3.9 HAZARDS AND HAZARDOUS MATERIALS

This section analyzes the potential impacts of projected development under the General Plan Update associated with exposure to hazards and hazardous materials. Impacts relating to hazardous materials use or development on contaminated sites, transportation of hazardous materials, exposure to wildland fire hazards and airport safety hazards are addressed. Geological and hydrological hazards are described in Sections 3.7, “Geology,” and 3.10, “Hydrology and Water Quality,” of this Recirculated Draft Environmental Impact Report (EIR), respectively.

Several commenters on the 2015 Draft EIR expressed concerns related to wildfire. Comments also indicated that development near Jones Mill could create potentially hazardous conditions.

3.9.1 Environmental Setting

HAZARDOUS MATERIALS

Use, Storage, and Handling of Hazardous Materials

Numerous federal, state, and local regulations regarding use, storage, transportation, handling, processing and disposal of hazardous materials and waste have been adopted since the passage of the federal Resource Conservation and Recovery Act (RCRA) of 1976. The goal of RCRA is to ensure adequate tracking of hazardous materials from generation to proper disposal. California Fire Code (CFC) Chapter 50, which augments RCRA, provides the primary regulatory guidelines used to govern the storage and use of hazardous materials. The CFC also serves as the principal enforcement document from which corresponding violations are written.

Hazardous substances include both hazardous wastes and hazardous materials. In general, a material or waste is classified as hazardous if it is one of more than 700 chemicals specifically listed in the California Code of Regulations (CCR); if it contains one of these chemicals; or if it is reactive, ignitable, corrosive, or toxic. Because of their potential threat to public health and the environment, hazardous substances are closely regulated by federal, state, and local laws that focus on controlling their production, handling, storage, transportation, and disposal.

Federal and state environmental laws provide that all property owners be required to pay for cleanup, when necessary, of contamination by hazardous materials on or originating from their land. Because of the potential liability, purchasers or developers of commercial, industrial, or agricultural property should perform environmental assessments before development or purchase. In addition to being liable for cleanup, the owner can be responsible for toxic effects on human health, and measures should be taken to avoid exposing people to hazardous materials.

Household Products

By far the most common hazardous materials are those found or used in the home. Waste oil is a common hazardous material that is often improperly disposed of and can contaminate surface water through runoff. Other household hazardous wastes (used paint, pesticides, cleaning products and other chemicals) are common and often improperly stored in garages and homes. On February 11, 1992, Tuolumne County adopted the Household Hazardous Waste Element of the Tuolumne County Integrated Waste Management Plan to reduce the amount of household hazardous waste generated within Tuolumne County through reuse and recycling, to divert household hazardous waste from landfills, to promote alternatives to toxic household products, and to educate the public regarding household hazardous waste management. As part of compliance with this plan, the County operates recyclable household hazardous waste collection at the Cal Sierra Transfer Station in East Sonora and the Groveland Transfer Station in Groveland and collection events.
for non-recyclable household hazardous waste, organized by the Solid Waste Division of the Community Resources Agency, to remove household hazardous wastes from the waste stream. The Solid Waste Division also operates a household hazardous waste collection facility at the former Jamestown Mine. This facility is open by appointment, 1 day per month.

**Commercial and Industrial Uses**

Users of hazardous materials include commercial manufacturing, petroleum exploration, industrial fabrication, biotechnology, and agribusinesses. Potentially hazardous materials used by businesses may include petroleum-based fuels, chlorinated solvents, acrylic coatings, corrosive or caustic additives, and to a lesser extent, chemical fertilizers, pesticides and herbicides. The majority of current users of hazardous materials include gas stations and other automotive service-related business, utilities, agribusinesses, and other commercial and industrial uses.

Businesses handling more than specified reportable quantities of any hazardous material are required to disclose certain information to the County Environmental Health Division via a hazardous materials business plan required pursuant to the Health and Safety Code. Risk Management Plans (RMPs) are required to be developed by certain businesses that handle more than a threshold quantity of certain regulated “acutely hazardous” substances (primarily toxic gases and pesticides) under the California Accidental Release Prevention (Cal ARP) program. The purpose of the Cal ARP program is to prevent the accidental releases of regulated substances.

**Hazardous Materials Transportation**

Major access routes to Tuolumne County include State Routes (SRs) 49, 108, and 120. Tuolumne County is served by the Sierra Railroad, which operates between Standard in Tuolumne County and Oakdale in Stanislaus County, where it connects to the Southern Pacific and Santa Fe Railroads. The Sierra Railroad has 49 miles of track that has been in operation since 1897. The Sierra Railroad is vital to the local economy, providing local industry with access to distant markets. Additionally, the railroad provides historical excursions and scenic opportunities. Despite the importance of the Sierra Railroad, the condition of the track has been in decline since 1980 when freight usage decreased significantly. Modern capacity freight cars are not able to access lumber mills and passenger train excursions have been curtailed, limiting access to Sonora, due to safety reasons.

Both the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Transportation (DOT) regulate the overall transportation of hazardous waste and material, including transport via highway and rail. EPA administers permitting, tracking, reporting, and operations requirements established by the RCRA. DOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act. This Act administers container design and labeling and driver training requirements. These established regulations are intended to track and manage the safe interstate transportation of hazardous materials and waste.

Transportation of hazardous materials on highways falls under federal legislation; however, authority is delegated to various state and local agencies that are focused on specific aspects of hazardous materials and transportation. The Hazardous Waste Control Act establishes the California Department of Health Services (DHS) as the lead agency in charge of the implementation of the RCRA program. State and local agencies such as the California Highway Patrol (CHP), California Department of Transportation (Caltrans), and the City and County Fire Departments are responsible for the enforcement of state and federal regulations and responding to hazardous materials transporting emergencies. The CHP establishes state and federal hazardous material truck routes and has lead responsibility over hazardous material spills on state highways.

**Soil Contamination**

Regulatory agencies such as EPA, the California Department of Toxic Substance Control (DTSC), and the California Department of Environmental Health Hazard Assessment set forth guidelines that list at what point concentrations of certain contaminants pose a risk to human health. EPA combines current toxicity
values of contaminants with exposure factors to estimate the maximum concentration of a contaminant that can be in environmental media before it is a risk to human health. These concentrations set forth by EPA are termed Preliminary Remediation Goals (PRGs) for various pollutants in soil, air, and tap water. PRG concentrations can be used to screen pollutants in environmental media, trigger further investigation, and provide an initial cleanup goal. PRGs for soil contamination have been developed for industrial sites and residential sites. Residential PRGs are more conservative and take into account the possibility of the contaminated environmental media coming into contact with sensitive receptor sites such as nurseries and schools. PRGs consider exposure to pollutants by means of ingestion, dermal contact, and inhalation, but do not consider impacts to groundwater.

**Groundwater Contamination**
Both EPA and DHS regulate the concentration of various chemicals in drinking water. The DHS thresholds are generally stricter than the EPA thresholds. Primary maximum contaminant levels (MCLs) are established for a number of chemical and radioactive contaminants (Title 22, Division 4, Chapter 15, CCR). They are often used by regulatory agencies to determine cleanup standards when groundwater is affected with contaminants.

