and public information. Emergency response plans are maintained at the federal, state and local levels for all types of disasters, human-made and natural. Local governments have the primary responsibility for preparedness and response activities.

The Monterey County OES alerts and notifies appropriate agencies when disaster strikes, coordinates all responding agencies, ensures resources are available and mobilized, develops plans and procedures for response and recovery, and develops and provides preparedness materials for the public.

The County of San Benito adopted its emergency operations plan in October 2015 (San Benito County, 2015b). The emergency operations plan addresses the County's response to extraordinary emergency situations associated with natural disasters or human-caused emergencies. The emergency operations plan describes the methods for carrying out emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, how resources are mobilized, how the public will be informed, and the process to ensure continuity of government during an emergency or disaster.

The County of Santa Cruz currently has a draft version of an emergency management plan (Santa Cruz County, 2015). The plan establishes a comprehensive, all-hazards approach to incident management across a spectrum of activities including prevention, preparedness, response and

recovery. It addresses the planned response to extraordinary situations associated with large-scale emergency incidents in or affecting Santa Cruz County.

Airport Land Use Compatibility Plans

The four public airports within Monterey County are: Monterey Regional Airport, Marina Municipal Airport, Mesa Del Rey Airport and Salinas Municipal Airport. The Monterey County ALUC is in the process of updating the ALUCPs for Monterey Regional Airport and Marina Municipal Airport. The ALUC published the Draft ALUCPs for these two airports in January 2017 (Monterey County Airport Land Use Commission, 2017a; 2017b). The ALUC published the plan for Salinas Municipal Airport in 1982 (Monterey County Airport Land Use Commission, 1982) and the plan for Mesa Del Rey Airport in 1978 (Monterey County Airport Land Use Commission, 1978). The goals of the ALUCPs are to protect residents from the negative environmental noise, safety and traffic impacts that can potentially be induced by airports.

The San Benito County ALUC reviews development proposed within the Airport Influence Area of the Hollister Municipal Airport and Frazier Lake Airpark. The ALUC reviews applications in compliance with the policies in the Hollister Municipal Airport Land Use Compatibility Plan and the Comprehensive Land Use Plan - Frazier Lake Airpark (San Benito County, 2001; 2012).

As described above, the Santa Cruz County Community Development Department is the ALUC with authority in Santa Cruz County. According to the Caltrans (2014), *1994 General Plan and Local Coastal Program for the County of Santa Cruz* (Santa Cruz County, 1994) and *Watsonville 2005 General Plan* (City of Watsonville, 1994) serve as the ALUCP for the Watsonville Municipal Airport, which is the only public airport in the County of Santa Cruz. Additionally, in July 2017, the City of Watsonville published *Watsonville Municipal Airport Regulations* to augment the existing ordinances of the City of Watsonville Municipal Code that regulate land use activities within and near the Watsonville Municipal Airport.

4.9.2 Impact Analysis

a. Methodology and Significance Thresholds

Appendix G of the State CEQA Guideline identifies the following criteria for determining whether a project's impacts would have a significant impact to hazards and hazardous materials:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. 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;
3. Emit hazardous emissions or handles hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials compiled by the Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;

6. For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;
7. Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
8. 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.

The methodology used for the following evaluation is based on a review of documents and publicly available information about hazardous and potentially hazardous conditions in the AMBAG region to determine the potential for implementation of the 2040 MTP/SCS to result in an increased health or safety hazard to people or the environment. This includes city and county planning documents, and hazardous materials database information maintained by various state and federal agencies, such as DTSC and SWRCB. Due to the large area of the AMBAG region and the programmatic nature of impact analyses, known sites of current or former contamination were not evaluated in detail, and physical surveys were not conducted. Rather, this program-level analysis is based on hazards typically associated with certain land uses and an overall understanding of the key safety concerns that could result from implementation of the 2040 MTP/SCS.

The evaluation of hazards and hazardous materials impacts reasonably assumes that the construction and development under the 2040 MTP/SCS would adhere to the latest federal, state and local regulations, and conform to the latest required standards in the industry, as appropriate for individual projects.

b. Project Impacts and Mitigation Measures

This section describes generalized impacts associated with the 2040 MTP/SCS. Due to the programmatic nature of the 2040 MTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation and land use projects is not possible. In general, however, implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the 2040 MTP/SCS would result in hazards and hazardous materials impacts as described in the following sections.

