## PURPOSE

The purpose of the Safety Element is to reduce or avoid potential hazards to community residents, structures, community facilities, and infrastructure. This element identifies actions needed to manage crisis situations such as earthquakes, fires, and floods. Specific policies and guidance to regulate development in hazard-prone areas (such as floodplains, seismic risk areas, or high fire-danger areas) are included. The objectives of the Safety Element include:

- Reduce risks associated with earthquakes, fires, floods, and other natural and human-caused disasters; and,
- Respond effectively to emergencies.

## SCOPE AND CONTENT

The Safety Element is intended to satisfy the requirements of California planning law, and is a mandatory component of the County's General Plan. Government Code section 65302(g) presents a list of hazards which must be covered by the Element if they pertain to conditions in the county. These hazards include:

- Seismically induced conditions including ground shaking, surface rupture, ground failure, tsunami, seiche, and dam failure;
- Slope instability leading to mudslides and landslides;
- Subsidence, liquefaction, and other geologic hazards;
- Flooding;
- Avalanche;
- Wild land and urban fires; and,
- Evacuation routes.

State law also allows additional issues to be addressed by specific communities. This Safety Element addresses other issues, including mining sites, hazardous material use, and emergency preparedness.

The Safety Element contains goals and policies to reduce the dangers posed by various hazards. These goals and policies will in many cases be related to goals and policies for other General Plan elements, including

the Land Use Element (for instance, the standards for allowable development in flood-prone areas). A well-planned and maintained circulation network is an essential public safety concern. Evacuation routes utilizing the circulation system are also described in the Safety Element. The provision of viable evacuation routes is inextricably linked to the planned circulation system described in the Circulation Element.

## SAFETY CONSIDERATIONS IN AMADOR COUNTY

As in all communities, natural conditions and human activities in Amador County affect the quality of life and safety of residents. Reducing risks associated with these hazards, and preparing for emergency situations is essential to creating and maintaining a safe and healthy environment.

Public health and private property are protected through prevention and emergency preparedness planning. The County has established goals and policies to safeguard community health, and prepare for emergency situations. The sections below briefly describe some of the hazards resulting from natural conditions and human activities in Amador County, and provide context for the goals and policies that follow. The Safety Element includes implementation programs describing specific actions the County will take to protect public safety. In addition, the County's Multi-Hazard Mitigation Plan is adopted by reference as a part of the Safety Element. This plan can be found in Appendix S-1.

### Flood Hazards

Floods can be among the most frequent and costly natural disasters in terms of human hardship and economic loss, and can be caused by a number of different weather events. Floods can cause substantial damage to structures, landscapes, and utilities, as well as endanger life and safety. Public health hazards are also common with flood events that include standing water and wet materials in structures. This can breed microorganisms (including bacteria, mold, and viruses) causing disease, triggering allergic reactions, and damaging materials after the flood dissipates.

Flood risk is greatest in the floodplain located adjacent to a stream channel. Floodplains are illustrated on inundation maps, which show areas of potential flooding and water depths, and most often refer to areas that could be inundated by a 100-year flood (a flood that has a one-percent chance in any given year of being equaled or exceeded). The 100-year flood is the national minimum standard for regulated floodplains through the National Flood Insurance Program (NFIP). The State of California additionally requires flood hazards within the 200-year floodplain to be considered in General Plans. The Department of Water

Resources has prepared maps illustrating the best available 200-year floodplain.

Flood potential can increase through land use and land surface changes. A change in the environment can create localized flooding problems both inside and outside of natural floodplains by altering or confining natural drainage channels. Such changes are most often the result of human activity.

Amador County contains multiple rivers, streams, creeks, and associated watersheds. The county is situated in a region that dramatically drops in elevation from the Sierra Nevada Mountains in the easternmost portion of the county to the central and western portions, where excess rain or snow can contribute to downstream flooding. Flood flows generally follow defined stream channels, drainages, and watersheds. Floods causing severe damage or risk have historically occurred primarily in developed portions of the county. Flooding events generally occur in areas near waterways, and have caused significant damage in the western portion of the county near population centers, such as Jackson, Ione, and Sutter Creek. Figure S-1 illustrates the locations of local, state- and federally-designated flood hazard areas, as required by Government Code Section 65302 (g) (2). Please note that all figures presented in this document illustrate a snapshot of conditions using the best data available in 2009. For current data, please contact the Planning Department.