**Hazardous Materials Release Sites**
Hazardous materials are routinely used, stored, and transported by businesses (including industrial and commercial/retail businesses), public and private institutions (such as educational facilities and hospitals), and households. For a variety of possible reasons (e.g., lack of awareness, accidental occurrences, intentional actions, and historical business practices that pre-date current regulatory standards), there are sites in the plan area where hazardous wastes were released to soil or groundwater during storage, use, transfer, and disposal. These include sites that were historically contaminated but have been remediated and sites that are known or believed to be contaminated that are currently being characterized or cleaned up. Releases can be localized, or may migrate and contaminate nearby areas.

The State Water Resources Control Board (SWRCB) regulates spills, leaks, investigation, and cleanup sites and maintains an online database, GeoTracker, to provide access to environmental data. The GeoTracker database tracks regulatory data about leaking underground storage tank (LUST) sites, fuel pipelines, and public drinking water supplies and presents it in a geographic information system format. GeoTracker contains 119 records for Tuolumne County, exclusive of the City of Sonora. The database indicates that there are 20 permitted underground storage tanks, 18 cleanup or disposal sites, and 80 LUST cleanup sites, most of which have been fully remediated. The majority of the open cases are associated with gas stations or other automotive service related uses, mini-markets, warehouses, or industrial sites. These open cases are mainly located in the larger communities of Columbia, Tuolumne, and Groveland. However, a few are located away from identified communities along SR 120 and SR 108 (SWRCB 2018).

DTSC also maintains a list of cleanup sites and hazardous waste permitted facilities on its EnviroStor database. The EnviroStor database has 17 records for the unincorporated area of Tuolumne County, three of which are active. One of these sites, located on SR 108 in Cold Springs, is currently undergoing corrective action. Soil on the site was found to contain excess soluble lead, copper, and antimony and constituents above hazardous waste levels from use as a logging and disposal site (DTSC 2018).

**Other Sites of Potential Concern**
In addition to the sites listed on databases maintained by regulatory agencies, there is potential for hazardous conditions throughout the County. Historical land uses, such as mines and lumber mills could contain residual chemicals that have not yet been documented. In addition, these sites often pose physical hazards due to weathered infrastructure and open shafts.

**Asbestos**
Asbestos is a highly friable (easily crumbled) material often found in older buildings (typically pre-1979), typically used as insulation in walls or ceilings. It was formerly popular as an insulating material; however, it can
pose a health risk when very small particles become airborne. In conformance with the Clean Air Act, EPA established the National Emissions Standards for Hazardous Air Pollutants (NESHAP) to protect the public. Under NESHAP, the Toxic Substances Control Act banned most spray-applied surfacing materials that contain asbestos beginning in 1973, as well as fireproofing or insulation for decorative purposes since 1978.

Asbestos exposure is a human respiratory hazard when the asbestos becomes friable because inhalation of airborne fibers is the primary mode of asbestos entry into the body. Asbestos-related health problems include lung cancer and asbestosis. Asbestos-containing building materials are considered hazardous by the California Division of Occupational Safety and Health (Cal/OSHA) when bulk samples contain more than 0.1 percent asbestos by weight. Asbestos can be evaluated only by sampling, performed by a certified technician, followed by laboratory analysis. These materials must be handled by a qualified contractor.

Lead-Based Paint
Prior to the enactment of federal regulations limiting their use in the late 1970s, lead-based paint (LBP) was often used in residential construction. Lead is a highly toxic metal that was used for many years in products found in and around homes. Lead may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. The primary source of lead exposure in residences is deteriorating LBP. Lead dust can form when LBP is dry scraped, dry sanded, or heated. Dust also forms when painted surfaces bump or rub together. LBP that is in good condition is usually not a hazard. Regulations for LBP are contained in the Lead-Based Paint Elimination Final Rule 24 Code of Federal Regulations (CFR) 33, governed by the U.S. Department of Housing and Urban Development, requires sellers and lessors to disclose known LBP and LBP hazards to perspective purchasers and lessees. Additionally, all LBP abatement activities must comply with Cal/OSHA, federal Occupational Safety and Health Administration (OSHA), and DHS requirements. Only LBP trained and certified abatement personnel are allowed to perform abatement activities. All LBP removed from structures must be hauled and disposed of by a transportation company licensed to transport this type of material. In addition, the lead contaminated material must be taken to a landfill or receiving facility licensed to accept the waste.

WILDFIRE HAZARDS
The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for identifying the governmental agencies responsible for preventing and suppressing fires in all areas of the state. Within Tuolumne County, areas outside of the Stanislaus National Forest, Yosemite National Park, the City of Sonora, and the unincorporated community of Tuolumne are state responsibility and CAL FIRE is responsible for wildland fire protection. Tuolumne County Fire Department has 13 fire stations throughout the County. Impacts related to the provision of fire protection services are addressed in Section 3.14, “Public Services.”

Wildfire outbreaks occur routinely during Tuolumne County’s dry season. Determination of wildland fire hazards is based on three major factors: fuel loading, weather conditions, and topography. In Tuolumne County, damaging fires are predominantly caused by vehicle and equipment use and arson. The local topography contains rugged terrain, including steep canyons, many of which are inaccessible. Severe fire weather occurs on 35 percent of the days during fire season in the majority of the County. This, combined with the terrain and high hazard fuels, increases the probability that large damaging fires will occur (Tuolumne County 2012). Wildland fires can wreak havoc on homes, recreational and commercial values, destroy fragile habitat, and threaten rare and endangered species. Wildland fires also damage scenic and aesthetic values in rural areas.

The area of Tuolumne County with the greatest wildland fire hazard, based on fuels, weather, and topography, is on the east side of the SR 49 corridor. However, almost every community in Tuolumne County has been threatened by wildfires. Exhibit 3.9-1 shows the Fire Hazard Severity Zones in Tuolumne County, as designated by CAL FIRE.
Through the National Fire Plan, a list of “Communities at Risk” was developed to identify communities at risk from the threat of wildland fire. The list does not include the name of every small community or subdivision. Some of the communities listed cover broad geographic areas that encompass what the general public would assume to include several separate communities. Other communities were named based on their old town-site name, not the current subdivision or current commonly known name. Thirty-two communities within Tuolumne County are listed in the Strategic Fire Plan for the Tuolumne/Calaveras Unit as communities at risk from wildland fires. These communities include Columbia, East Sonora, Jamestown, Tuolumne, and Twain Harte, as listed below (CAL FIRE 2015).