Threshold 1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

Threshold 2: 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

Impact HAZ-4 PROPOSED TRANSPORTATION IMPROVEMENT PROJECTS AND LAND USE PROJECTS INCLUDED IN THE 2040 MTP/SCS WOULD FACILITATE THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIAL, AND MAY RESULT IN REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS. MANDATORY COMPLIANCE WITH EXISTING REGULATIONS AND PROGRAMS WOULD MINIMIZE THE RISK ASSOCIATED WITH THESE ACTIVITIES OR ACCIDENT CONDITIONS. THUS, HAZARDS TO THE PUBLIC OR ENVIRONMENT WOULD BE LESS THAN SIGNIFICANT.

Land use and transportation projects associated with implementation of the 2040 MTP/SCS would temporarily increase the regional transport, use, storage and disposal of hazardous materials and petroleum products commonly used at construction sites, such as diesel fuel, lubricants, paints and

solvents and asphalt and cement products containing strong basic or acidic chemicals. Hazardous waste generated during construction may consist of welding materials, fuel and lubricant containers, paint and solvent containers and discarded asphalt and cement products.

As described above, the DOT has identified several highways and a county road within the AMBAG region as hazardous material routes (DOT, 2016). Additionally, trucks transporting hazardous material would also have to use local collector and arterial streets to access individual project sites in the AMBAG region. Transportation projects would also require the temporary storage and use of hazardous materials at locations along project roads. Thus, trucks transporting hazardous materials for project construction would use many of the same freeways, arterials and local streets as other traffic. This would create a risk of accidents and associated release of hazardous materials for other drivers and for people along these routes, as well as truck drivers. Although the transportation of hazardous materials could result in accidental spills, leaks, toxic releases, fire, or explosion, the DOT prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the CFR and the Hazardous Materials Transportation Act. These standard accident and hazardous materials recovery training and procedures are enforced by the state and followed by private state-licensed, certified and bonded transportation companies and contractors.

Construction associated with implementation of the 2040 MTP/SCS could result in impacts related to use of hazardous materials and disturbance of potentially hazardous materials, including asbestos. However, the most likely incidents involving construction-related hazardous materials are generally associated with minor spills or drips. Small fuel or oil spills are possible, but would have a negligible impact on public health. All hazardous materials would be stored, handled and disposed of according to the manufacturers' recommendations and spills would be cleaned up in accordance with applicable regulations. Hazardous materials spills or releases, including petroleum products such as gasoline, diesel and hydraulic fluid, regardless of quantity spilled, must be immediately reported if the spill has entered or threatens to enter a water of the State, including a stream, lake, wetland, or storm drain, or has caused injury to a person or threatens injury to public health. Immediate notification must be made to the local emergency response agency, or 911, and the OES Warning Center. For non-petroleum products, additional reporting may be required if the release exceeds federal reportable quantity thresholds over a release period of 24 hours as detailed in HSC Section 25359.4 and in 40 CFR 302.4.

The construction of land use and transportation projects included in the 2040 MTP/SCS that require demolition of existing structures, particularly older structures, would have the potential to expose workers and the public to asbestos containing materials or dust containing asbestos. HSC Section 19827.5 requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. Mandatory compliance with asbestos abatement and disposal regulations and requirements would minimize the risk of exposure.

Land use projects included in the 2040 MTP/SCS would increase population, jobs and households and a variety of land uses including residential, commercial and industrial. Specific uses such as dry cleaners, gas stations and certain industrial uses, would involve routine transport, use and disposal of hazardous materials such as household hazardous wastes (e.g., paints, cleaning supplies, solvents and petroleum products) and commercial and industrial hazardous waste. The operation of businesses facilitated by land use projects included in the 2040 MTP/SCS that use, create, or dispose of hazardous materials would be regulated and monitored by federal, state and local regulations that provide a high level of protection to the public and the environment from the hazardous materials manufactured within, transported to, and disposed within the AMBAG region. Use of

hazardous materials at these businesses would also require permits and monitoring to avoid hazardous waste release through the local CUPA. During operation, businesses that store hazardous materials could potentially experience accidents or upset conditions that result from their routine use. These businesses would be required to prepare spill prevention, containment and countermeasures plans (pursuant to 40 CFR 112) or, for smaller quantities, a spill prevention and response plan. These plans identify best management practices for spill and release prevention and provide procedures and responsibilities for rapidly, effectively and safely cleaning up and disposing of any spills or releases. Oversight is provided by the CUPA. Pursuant to the requirements and liabilities of applicable regulations, the routine use or accidental spill of hazardous materials at business and industrial uses facilitated by the land use projects included in the 2040 MTP/SCS would not pose a substantial hazard to the public or the environment. Disposal of hazardous waste generated by these businesses would be subject to compliance with DTSC and CalEPA regulations.

Transportation projects included in the 2040 MTP/SCS include a variety of transportation modifications such as new travel lanes, auxiliary lanes, roadway widening, increased transit service and expansion, and other maintenance and rehabilitation projects. The projects may increase the capacity of roadways to transport hazardous materials. Roadway projects in the 2040 MTP/SCS would also improve road safety, as well as pedestrian and bicycle safety, thereby potentially reducing transportation-related hazardous materials risks because fewer accidents would occur on safer roads. Based on the requirements of Title 49 CFR 171–180, construction and operation of transportation projects would provide for the safe transport and disposal of hazardous waste.

The 2040 MTP/SCS encourages infill development and increased population and employment density near public transit stops, including rail. There could also be increased urbanization along transportation corridors. Thus, the number of people potentially exposed to hazardous conditions could increase as a result of land use projects included in the 2040 MTP/SCS. To be declared a sustainable communities project under Public Resources Code Section 21155.1, projects in transit priority areas must demonstrate that there would not be an “unusually high” risk of fire or explosion from materials stored or used on or near the property and the project would not result in a risk of exposure to a potentially hazardous material at levels that exceed state and federal standards. This would occur on a project-specific basis, and does not affect the other streamlining strategies and statutes under the Sustainable Communities Act.

As described above in the Regulatory Setting discussion, the DOT regulates the transport of hazardous materials by all modes, including rail and highway under the regulations of the Hazardous Materials Transportation Act. The Local Community Rail Security Act of 2006 requires all rail operators to provide security risk assessments to California Public Utilities Commission, which includes emergency response procedures and communication protocols. Mandatory implementation of additional federal, state and local requirements such as CalARP Program and the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act would minimize potential exposure to the public and the environment from accidental releases. Therefore, although population density would increase in proximity to major transportation corridors that are used to transport hazardous and flammable materials, the increased risk of hazard from routine transport or accidental upsets during transport would be minimal.

In conclusion, both planned land use projects and transportation projects could increase the routine transport, use, storage and disposal of hazardous wastes in the AMBAG region. The planned land use projects and transportation projects could also increase the potential for unintentional upset and accident conditions. Because of the existing federal, state and local regulations and oversight in place that would effectively reduce the inherent hazard associated with routine transport, use,

storage and disposal activities, and regulations that effectively reduce the potential for individual projects to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions, impacts would be less than significant.

Mitigation Measures

Mitigation measures are not required.

Threshold 3: Emit hazardous emissions or handles hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school

Impact HAZ-5 PROPOSED TRANSPORTATION IMPROVEMENT PROJECTS AND LAND USE PROJECTS INCLUDED IN THE 2040 MTP/SCS WOULD FACILITATE HAZARDOUS EMISSIONS OR HANDLING OF ACUTELY HAZARDOUS MATERIALS, SUBSTANCES OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING OR PROPOSED SCHOOL. EXISTING REGULATIONS AND PROGRAMS WOULD REDUCE THE RISK TO SCHOOLS TO ACCEPTABLE LEVELS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Land use projects included in the 2040 would increase population, jobs and households and a variety of land uses including residential, commercial and industrial. Specific uses such as dry cleaners, gas stations and certain industrial uses, would involve routine handling of hazardous materials such as household hazardous substances (e.g., paints, cleaning supplies, solvents and petroleum products) and commercial and industrial hazardous waste. Thus, the 2040 MTP/SCS could increase the amount of hazardous materials handled within 0.25 mile of schools, depending on the specific location of land uses relative to schools in the region. Certain industrial uses, such as chemical plants, may also generate hazardous emissions as byproducts, typically in the form of air emissions.