- Arastraville
- Chinese Camp
- Confidence
- East Sonora
- Jamestown
- Lake Don Pedro
- Mi Wuk Village
- Phoenix Lake – Cedar Ridge
- Sonora
- Stent
- Tuttletown

- Buck Meadows
- Cold Springs
- Cow Creek
- Groveland – Big Oak Flat
- Jupiter
- Long Barn
- Moccasin
- Sierra Village
- Soulsbyville
- Tuolumne
- Twain Harte

- Bumble Bee
- Columbia
- Dardanelle
- Harden Flat
- Kennedy Meadow
- Mather
- Mono Village
- Smith Station
- Standard
- Tuolumne Rancheria

**AIRPORT SAFETY HAZARDS**

Two airports are located in Tuolumne County, Columbia Airport and Pine Mountain Lake Airport. The Federal Aviation Administration requires runway protection zones and height limits on structures near airports to reduce risks to the public. In addition, the Tuolumne County Airport Land Use Compatibility Plan (ALUCP) (Tuolumne County ALUC 2003) designates safety zones for the areas surrounding the two airports. The ALUCP promotes compatibility between the airports in Tuolumne County and the land uses that surround them. The ALUCP is limited to roughly a 2- to 3-mile vicinity around the two airports. The Land Use Compatibility Plans for Columbia Airport and Pine Mountain Lake Airport are shown in Exhibits 3.9-2 and 3.9-3. Land uses prohibited by the ALUCP zones are described in Table 3.9-1.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Location</th>
<th>Prohibited Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Runway Protection Zone or Within Building Restriction Line</td>
<td>All structures except ones required by aeronautical function. Assemblages of people. Objects exceeding FAR Par 77 height limits. Aboveground bulk storage of hazardous materials. Hazards to flight.</td>
</tr>
<tr>
<td>B1</td>
<td>Approach/Departure Zone and Adjacent to Runway</td>
<td>Children’s schools, day care centers, libraries. Hospitals, nursing homes. Highly noise-sensitive uses (e.g., outdoor theaters). Above ground bulk storage of hazardous materials. Hazards to flight.</td>
</tr>
<tr>
<td>B2</td>
<td>Extended Approach/Departure Zone</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Common Traffic Pattern</td>
<td>Children’s schools, day care centers, libraries. Hospitals, nursing homes. Hazards to flight.</td>
</tr>
<tr>
<td>D</td>
<td>Other Airport Environ</td>
<td>Hazards to flight.</td>
</tr>
</tbody>
</table>

Source: Tuolumne County ALUC 2003
3.9.2 Regulatory Setting

FEDERAL

Toxic Substances Control Act
The 1976 Toxic Substances Control Act regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. The Model Accreditation Plan, adopted under Title II of the Act, requires that all persons who inspect for asbestos-containing material (ACM) or design or conduct response actions with respect to friable asbestos obtain accreditation by completing a prescribed training course and passing an exam. Section 403 of the Toxic Substances Control Act establishes standards for LBP hazards in paint, dust, and soil.

Resource Conservation and Recovery Act
RCRA (42 U.S. Code [USC] 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal (“cradle to grave”). EPA has authorized DTSC to enforce hazardous waste laws and regulations in California. Under RCRA, DTSC has the authority to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous waste follow state and federal requirements. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills).

Superfund Amendments and Reauthorization Act
The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

EPCRA requires states and local emergency planning groups to develop community emergency response plans for protection from a list of extremely hazardous substances (40 CFR 355 Appendix A). In California, EPCRA is implemented through the Cal ARP program.

Hazardous Materials Transportation
DOT regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials regulations are enforced by the Federal Highway Administration, the Federal Railroad Administration, and the Federal Aviation Administration.

Comprehensive Environmental Response, Compensation, and Liability Act
Brownfield sites are areas with actual or perceived contamination and that may have potential for redevelopment or reuse. Brownfields are often former industrial facilities that were once the source of jobs and economic benefits to the community, but lie abandoned due to fears about contamination and potential liability. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over 5 years, $1.6 billion was collected and the tax went into a fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA was amended in January of 2002 with passage of the Small Business Liability Relief and Brownfields Revitalization Act. This Act provides some relief for small businesses from liability under CERCLA. It authorizes $200 million per fiscal year through 2006 to provide financial assistance for brownfield revitalization. CERCLA also facilitated a revision of the National Contingency Plan,
which provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The plan also established the generation of EPA’s National Priorities List, a list of all the sites with known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. According to the National Priorities List database, there are no Superfund sites within Tuolumne County (EPA 2018).

**National Emissions Standards for Hazardous Air Pollutants**

The asbestos regulations under NESHAP control work practices during the demolition and renovation of institutional, commercial, or industrial structures. Following identification of friable asbestos, OSHA requires that asbestos trained and certified abatement personnel perform asbestos abatement and all ACM removed from on-site structures shall be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos.

**Clean Water Act**

The U.S. Environmental Protection Agency (EPA) is the federal agency primarily responsible for water quality management. The CWA establishes the basic structure for regulating discharges of pollutants into “waters of the United States.” The Act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include:

**Section 311** details the Spill Prevention and Countermeasure Control (SPCC) rule, which requires facilities to prepare and maintain a SPCC plan. A facility falls under federal jurisdiction and the SPCC rule if it has an aggregate aboveground oil storage capacity greater than 1,320 U.S. gallons or a completely buried storage capacity greater than 42,000 U.S. gallons and there is a reasonable expectation of an oil discharge into or upon navigable waters of the U.S. or adjoining shorelines. A SPCC plan describes oil handling operations, spill prevention practices, discharge or drainage controls, and the personnel, equipment, and resources at a facility that are used to prevent oil spills from reaching navigable waters or adjoining shorelines.

**STATE**

**California Accidental Release Prevention Program**

Cal ARP (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a specified volume of regulated substances at their facilities. The Cal ARP program regulations became effective on January 1, 1997, and include the provisions of the federal Accidental Release Prevention program (Title 40, CFR Part 68), with certain additions specific to the state pursuant to Health and Safety Code Section 25531 et seq. The list of regulated substances is found in 19 CCR Section 2770.5 of the Cal ARP program regulations. Businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete RMPs. An RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The purpose of an RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. An RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day-care facilities, as well as external events such as seismic activity.

**California Government Code Section 65962.5**

California Government Code Section 65962.5 requires DTSC to compile and maintain lists of potentially contaminated sites located throughout the State of California. This “Cortese List” includes hazardous waste and substance sites from DTSC’s database, LUST sites from the SWRCB’s database, solid waste disposal sites with waste constituents above hazardous waste levels outside of the waste management unit, Cease
and Desist Orders and Cleanup and Abatement Orders concerning hazardous wastes, and hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

There are no sites in unincorporated Tuolumne County on DTSC’s database of hazardous waste and substance sites, and there are no solid waste disposal sites in the County with waste constituents above hazardous waste levels outside of the waste management unit. There are six Cease and Desist Orders and Cleanup and Abatement Orders in the unincorporated County area, but none are apparently concerning hazardous waste. As described above, there are several records of LUST sites in the County (DTSC 2018).

Hazardous Waste Control Act
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, Health and Safety Code Section 25100 et seq. and Title 26 of the CCR, 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
The Hazardous Materials Release Response Plans and Inventory Law, Health and Safety Code Section 25500 et seq., aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on site, to prepare an emergency response plan, and to train employees to use the materials safely.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan
The State of California has adopted DOT regulations for the movement of hazardous materials originating within the state and passing through the state. State regulations are contained in Title 26 of the CCR. State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the CHP and Caltrans. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

The State of California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the California Office of Emergency Services, which coordinates the responses of other agencies in the area.

Worker and Workplace Hazardous Materials Safety
Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers are informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, material safety data sheets are to be available in the workplace, and employers are to properly train workers.