Any new commercial or industrial operations in proximity to existing schools would be required to comply with regulations related to the routine use, storage and transport of hazardous materials. Land uses that would generate emissions or involve the handling of extremely hazardous materials, substances, or waste within 0.25 mile of an existing school must notify the affected school district pursuant to Public Resources Code Section 21151.4. As discussed in detail above, compliance with existing regulations would reduce the exposure to potential hazards associated with these land uses.

For new schools that may be developed to address the population distribution changes resulting from land use projects included in the 2040 MTP/SCS, the California Education Code, including Education Code Section 17213(b), establishes requirements for assessments and approvals that address the potential for existing contamination on the site, and whether nearby land uses might reasonably be anticipated to emit hazardous air emissions or handle hazardous materials. Assessment of existing contamination is conducted in coordination with DTSC's School Property Evaluation and Cleanup Division, which is responsible for assessing, investigating and cleaning up proposed school sites. This Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy a new school. Therefore, hazardous emissions and handling impacts on schools related to land use projects included in the 2040 MTP/SCS would be less than significant.

The transportation projects included in the 2040 MTP/SCS could increase the capacity to transport hazardous materials on roads within the AMBAG region, including within 0.25 mile of schools. However, all materials must be used, stored and disposed of in accordance with applicable federal,

state and local laws, which would effectively reduce the potential impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or potential future school. Transportation projects in the 2040 MTP/SCS may also improve road safety, thereby reducing the potential for accidents in proximity of schools related to hazardous materials. Therefore, the hazardous materials impacts related to existing and proposed schools from implementation of the transportation projects included in the 2040 MTP/SCS would be less than significant.

Mitigation Measures

Mitigation measures are not required.

Threshold 4: Be located on a site which is included on a list of hazardous materials compiled by the Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment

Impact HAZ-6 THE 2040 MTP/SCS INCLUDES LAND USE PROJECTS AND TRANSPORTATION PROJECTS THAT COULD OCCUR ON PREVIOUSLY UNKNOWN HAZARDOUS MATERIAL SITES OR SITES ON THE LIST COMPILED BY GOVERNMENT CODE SECTION 65962.5. THUS, CONSTRUCTION OF THESE PROJECTS COULD CREATE A HAZARD TO THE PUBLIC OR ENVIRONMENT. IMPACTS WOULD BE SIGNIFICANT BUT MITIGABLE.

Throughout the AMBAG region there are many sites where historical releases of hazardous materials or wastes have occurred; these are listed in environmental databases pursuant to Government Code Section 65962.5. As described above, there are hundreds of documented sites of contamination in some stage of DTSC or SWRCB oversight in the region. These sites range from small releases that have had localized effects on private property and have already been remediated to large scale releases from long-term historical industrial practices that have had wider ranging effects on groundwater. Specific sites of documented contamination are not evaluated in this analysis because this is a programmatic level document. Further, because the precise timing of future land use developments is unknown, an evaluation of the potential for specific sites of known contamination within the AMBAG region to be affected by land use projects included in the 2040 MTP/SCS cannot be conducted. However, land use can be used to generally characterize the potential for release of hazardous materials (i.e., hazardous materials releases are more likely to have occurred in areas that currently or historically supported industrial uses). In addition, construction activities that disturb subsurface materials could encounter previously unidentified contamination from past practices or placement of undocumented fill or even unauthorized disposal of hazardous wastes. Encountering these hazardous materials could expose workers, the public or the environment to adverse effects depending on the volume, materials involved and concentrations.

A common practice that is typically required by lending institutions when properties change hands is for a Phase I ESA to be prepared to research and disclose the prior uses of the site and the likelihood that residual hazardous materials and/or waste might be present in underlying soil and/or groundwater. Also, in many instances implementing and/or permitting agencies require submittal of a Phase I ESA prior to approval or implementation of a project. These studies include research in a variety of government databases to determine whether the site has had prior underground tanks or other industrial uses that could result in hazardous materials on or below the ground surface. However, with the exceptions for streamlining projects in transit priority areas and siting public schools, there are no general regulatory requirements to conduct a Phase I ESA, or subsequent

investigation of potential contamination. Therefore, because it cannot be assumed these practices would regularly occur, the impacts related to land use projects included in the 2040 MTP/SCS would be significant because there could be significant hazard to the public or the environment.

Similarly, there would be potential for transportation projects to encounter previously unidentified contamination from past practices on sites that have not been listed in environmental databases pursuant to Government Code Section 65962.5. Thus, the impacts of transportation projects included in the 2040 MTP/SCS would be significant because there could be significant hazard to the public or the environment.

Mitigation Measures

For transportation projects under their jurisdiction, TAMC, SBtCOG and SCCRTC shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the 2040 MTP/SCS program where applicable for transportation projects that result in hazardous materials impacts. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2040 MTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

HAZ-3 Site Remediation

If an individual project included in the 2040 MTP/SCS is located on or near a hazardous materials and/or waste site pursuant to Government Code Section 65962.5, or has the potential for residual hazardous materials and/or waste as a result of location and/or prior uses, the implementing agency shall prepare a Phase I ESA in accordance with the American Society for Testing and Materials' E-1527-05 standard. For work requiring any demolition or renovation, the Phase I ESA shall make recommendations for any hazardous building materials survey work that shall be done. All recommendations included in a Phase I ESA prepared for a site shall be implemented. If a Phase I ESA indicates the presence or likely presence of contamination, the implementing agency shall require a Phase II ESA, and recommendations of the Phase II ESA shall be fully implemented. Examples of typical recommendations provided in Phase I/II ESAs include removal of contaminated soil in accordance with a soil management plan approved by the local environmental health department; covering stockpiles of contaminated soil to prevent fugitive dust emissions; capturing groundwater encountered during construction in a holding tank for additional testing and characterization and disposal based on its characterization; and development of a health and safety plan for construction workers.

Implementing Agencies

Implementing agencies for transportation projects include RTPAs and transportation project sponsor agencies. Implementing agencies for land use projects include cities and counties.

Significance After Mitigation

With implementation of this mitigation, impacts would be reduced to less than significant because project sites with hazardous material contamination that are previously unknown and not included on the list compiled by the Government Code Section 65962.5 would be identified prior to commencement of project construction. Additionally, prior to commencement of construction, measures to remediate contamination, such as containment and disposal of contaminated soil pursuant to federal and state regulations would be required. These measures would prevent

significant hazards to the public or the environment. Thus, impacts would be reduced to a less than significant level.

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

Threshold 6: For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area

Impact HAZ-7 TRANSPORTATION IMPROVEMENT PROJECTS AND LAND USE DEVELOPMENT INCLUDED IN THE PROPOSED 2040 MTP/SCS MAY BE LOCATED NEAR A PUBLIC USE AIRPORT OR PRIVATE AIRSTRIP. EXISTING REGULATIONS AND REGULATORY OVERSIGHT WOULD REDUCE THE INHERENT HAZARD OF DEVELOPMENT NEAR AIRPORTS TO SAFE LEVELS, AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Land use projects and transportation projects included in the 2040 may be located near a public use airport or a private airstrip. Impacts associated with development near existing airports are largely dependent upon site- and project-specific information that is not currently available and would be provided in the future as projects within the 2040 MTP/SCS undergo project level environmental review. However, any development and subsequent planning decisions in proximity to airports would be subject to review under the State Aeronautics Act provided under Public Utilities Code §§ 21167 et seq. Specific projects that may affect navigable airspace are also subject to FAA review, as outlined under 14 CFR Parts 77.5, 77.7 and 77.9. Additionally, land use development would be subject to existing zoning regulations, including height restrictions. Because there are existing federal, state and local regulations and oversight in place that would effectively reduce the inherent hazard associated with development near airports to an acceptable and safe level, the impacts of the 2040 MTP/SCS would be less than significant.

Mitigation Measures

Mitigation measures are not required.

Threshold 7: Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan

Impact HAZ-8 LAND USE DEVELOPMENT AND TRANSPORTATION PROJECTS INCLUDED IN THE 2040 MTP/SCS COULD INTERFERE WITH EXISTING EMERGENCY AND EVACUATION. HOWEVER, REQUIRED REGULAR UPDATES TO EMERGENCY RESPONSE AND EVACUATION PLANS WOULD ACCOUNT FOR DEVELOPMENT AND PROJECTS. IMPACTS RELATED TO INTERFERENCE OR IMPAIRMENT OF AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN WOULD BE LESS THAN SIGNIFICANT.