California State Aeronautics Act
At the state level, Caltrans’s Division of Aeronautics administers Federal Aviation Administration regulations. The division issues permits for hospital heliports and public-use airports, reviews potential and future school sites proposed within 2 miles of an airport and authorizes helicopter landing sites at or near schools. In addition, it administers noise regulation and land use planning laws, which regulate the operational activities and provides for the integration of aviation planning on a regional basis.
CAL FIRE Regulations
Title 14 of the CCR establishes regulations for CAL FIRE in areas where CAL FIRE is responsible for wildfire protection. These regulations constitute the basic wildland fire protection standards of the California Board of Forestry and Fire Protection. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in state recreation areas. Additionally, Title 14 sets forth the minimum standards for emergency access, fuel modification, setback, signage, and water supply.

Emergency Services Act
Under the Emergency Services Act, Government Code Section 8550 et seq., the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including EPA, the CHP, regional water quality control boards, air quality management districts, and county disaster response offices.

International Building Code
In January of 2008, California officially switched from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

Government Code Section 66474.02
Before approving a tentative map (or a parcel map where a tentative map is not required) for an area located in a State Responsibility Area or a very high fire hazard severity zone, the County Board of Supervisors must find that: the design and location of each lot in the subdivision, and the subdivision as a whole, are consistent with any applicable regulations adopted by CAL FIRE pursuant to Public Resources Code Sections 4290 and 4291; structural fire protection and suppression services will be provided to the subdivision by a county, city, special district, or other entity organized solely to provide fire protection services, or CAL FIRE; and ingress and egress meets the road standards for fire equipment access adopted pursuant to Public Resources Code Section 4290 and any applicable local ordinance.

2010 Strategic Fire Plan for California
The 2010 Strategic California Fire Plan is the state’s road map for reducing the risk of wildfire. By emphasizing fire prevention, the Fire Plan seeks to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health.

LOCAL
Certified Unified Program Agency
Pursuant to Senate Bill 1082 (1993), the State of California adopted regulations to consolidate six hazardous materials management programs under a single, local agency, known as the Certified Unified Program Agency. In addition to conducting annual facility inspections, the Hazardous Materials Program is involved with hazardous materials emergency response, investigation of the illegal disposal of hazardous waste, public complaints, and storm water illicit discharge inspections. In January 1997, the Tuolumne County Environmental Health Division was designated as the Certified Unified Program Agency by the Secretary of the California Environmental Protection Agency for Tuolumne County. Accordingly, it is the Environmental Health Division’s responsibility to prevent public health hazards in the community and to ensure the safety of water and food. The Environmental Health Division coordinates activities with federal, state, and regional agencies when planning programs that deal with the control of toxic materials, housing conditions, nuisance complaints, protection of food and water supply, public bathing areas, and sewage and solid waste.
Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan
Implementation of the *Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan* (HMP) (2018) is a coordinated effort between Tuolumne County, the City of Sonora, the Tuolumne Utilities District, the Sonora Union High School District, the Groveland Community Services District, Twain Harte Community Services District, Mi-Wuk Sugar Pine Fire Protection District, Bellevue Elementary School District, Big Oak Flat-Groveland Unified School District, Jamestown Sanitary District, Columbia Fire Protection District, Columbia Union School District, Curtis Creek School District, Jamestown Elementary School District, Sonora Elementary School District, Summerville Elementary School District, Summerville Union High School District, Twain Harte Long Barn School District, and the Tuolumne Band of Me-Wuk Indians to effectively deal with natural catastrophes that affect the County. The HMP addresses risks associated with numerous hazards, including wildfire, earthquake, flooding, sinkholes, and extreme weather.

Tuolumne County Emergency Operations Plan
The Tuolumne County Emergency Operations Plan delineates the County’s procedures and policies in response to a significant disaster, including extreme weather, flood or dam failure, earthquakes, hazardous materials, terrorism or civil disturbance, transportation accidents, and wildland fires. The Emergency Services Plan assists with emergency response through:

- establishing emergency response policy;
- identifying authorities and assigns responsibilities for planning and response activities;
- identifying the scope of potential hazards;
- identifying other jurisdictions and organizations to coordinate planning with;
- determining emergency organization structure;
- establishing policies for providing emergency information to the public;
- outlining preplanned response actions, describes the resources available to support response activities;
- outlining actions to return County operations to normal;
- guiding area governments through recovery;
- establishing responsibilities within the County for the maintenance of the overall emergency preparedness program;
- outlining the process for ordering and rendering mutual aid; and
- facilitating the continuity of governments.

County 4290 In Lieu Regulations
California Public Resources Code Section 4290 requires local jurisdictions in California to adopt General Plan Safety elements that meet Section 4290 standards or, in lieu of this regiment, local jurisdictions must adopt local fire safe ordinances addressing issues including emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation modification. The County currently has local fire safe ordinances in place in Titles 11, 15, and 16 of the Tuolumne County Ordinance Code. The California Board of Forestry and Fire Protection certified the County’s fire safe ordinances in 2016.
Tuolumne County General Plan
The 1996 General Plan includes policies related to wildland fires, emergency services, and hazardous materials in the Safety Element. As the proposed project would update the 1996 General Plan, this document will be discussed in the context of the update within the impact analysis. The Public Safety Element contains goals, policies, and implementation programs address hazards and hazardous materials. Specific General Plan Update policies related to hazardous materials, airports, and wildfire are identified below under Section 3.9.3, “Impact Analysis.”

3.9.3 Impact Analysis

METHODS OF ANALYSIS
The analysis of impacts associated with hazards and hazardous materials is based on available information, including a review of databases containing information on hazardous materials sites. The analysis assumes that future and existing development within the plan area would comply with all applicable laws, regulations, design standards, and plans.

THRESHOLDS OF SIGNIFICANCE
For the purpose of this analysis, a significant impact would occur if physical changes from projected development under the General Plan Update would result in the following conditions, listed in Appendix G of the CEQA Guidelines, without providing a mechanism to address potential site-specific impacts:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of 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 emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;
- be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- result in a safety hazard for people residing or working in the project area, if the project is located within an airport land use plan or in the vicinity of a private airstrip;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

GENERAL PLAN UPDATE POLICIES
The following policies and implementation programs from the General Plan Update are applicable to the evaluation of effects related to hazardous materials, airport compatibility, and wildfire:

Community Development and Design Element

- **Policy 1.B.1:** Protect existing land uses from the infringement of and impacts associated with incompatible land uses.
Implementation Program 1.B.b: Designate, where possible, land around existing residential neighborhoods for uses that are compatible with residences. Designate areas for new urban residential development away from existing incompatible land uses, such as agriculture, mining, industry, solid waste facilities, airports and sewage treatment facilities.

Implementation Program 1.B.c: Separate new urban residential development from land uses that potentially conflict with housing, such as agriculture, mining, industry, airports and sewage treatment facilities.

Policy 1.B.2: Protect public facilities from the infringement of incompatible land uses.

Implementation Program 1.B.e: Designate land around the County's airports for uses that are consistent with the Tuolumne County Airport Land Use Compatibility Plan and airport master plans.

Policy 1.E.4: Maintain development standards for housing projects that reflect and consider natural and cultural features, noise exposure of residents, fire hazard, circulation, access and the relationship of the development to surrounding land uses. These requirements determine residential densities and patterns which may result in a density that is less than the maximum specified by General Plan designations.

Transportation Element


Policy 4.F.1: Plan for future airport operations, considering possible expansion of airport operations, services and the proximity of adjacent land uses.

Implementation Program 4.F.a: Implement and periodically update the Columbia Airport Master Plan in order to update operational and safety procedures, reflect State and Federal mandates, better utilize Airport property and recommend land use compatibility standards for land surrounding the Airport.

Implementation Program 4.F.b: Implement and periodically update the Pine Mountain Lake Airport Master Plan to guide the development of the Pine Mountain Lake Airport. The master plan should reflect desired operational and safety procedures, State and Federal mandates, and the internal needs of the Airport.

Policy 4.F.2: Encourage development in the vicinity of County airports that would not cause land use conflicts, hazards to aviation or hazards to the public.

Implementation Program 4.F.d: Require future County-owned, public-use airport facilities and surrounding land use zones to be master planned prior to operation in order to establish safe operation of the airport.

Implementation Program 4.F.e: Review General Plan Amendments, Zone Changes, and development applications within the referral area of a County airport for consistency with the Airport Land Use Compatibility Plan in order to continue safe operation of the airports.

Public Safety Element

Policy 9.A.1: Actively involve fire protection agencies within Tuolumne County in land use planning decisions.

Implementation Program 9.A.a: Assess the effects of land development applications on fire protection capability during the review of applications. The assessment should incorporate
comments from all affected fire protection agencies, not just those with jurisdiction over the project site because wildland fire originating on the site could cross jurisdictional boundaries. Appropriate measures should be formulated and implemented to reduce the safety concerns and fire hazards which could result from approval of the application. Recommendations should specify the source of funding for implementation and maintenance of identified fire protection measures.

- **Implementation Program 9.A.b:** Actively involve all fire agencies, including local fire agencies, within the County when considering revisions to County fire protection regulations which may affect the districts.

- **Policy 9.A.2:** Encourage all fire protection agencies (Federal, State, and local) within the County to maintain communication with each other and with the Office of Emergency Services and the Community Resources Agency to promote an integrated approach to fire protection planning.

- **Implementation Program 9.A.c:** Work cooperatively with CAL FIRE and local fire agencies to manage wildland fire hazards.

- **Policy 9.A.4:** Actively support efforts to maintain and improve Federal and State fire service capabilities.

- **Implementation Program 9.A.d:** Support efforts of CAL FIRE, the U.S. Forest Service, the National Park Service, other government land management agencies, the Southwest Interface Team (SWIFT), the Highway 108 Fire Safe Council, the Yosemite Foothills Fire Safe Council and other regional fire safe entities, to secure adequate funding for their fire protection and fuel reduction programs, and support their efforts to reduce the wildland fire potential on lands under their jurisdiction within Tuolumne County.

- **Policy 9.A.5:** Consult with CAL FIRE, the U.S. Forest Service, the National Park Service and local fire agencies on fire prevention programs in order to maximize the distribution of information to the public.

- **Implementation Program 9.A.e:** Work with the U.S. Forest Service, CAL FIRE, local fire agencies, the Southwest Interface Team (SWIFT), the Highway 108 Fire Safe Council, the Yosemite Foothills Fire Safe Council, and community fire prevention auxiliary groups within the County to distribute information regarding the wildland fire hazard present within the County, recommended fire prevention practices, and required fire protection measures.

- **Policy 9.A.6:** Support the Strategic Fire and Resource Protection Planning program within Tuolumne County.

- **Policy 9.B.1:** Maintain an effective Tuolumne County Emergency Operation Plan to direct the response for a natural disaster or other emergency.

- **Implementation Program 9.B.a:** Periodically review and update Chapter 2.40 (Emergency Services) of the Tuolumne County Ordinance Code to evaluate consistency with State and Federal laws and regulations, to assess the current emergency response organization, and to ensure an accurate composition of the Tuolumne County Emergency Services Operational Area Committee.

- **Implementation Program 9.B.b:** Ensure the Emergency Operations Plan for Tuolumne County is consistent with the provisions of Articles 1-8 of Division 2 of Title 19 of the California Code of Regulations regarding the Standardized Emergency Management System (SEMS) and with the National Incident Management System (NIMS). The Emergency Operations Plan for Tuolumne County should be reviewed every two years and updated as necessary, in order to incorporate changes in governmental regulations and operational practices.

- **Policy 9.B.5:** Ensure that current emergency services are adequate to protect public health and safety in the event of natural and manmade hazards, including terrorist incidents and public health pandemics.
Implementation Program 9.B.h: Implement the Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan to protect life, safety, and property by reducing the potential for future damages and economic losses that result from natural and manmade hazards.

Implementation Program 9.B.i: Improve interdepartmental communications in order to coordinate fire emergency response between the Tuolumne County Office of Emergency Services, the Tuolumne County Fire Department, local fire agencies, CAL FIRE, the U.S. Forest Service, the National Park Service, the County Sheriff and other agencies.

Implementation Program 9.B.j: Coordinate maintenance of and improvements to emergency communications systems in the County so that they are capable of supporting use by emergency services during large fire emergencies and incidents in the higher elevations of the County. Coordination should include the Stanislaus National Forest, Yosemite National Park and fire protection agencies responsible for areas located east of Twain Harte.

Policy 9.E.1: Evaluate the circulation system to identify areas causing delay of emergency vehicle response and evacuation due to traffic congestion.

Implementation Program 9.E.b: Require that new development be provided with access roads that allow for safe and efficient response by emergency apparatus and the safe evacuation of residents in the event of structural or wildland fire.

Implementation Program 9.E.c: Consider roadways designated as arterials in the Transportation Element as primary evacuation routes on a County-wide basis. Such routes provide the highest vehicle capacity and serve as the primary means of egress from the County.

The routes designated as collector routes shall be considered secondary evacuation routes on a Countywide basis. These routes provide egress from local neighborhoods and communities.

Require new development to be served by roads which provide safe emergency vehicle response and safe evacuation routes to the nearest arterial or collector route in the event of wildland fire emergency pursuant to Chapter 11.12 of the Tuolumne County Ordinance Code.

Policy 9.E.3: Require new development to be consistent with State and County regulations and policies regarding fire protection.

Policy 9.G.1: Maintain County fire protection regulations that are consistent with Section 4290 or the equivalent of the California Public Resources Code and other applicable fire protection regulations.

Policy 9.G.2: Require new residential development to have adequate fire protection, which may include design and maintenance features that contribute to the protection of the County from the losses associated with wildland fire. Periodically update the County's fire protection standards to reflect new information and technology concerning fire prevention in wildland areas.

Implementation Program 9.G.c: Revise the County's development standards as necessary to reflect contemporary fire prevention and protection practices and measures and to determine that needed fire protection infrastructure, including road networks and water systems, are installed and maintained.

Policy 9.G.4: Require that residential development provide for defensible space around structures.

Implementation Program 9.G.e: Revise and enforce County fire protection regulations that require residential development to provide defensible space for structural fire protection consistent with Section 4290 of the California Public Resources Code and Section 15.20.060 of the Tuolumne County Ordinance Code.
Policy 9.I.1: Ensure that the use, storage, transport, treatment and disposal of hazardous materials and hazardous wastes within Tuolumne County complies with Federal, State, and local regulations and safety standards.