Construction of the land use development and transportation projects included in the 2040 MTP/SCS would require temporary road closures that could impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Some of the transportation projects may require multiple years to construct. However, standard construction practices include notification of emergency responders where road closures are required. Because road closures are temporary and would be coordinated with emergency responders so that alternative evaluation routes could be developed and employed, construction activities would have a less than significant impact.

The land use projects included the 2040 MTP/SCS emphasize infill and transit-oriented development, which would generally focus growth in existing urbanized areas of the AMBAG region. Thus, population density in urbanized areas would increase, which may improve emergency response by eliminating the need to travel to more rural and dispersed locations in the region. Alternatively, large concentrations of people could also cause adverse effects related to the implementation emergency plans because the increased population may overburden adopted evacuation routes and other emergency response resources. However, the management of emergency response and emergency evacuation plans includes regular updates to these plans that incorporate new or proposed developments. Thus, land use projects in the 2040 MTP/SCS would be reflected in the regular updates of emergency and evacuation plans applicable to the AMBAG region. In addition, project-level CEQA reviews routinely assure that individual projects do not adversely impact emergency response or evacuation plans.

Additionally, the proposed transportation projects would generally increase mobility and circulation capacity and, thereby, have the potential to improve response times for police, fire and emergency service providers, especially in heavily-congested areas. Overall, congestion for the region is projected to increase between the baseline 2015 conditions and 2040, as discussed in Section 4.14, *Transportation and Circulation*. However, as described above, emergency and evacuation plans are regularly updated to incorporate current conditions. Therefore, potential impacts related to interference with emergency response and evacuation plans would be less than significant.

Mitigation Measures

Mitigation measures are not required.

Threshold 8: 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

Impact HAZ-9 THE 2040 MTP/SCS INCLUDES LAND DEVELOPMENT AND TRANSPORTATION PROJECTS WITHIN AREAS OF MODERATE, HIGH AND VERY HIGH FIRE HAZARD. INFILL DEVELOPMENT EMPHASIZED IN THE 2040 MTP/SCS AND EXISTING REGULATIONS AND PROGRAMS WOULD REDUCE THE VULNERABILITY OF PEOPLE AND STRUCTURES TO WILDLAND FIRE. HOWEVER, THE RISK OF LOSS, INJURY OR DEATH FROM WILDLAND FIRE WOULD BE POSSIBLE GIVEN THE FIRE HAZARD ACROSS MUCH OF THE AMBAG REGION. IMPACTS WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As described above, CAL FIRE has mapped nearly the entire AMBAG region as having moderate, high, or very high fire hazard. The 2040 MTP/SCS focuses on infill development, which would concentrate people and structures in existing urbanized areas where the risk of wildland fire is less than in more rural areas where fuels are more abundant. However, not all projects and development included in the 2040 MTP/SCS would be infill projects in urbanized areas, and some projects would inevitably be located in areas at risk of wildland fires. Examples of projects that would be located in moderate to high fire hazard areas include suburban commercial/mixed use projects on the south side of the City of San Juan Bautista in San Benito County and suburban residential projects on the southeast side of the City of Scotts Valley, in Santa Cruz County.

New construction would be subject to the California Fire Code, which includes safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves and vents to prevent intrusion by flame or embers.

Title 14 of the CCR sets forth the minimum development standards for emergency access, fuel modification, setback, signage and water supply, which help prevent loss of structures or people by reducing wildfire hazards. The codes and regulations would reduce the risk of loss, injury or death from wildland fire, but not entirely. Thus, because some land use development projects would be located in areas of high or very high fire hazards, and existing codes and regulations cannot fully prevent wildland fires from damaging structures or populations, impacts related to land use included in the 2040 MTP/SCS would be potentially significant.

Similarly, some of the transportation projects included in the 2040 MTP/SCS, such as the Freedom Boulevard Pavement Preservation Project (CO-74SC), would be within highways and transportation corridors that CAL FIRE has mapped as moderate, high, or very high fire hazard. Transportation projects would not expose additional people to risk of wildland fire, but would expose transportation infrastructure to risk of loss or damage to wildland fire. Thus, the impacts of transportation projects included in the 2040 MTP/SCS would be significant.