- Implementation Program 9.I.a: Implement the Tuolumne County Comprehensive Hazardous Waste Management Plan to protect life, safety, and property by reducing the potential for future damages and economic losses that result from hazardous materials and hazardous waste.

- Implementation Program 9.I.b: Require that industrial plants, mining operations and other facilities which handle or use hazardous materials or hazardous waste be constructed and operated in compliance with current standards for safety and environmental protection.

- Implementation Program 9.I.c: Review development applications for projects that would manufacture, process, or dispose of hazardous materials or hazardous waste for compliance with the Tuolumne County Comprehensive Hazardous Waste Management Plan.

- Implementation Program 9.I.d: Provide for the review of applications for discretionary entitlements for projects which would utilize hazardous materials or generate hazardous wastes by the Tuolumne County Environmental Health Division and the Tuolumne County Fire Department for compliance with the latest adopted regulations for safety and environmental protection.

Policy 9.I.2: Protect schools from the risks associated with facilities involved in the handling of hazardous materials or disposal of hazardous waste.

Natural Hazards Element

Policy 17.E.1: Reduce the exposure to risk from wildland fire to an acceptable level by only allowing development in high or very high fire hazard areas if it can be made safe by planning, construction, or other fire safety measures.

- Implementation Program 17.E.a: Utilize the CAL FIRE Forest and Resource Assessment Program "Fire Hazard Severity Zone Map," including revisions thereto, as a basis for determining the significance of fire hazards when reviewing development applications.

- Implementation Program 17.E.b: Recognize that new development, including urban or clustered development, is acceptable in moderate, high and very high fire hazard zones, provided that project design meets California Building and Fire Codes including Wildland-Urban Interface Building Codes. Such developments may be required to provide and maintain additional off-site fire defense improvements.

Policy 17.E.2: Require the maintenance of defensible space setbacks in areas proposed for development if wildland fire hazards exist on adjacent properties.

Policy 17.E.3: Require new development to have adequate fire protection and to include, where necessary, design and maintenance features that contribute to the protection of the County from the losses associated with wildland fire.

- Implementation Program 17.E.c: Require new development to mitigate wildland fire hazards in such a manner that it minimizes the chance of wildland fire originating outside the development from entering the development and minimizes the chance of fire originating within the development escaping to adjoining property and adjacent wildland.

- Implementation Program 17.E.d: Require developers to incorporate fire protection improvements into project designs where determined necessary by the Tuolumne County Fire Department and require maintenance of these improvements. Fuelbreaks, green belts, long-term comprehensive fuel
management programs, access to developed water sources, strategic helispots (with water supply), and perimeter road systems can all serve to reduce the fire hazard on project sites as well as adjacent property.

- **Implementation Program 17.E.e:** Require new development in areas subject to wildland fire to provide safe ingress and egress in accordance with Chapter 11.12 of the Tuolumne County Ordinance Code. Encourage new development that complies with Chapter 11.12 to provide multiple access routes, especially in very high fire hazard severity zones or where one access route is susceptible to closure by landslide, loss of a bridge or other cause.

- **Implementation Program 17.E.f:** Support the efforts of the Tuolumne County Fire Department to prevent loss of life, property and resources. Refer land development applications which would permit structures in areas subject to wildland fire to the Tuolumne County Fire Department/CAL FIRE for review and identification of measures necessary to mitigate the fire hazard.

- **Implementation Program 17.E.g:** Consult the U.S. Forest Service, National Park Service and other federal land management agencies regarding applications for development on privately owned lands located adjacent to or within these agencies’ boundaries to obtain comments regarding the impact of the project on the wildland fire protection mission of that agency.

- **Implementation Program 17.E.h:** Revise and enforce County fire protection regulations such that new development in areas subject to wildland fire provides for clearing adjacent to access roads in order to reduce radiant heat received by vehicles on the roadway and thereby facilitate safe evacuation of residents and response by emergency vehicles in the event of wildland fire.

- **Implementation Program 17.E.i:** Periodically update the County’s fire protection standards to reflect new information and technology concerning fire prevention in wildland areas.

- **Implementation Program 17.E.j:** Locate new essential public facilities including, but not limited to, hospitals, health care facilities, emergency shelters, emergency operations centers and emergency communications facilities, outside very high fire hazard severity zones if feasible. If essential public facilities must be located in high or very high fire hazard severity zones, incorporate design, construction or other measures to minimize damage in the event of a wildland fire.

- **Policy 17.E.4:** Promote public awareness of wildland fire hazards present within the County, as well as proper fire prevention and protection practices.

- **Implementation Program 17.E.k:** Actively seek funding to develop fire prevention public awareness and education programs.

- **Implementation Program 17.E.l:** Educate residents in forested areas about wildfire hazards and the steps to avoid excessive risk.

- **Policy 17.E.7:** Protect natural resources from the effects of wildland fire.

- **Implementation Program 17.E.p:** In the event of major wildland fires that exceed the capability of local fire protection resources to control, implement the Wildland Fire Plan contained in the *Emergency Services Plan for Tuolumne County*.

- **Implementation Program 17.E.q:** Coordinate revisions of the *Tuolumne County Community Wildfire Protection Plan* and individual community wildfire protection plans with the current version of the *CAL FIRE Strategic Fire Plan for the Tuolumne/Calaveras Unit* to include projects to reduce the wildland fire in the County.
Implementation Program 17.E.r: Utilize the Tuolumne County Community Wildfire Protection Plan, the Highway 108 Strategic Plan, the CAL FIRE Strategic Fire Plan for the Tuolumne/Calaveras Unit and other adopted fire prevention, protection and response plans to identify the maximum acceptable wildfire size and acceptable initial attack success rate for protection of wildland areas and provide the resources necessary to achieve these standards.

Policy 17.E.8: Require property owners to maintain wildlands in a fire resistant manner consistent with Section 4291 of the Public Resources Code. Assist fire protection agencies in their efforts to enforce Section 4291.

Implementation Program 17.E.s: Maintain the County’s policies concerning development in the Tuolumne County Ordinance Code in the wildland urban interface area to further reduce the risk of life and property loss from future wildfires.

Implementation Program 17.E.t: Require property owners to remove trees killed by drought, disease, insects and other pests to utilize the timber value and reduce the wildland fire hazard consistent with Section 4291 of the Public Resources Code unless a tree is determined to have significant wildlife habitat value by a qualified biologist.

PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts associated with hazards and hazardous materials from projected development under the General Plan Update. Evaluation of environmental impacts associated with the General Plan Update considers the development that would be facilitated by the General Plan Update, in accordance with goals, policies, and implementation programs, to accommodate projected growth in the County. It should be noted that the County’s population is projected to grow by 0.6 percent annually over the planning horizon (2040). As discussed in detail in Chapter 2, “Project Description,” and the introduction to Chapter 3, this is a relatively low amount of growth.

Impact 3.9-1: Create a Significant Hazard to the Public or the Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials or Reasonably Foreseeable Upset of Known Hazards

Potential development near known hazardous material users, construction in areas with existing hazardous materials, or accidental releases of hazardous materials during transportation could expose individuals to health risks due to soil/groundwater contamination or emission of hazardous materials into the air. However, compliance with federal, state, and local regulations would reduce the potential for substantial hazardous or upset conditions. This is a less-than-significant impact.

Projected development under the General Plan Update may result in infill and redevelopment, which could necessitate demolition of existing structures and could result in development of residential uses or schools in proximity to commercial or industrial uses that use or store hazardous materials. In addition, hazardous materials are routinely transported by trucks along the major state routes and roadways, and on railways throughout the County; however, transportation of such materials is highly regulated to ensure the safety of the public. Negligence during use, construction activities, or accidents involving the transport of these materials could result in the release of hazardous substances into the environment, creating an emergency situation that could be detrimental to the public or environment.

Older structures throughout the County could potentially contain ACM and/or LBP. If demolition of these structures occurs, ACM or LBP could be released, resulting in adverse health effects. Exposure pathways by which receptors could be exposed to hazardous materials include:

- direct dermal contact with hazardous materials;
incidental ingestion of hazardous materials (e.g., if workers fail to wash their hands before eating, drinking, or smoking); and

inhala\tion of airborne dust released from dried hazardous materials.

Various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities. These requirements include: Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the CCR; 40 CFR Part 61, Subpart M (pertaining to asbestos); and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development. In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from DHS. In addition, Cal/OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee-training programs. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

In addition to the hazards associated with demolition, the grading, excavation, and dewatering of sites for new development may also expose construction workers and the public to known or previously unreported hazardous substances present in the soil or groundwater. As stated above, there are sites in the County that are listed on the state’s databases of identified sites where hazardous materials contamination may occur. In addition to these recorded sites, existing land uses in the County that may contain contamination include former mining facilities, industrial and commercial properties, and gas stations. It is also possible that old underground storage tanks that were in use prior to permitting and record keeping requirements may be present throughout the County.

Disturbance of sites with previously unknown hazardous material contamination could cause various short- or long-term adverse health effects in persons exposed to the hazardous substances. If new development is proposed at or near a documented or suspected hazardous materials site, investigation, remediation, and cleanup of the site would be required before construction could begin. These activities would occur under the supervision of DTSC, the Regional Water Quality Control Board, and/or the Tuolumne County Environmental Health Division, depending on the particular characteristics of each site. If an unidentified underground storage tank were uncovered or disturbed during construction activities, it would be sealed and abandoned in place or removed. The extent to which groundwater may be affected depends on the type of contaminant, the amount released, and depth to groundwater at the time of the release. If groundwater contamination is identified, remediation activities would be required by the Regional Water Quality Control Board.

Schools are considered particularly sensitive receptors relative to hazardous material exposure because there is a concentration of children that is repeatedly exposed to environmental conditions at the school site for extended periods of time. During construction, demolition, and excavation activities, the projected development under the General Plan Update would potentially produce hazardous air emissions or involve the handling of extremely hazardous wastes. As discussed above, the subsequent projects would be required to comply with federal and state regulations that are designed to reduce the potential for release of hazardous materials and wastes into the environment or to limit such releases to an acceptable level. Existing protective measures and regulations would be sufficient to ensure that hazardous materials stored, used, transported, and disposed by projected development under the General Plan Update would not pose a significant hazard to the public or the environment, including children at schools, under normal conditions.

As mentioned in Section 3.9.1, “Environmental Setting,” SWRCB’s GeoTracker database identifies 98 cleanup or disposal or LUST cleanup sites, most of which have been fully remediated, and DTSC’s EnviroStor database identifies 17 records for the unincorporated area of Tuolumne County, three of which are active. Most of the identified sites are associated with gas stations or other automotive service related uses, mini-markets, warehouses, or industrial sites. Any development on one of these sites would be required to
address the contamination to prevent the release of hazardous materials in compliance with existing regulations and under the oversight of the applicable regulatory body.

Throughout the life of the General Plan Update, hazardous materials would be used, transported, and stored throughout the plan area. Routine use and transport of hazardous materials is regulated by a number of federal, state, and local regulations. Most household and general commercial uses of hazardous materials would be very minor and would not result in a substantial increase in the risk of a hazardous materials incident. Businesses that use or store hazardous materials above reportable quantities would be required to complete a Hazardous Materials Business Plan. Potential incidents may include accidental spills or releases, intentional releases, and/or the release of hazardous materials during or following a natural disaster such as an earthquake or flood.

Project applicants, builders, contractors, business owners, and others would be required to use, store, and transport hazardous materials in accordance with local, state, and federal regulations, including Cal/OSHA and DTSC requirements and manufacturer’s instructions, during project construction and operation. Transportation of hazardous materials on area roadways is also regulated by the CHP and Caltrans. Title 49 of the CFR, Hazardous Materials Regulations, includes requirements for the classification of materials, packaging, hazard communication, transportation, handling, hazardous materials employee training, and incident reporting. The California Department of Public Health regulates the haulers of hazardous waste. A valid registration issued by DTSC is required, unless specifically exempted, to transport hazardous wastes, and the California Department of Motor Vehicles requires all hazardous materials transporters to possess a commercial driver’s license with a hazardous materials endorsement. Vehicle Code Section 31303 outlines general routing and parking restrictions for hazardous material and hazardous waste shipments, and the CHP publishes a list of restricted or prohibited highways. The Federal Motor Carrier Safety Administration also maintains a Hazmat Route Registry that describes the highway routes that must be utilized for the transport of certain classes of hazardous waste that is monitored and regulated by the administration’s field office and the CHP. Facilities that would use hazardous materials on-site would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases, including preparation of a SPCC plan. Because projects would be required to implement and comply with existing hazardous material regulations, impacts related to the creation of significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials would be unlikely.

The General Plan Update’s Public Safety Element contains several policies that would protect County residents and the environment from exposure to hazardous materials. Policy 9.I.1 would ensure that use, storage, treatment, and disposal of hazardous materials complies with federal, state, and local regulations through Implementation Programs 9.I.a through 9.I.d, which also implement the Tuolumne County Comprehensive Hazardous Waste Management Plan and provide for review of applications for discretionary elements of projects that would use or generate hazardous materials by the Tuolumne County Environmental Health Division and the Tuolumne County Fire Department. Policy 9.I.2 would protect schools from hazards associated with handling or disposal of hazardous materials. Policy 9.B.5 and Implementation Program 9.B.h would protect public health and safety through implementation of the HMP.

Projected development under the General Plan Update could result in an increased potential for use, transport, and disposal of hazardous materials during construction and operation of development. As discussed above, there are existing regulations that address hazardous materials use, transport, and disposal, as well as the remediation of sites where contamination has occurred. The General Plan Update policies would generally support the implementation of these existing regulations and promote local oversight of discretionary projects. Therefore, the potential for projected development under the General Plan Update to create a significant hazard through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset of known hazards would result in a less-than-significant impact because of the existing regulatory environment, the relatively limited number of sites with existing contamination, and the General Plan Update policies that ensure compliance with existing regulations.
Mitigation Measures
No mitigation is required.

Impact 3.9-2: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires

Projected development under the General Plan Update would introduce residential land uses into areas designated as Moderate or High Wildland Fire Hazard areas. However, because development in accordance with the General Plan Update would be largely within identified communities and compliance with General Plan Update policies and state and local regulations would require development standards, defensible space, and other features to reduce the potential for wildland fire hazards, projected development under the General Plan Update would result in less-than-significant impacts.