Mitigation Measures

For transportation projects under their jurisdiction, TAMC, SBtCOG and SCCRTC shall implement, and transportation project sponsor agencies can and should implement, the following mitigation measures developed for the 2040 MTP/SCS program where applicable for transportation projects that result in impacts related to wildland fire. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2040 MTP/SCS. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.

HAZ-6 Wildland Fire Risk Reduction

If an individual project included in the 2040 MTP/SCS is located within the wildland-urban interface or areas favorable for wildland fires such that project-specific CEQA analysis finds a significant risk of loss, injury or death from fire, the implementing agency shall require appropriate mitigation to reduce the risk. Examples of mitigation to reduce risk of loss, injury or death from wildlife include, but are not limited to:

- Require adherence to the local hazards mitigation plan, as well as the local general plan policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, public outreach and service standards for fire departments.
- Encourage the use of fire-resistant vegetation native to the AMBAG region and/or the local microclimate of the project site, and discourage the use of fire-prone species especially non-native, invasive species such as pampas grass or giant reed.
- Require a fire safety plan be submitted to and approved by the local fire protection agency. 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 of the project.
- Prohibit certain project construction activities with potential to ignite wildland fires during red-flag warnings issued by the National Weather Service for the project site location. Example activities that should be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings.

- Require fire extinguishers to be onsite during construction of projects. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.

Implementing Agencies

Implementing agencies for transportation projects include RTPAs and transportation project sponsor agencies. Implementing agencies for land use projects include cities and counties.

Significance After Mitigation

With implementation of this mitigation, the risk of loss of structures and transportation infrastructure and the risk of injury or death due to wildland fire would be reduced. These measures would make structures more fire resistant and less vulnerable to loss in the event of a wildland fire. These measures would also reduce the potential for construction of the 2040 MTP/SCS projects to inadvertently ignite a wildland fire. However, it is not possible to entirely prevent wildland fires or fully protect people and structures from the risks of wildland fires, despite implementation of mitigation. Thus, this impact would remain significant and unavoidable. .No additional mitigation measures to reduce this impact to less-than-significant levels are feasible.

c. Specific 2040 MTP/SCS Projects That May Result in Impacts

The analysis within this section discusses the potential hazards and hazardous materials related impacts associated with the transportation improvement projects included in the 2040 MTP/SCS. The projects within the 2040 MTP/SCS are evaluated herein in their entirety and all would be subject to existing federal, state and local regulations and programs that regulate and manage hazards and hazardous materials. As described above, the 2040 MTP/SCS includes transportation projects that could increase the transport, use, storage and disposal of hazardous materials and waste within the AMBAG region. A comprehensive list of specific projects that could increase the transport, use, storage and disposal of hazardous materials and waste within the AMBAG region cannot be provided in this section because the because the specific location of land use development projects is undetermined. However, the transportation projects listed in Table 35 would involve increasing the capacity on roads that the U.S. DOT has identified as hazardous material routes. Increasing the capacity of these roads could increase the amount of hazardous material and waste transported on the roads. In addition to the projects listed in the table, construction of any number of the transportation projects would presumably require the use of petroleum products, at a minimum.

Table 35 2040 MTP/SCS Projects that May Result in Increased Transport of Hazardous Materials

AMBAG Project No.	Projects	Location	Impact	Description of Impact
MON-CT011-CT	SR 68 - Commuter Improvements	Monterey County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
MON-CT017-CT	SR 68 - (Holman Hwy - access to Community Hospital)	Monterey County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport

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AMBAG Project No.	Projects	Location	Impact	Description of Impact
MON-CT022-CT	SR 156 - Corridor Widening Project	Monterey County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
MON-CT030-SL	U.S. 101 - Salinas Corridor	Monterey County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
MON-GRN008-GR	U.S. 101 - Walnut Avenue Interchange	Monterey County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SB-COG-A54	State Route 25 Corridor Improvements Project	San Benito County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SB-CT-A01	SR 156 Widening - San Juan Bautista to Union Road	San Benito County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SB-CT-A17	Airline Highway Widening/SR 25 Widening: Sunset Drive to Fairview Road	San Benito County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SB-CT-A44	Highway 25 4-Lane Widening, Phase 1	San Benito County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SC-RTC-24e-RTC	3 - Hwy 1: Auxiliary Lanes from Park Avenue to Bay Avenue/Porter Street	Santa Cruz County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SC-RTC 24f-RTC	2 - Hwy 1: Auxiliary Lanes from 41st Avenue to Soquel Avenue and Chanticleer Bike/Ped Bridge	Santa Cruz County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SC-RTC-24g-RTC	4 - Hwy 1: Auxiliary Lanes from State Park Drive to Park Avenue	Santa Cruz County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SC-RTC 24r-RTC	94 - Hwy 1: Northbound Auxiliary Lane from San Andreas Road/Larkin Valley Road to Freedom Boulevard	Santa Cruz County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport
SC-SC-38-SCR	Hwy 1/San Lorenzo Bridge Replacement	Santa Cruz County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport

AMBAG Project No.	Projects	Location	Impact	Description of Impact
SC-SC-P81-SCR	Hwy 1/Mission Street at Chestnut/King/Union Intersection Modification	Santa Cruz County	HAZ-1	Potential impacts from increased capacity on hazardous material routes facilitating additional hazardous material transport

As described above, the land use development and transportation projects could also be located on hazardous material sites, including sites on the list compiled by Government Code Section 65962.5 (i.e., Cortese list). Land use development would also locate structures and people in areas susceptible to wildland fire hazards. However, there are no specific projects that can be listed in this section because the specific timing of land use development projects is undetermined.

As described above, some of the land use development and transportation projects would be located within areas that CAL FIRE has mapped as moderate, high, or very high fire hazard. Additionally, catastrophic fires could occur anywhere in the AMBAG region. Thus, any number of the projects included in the 2040 MTP/SCS could be susceptible to risk of wildland fire impacts.

d. Cumulative Impacts

Impacts associated with hazards and hazardous materials related to implementation of the 2040 MTP/SCS are analyzed above. Hazards and hazardous materials impacts may be related to: 1) the transport, use, storage or disposal of hazardous materials; 2) reasonably foreseeable upset or accidental conditions involving the release of hazardous materials; 3) emission of hazardous materials within 0.25 mile of a school; 4) location on an unknown or known hazardous materials site; 5) airport related hazards; 6) conflicts with emergency response plans; and 7) wildland fires.

The potential impacts related to items 1, 2, 3, and 4, listed above, are generally related to site-specific and project-specific characteristics and conditions, and would not be significantly affected by other development outside of the AMBAG region. Although the transport of hazardous materials may occur on rail or on roadways, such as U.S. Highway 101, that traverse both the AMBAG region and adjacent counties, there are existing federal, state and local regulations and oversight in place that would effectively reduce the inherent hazard associated with routine transport of such materials. Regulations and oversight, as outlined in the impacts analysis above, would also effectively reduce the potential for individual projects to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions, within the AMBAG region as well as adjoining counties. Thus, the cumulative impacts related to items 1 through 4, listed above, would be less than significant.

Impacts related to airport hazards are also site specific depending on the characteristics and design of individual projects and their location relative to distance and location of nearby airports. Existing regulations place limitations on the types of development that can be permitted within various aircraft zones surrounding an airport, such as building height restrictions or prohibiting residential occupancy. Mandatory compliance with these regulations would prevent substantial hazards related to airports. Cumulative impacts would be less than significant.

Emergency response plans are generally specific to a particular city or county or parts thereof. For example, in the event of an imminent emergency in Monterey County, emergency response is typically from police, ambulance and fire departments local to the county, and not from areas outside of the AMBAG region, such as Santa Clara County. Thus, the cumulative impacts related to conflict with emergency response plans would be less than significant.

Transportation projects and the land use pattern included in the 2040 MTP/SCS would locate structures and population within areas mapped as moderate, high or very high fire hazards. There are numerous structures located, and people currently residing, within areas of the AMBAG region and surrounding counties that have also been mapped as a fire hazard zone. The risk of loss from existing development and the anticipated growth within the AMBAG region and surrounding counties, combined with similar risk from growth in surrounding counties, would result in cumulative impacts related to wildland fire hazards. Although Mitigation Measure HAZ-6 would make structures implemented in accordance with the 2040 MTP/SCS more fire resistant and reduce the potential for wildland fire ignition, the risk of wildland fires would not be eliminated entirely. Thus, the impacts of the 2040 MTP/SCS with regard to wildfire fire hazards would be cumulatively considerable.