Fire hazards in Tuolumne County range from moderate in the far western portion of the County to very high in the central portion (see Exhibit 3.9-1). Communities in the very high fire hazard zone include Twain Harte, Moccasin, Columbia, and Harden Flat. These communities are surrounded by grass, brush, and timber lands. The eastern portion of Tuolumne County, approximately 70 percent of the County, is federally owned and consists of forest lands. Given the combinations of fuels, weather, and topography, as well as the past fire history of the County, the Tuolumne County Multi-Jurisdictional HMP (2018) indicates that the probability of significant wildfire occurring in the future is high. The risk for personal injury and loss of life, and the potential losses of structures and personal property, is also rated as high.

Projected development under the General Plan Update would occur primarily in and around the identified communities. Many of these communities are included on CAL FIRE’s list of Communities at Risk and are located in wildland fire hazard areas. To decrease the hazard of fire in these areas, the Strategic Fire Plan for the Tuolumne/Calaveras Unit provides guidance to reduce structural ignitability. Adherence to the California Building Code Chapter 7A, Fire Hazard Severity Zones and Building Standards and Materials, and Public Resource Code 4291, requiring property owners to maintain clearance of flammable vegetation of 100 feet from structures, would also reduce the risk of fire.

The General Plan Update includes several policies and implementation programs related to wildland fire. Policy 1.E.4 in the Community Development and Design Element would maintain development standards for housing projects that consider fire hazard and the relationship of the development to surrounding land uses. In the Public Safety Element, Policy 9.E.3 would require new development to be consistent with state and County regulations and Policy 9.G.2 would require new residential development to have adequate fire protection. Implementation Program 9.G.c would revise the County’s development standards, as necessary to reflect contemporary fire prevention and protection measures. Policy 9.G.4 would require residential development to provide defensible space, and Policy 9.G.1 and Implementation Program 9.G.e would revise County regulations to be consistent with the California Public Resources Code and the Tuolumne County Ordinance Code. Implementation Program 9.E.b would require new development to have access roads for safe evacuation in the event of a wildland fire.

The Natural Hazards Element also includes policies to reduce the potential for exposure to risk associated with wildland fire. Development in high or very high fire hazard areas is addressed in Policy 17.E.1 and Implementation Programs 17.E.a and 17.E.b. Policy 17.E.2 would require maintenance of defensible space where there is a wildfire hazard on adjacent property. Policy 17.E.3 and Implementation Programs 17.E.c through 17.E.e would require new development to mitigate fire hazards and provide safe access.

effects of land development applications on fire protection capability and recommend measures to reduce fire hazards through Implementation Program 9.A.a.

The HMP also identifies critical facilities and infrastructure that include emergency operations centers and evacuation shelters. These critical facilities would provide emergency support to residents during potential wildfire events. (For a discussion related to potential conflicts with emergency response/evacuation plans, please see Impact 3.9-4 below.) The implementation of these policies and implementation programs would reduce potential risk of injury or damage from wildland fires by providing specific requirements for new and existing development to reduce fire hazard, ensure emergency access, and provide for safe evacuation. Adherence to existing regulations and to General Plan Update policies and implementation programs would ensure that impacts related to wildland fires would be less than significant.

Mitigation Measures
No mitigation is required.

Impact 3.9-3: Result In a Safety Hazard for People Residing or Working Within an Airport Land Use Plan or In the Vicinity of a Private Airstrip

Public and private airports in Tuolumne County could create safety hazards for nearby development. Careful land use planning in accordance with General Plan Update policies and continued coordination with the ALUCP would reduce the potential for airport-related safety hazards. Impacts would be less than significant.

Most of the public safety risk created by airports is attributed to aircraft accidents in the vicinity of populated areas. Land use planning considerations can help reduce risks to the public by preventing dense residential development, schools, hospitals, or other densely populated uses that could put residents or workers in harm’s way, should an accident occur. Existing airport facilities in Tuolumne County are the Columbia Airport and Pine Mountain Lake Airport. The two airports are included in the ALUCP. The ALUCP describes land use and development restrictions within the designated safety zones, as illustrated on Exhibits 3.9-2 and 3.9-3.

Projected development under the General Plan Update would occur primarily in and around the identified communities. The Columbia Airport is located near Columbia and the Pine Mountain Lake Airport is located to the southeast of Groveland and Pine Mountain Lake. To minimize compatibility issues, the ALUCP limits the height, type, and intensity of land uses surrounding airports to reduce safety concerns associated with aircraft crashes, as well as uses that are sensitive to noise. A local jurisdiction may override an airport land use commission compatibility determination for any proposed incompatible land use by a two-thirds majority vote; however, the jurisdiction must notify the Division of Aeronautics and the commission of this intent. Any potential noise or safety incompatibility concern with locating a specific land use close to an airport is thoroughly reviewed with specific recommendations set forth by the airport land use commission.

General Plan Update Policies 1.B1, 1.B.2, and 4.F.2 would protect existing land uses and public facilities from the effects of incompatible land uses by designating land around existing airports in a manner consistent with the ALUCP and designating areas for new residential development away from airports through Implementation Programs 1.B.c and 1.B.e. Future airport operations would also be planned for through Policy 4.F.1 and Implementation Programs 4.F.a and 4.F.b, which require implementation and update of the airport master plans, and Implementation Program 4.F.d, which would require master planning for any future airports. Further, under Implementation Program 4.F.e, the County would review applications for consistency with the ALUCP.

Therefore, while future development could conflict with the requirements of the ALUCP, the General Plan Update contains policies to ensure land use compatibility on a project-specific basis. The ALUCP also prevents any above-ground bulk storage of hazardous materials in Zone B2, and prohibits any other uses that may cause hazards to flights within any of the safety zones. Compliance with the ALUCP would substantially limit the potential for exposure of people to aircraft-related hazards. Adherence to existing
regulations and to General Plan Update policies and implementation programs would ensure impacts related to airport safety hazards are **less than significant**.

**Mitigation Measures**
No mitigation is required.

**Impact 3.9-4: Impair Implementation of, or Physically Interfere with, an Adopted Emergency Response Plan or Emergency Evacuation Plan**

Projected development under the General Plan Update would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan because the General Plan Update policies would limit the potential for hazards, particularly associated with wildfire potential and emergency access. Impacts would be **less than significant**.

Tuolumne County maintains an HMP and Emergency Operations Plan. Through the development approvals and coordination processes described above, the County would limit the potential for hazards, particularly associated with wildfire and emergency access, with the General Plan Update policies and implementation programs. This would support the goals of the established plans. In addition, Implementation Program 9.B.h would implement the HMP to protect life, safety, and property by reducing the potential for future damages and economic losses that result from natural and manmade hazards. The Emergency Operations Plan would be maintained and periodically reviewed under Policy 9.B.1 and Implementation Programs 9.B.a and 9.B.b.

Therefore, although individual projects could affect emergency response, the General Plan Update would not substantially impair the implementation of an adopted emergency response plan because General Plan Update policies support the goals of these plans through restrictions on development and policies to maintain and update the plans. Adherence to the existing HMP and to General Plan goals and policies and implementation of the Emergency Operations Plan in response to major emergencies would ensure that impacts related to an emergency response plan or emergency evacuation plan would be **less than significant**.

**Mitigation Measures**
No mitigation is required.