Inundation can also occur as the result of partial or complete collapse of a dam or impoundment and often results from prolonged rainfall and flooding. The primary danger from dam failure is high velocity flooding of properties located downstream. Numerous dams provide downstream flood protection, water storage, and hydroelectric generation in the county and along its borders. Some dams and their reservoirs are located in steep river canyons. In the unlikely event of structural dam failure, inundation areas of these dams would closely follow stream courses and then broaden once they reach the flat lands located in the west end of the county. Areas subject to flooding from a dam failure would primarily be those located along these streams and drainages. These maps are on file at the County and are incorporated into the General Plan by reference for consideration in land use decisions.

### Fire Hazards and Protection

Risk and vulnerability from wildfire in Amador County primarily result from the combination of dense vegetation and geographic and topographic features which create potential for natural- and human-caused fires. According to the Amador County Fire Reduction Plan, the county has a very high risk to experience catastrophic wildfires. Given the distribution and quantity of wildland vegetation, most of the county is a wildland urban interface (WUI) zone. Figure S-2 illustrates fire threat levels in Amador County.

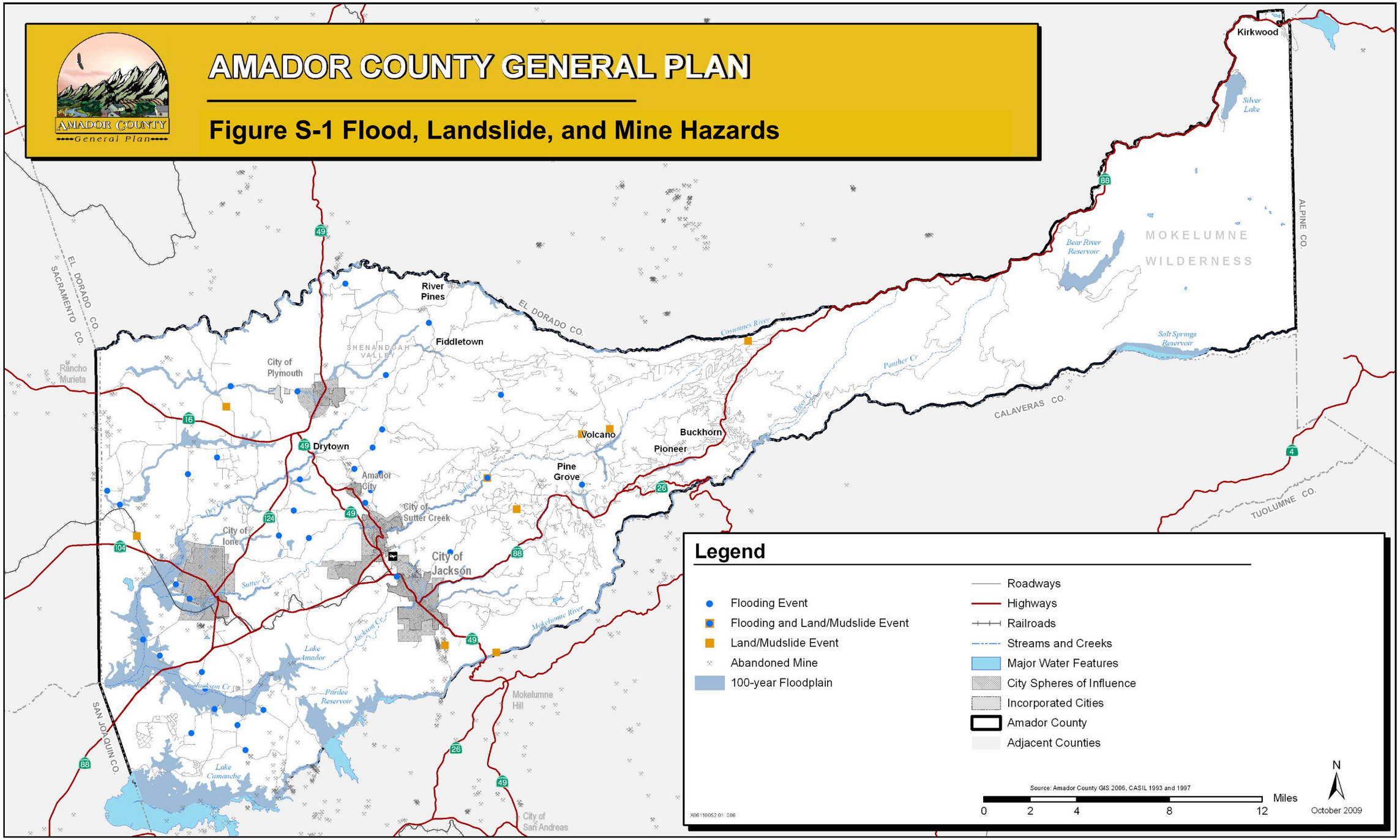
A comparison of Figure S-2, "Fire Hazard Severity Zones" with Land Use Element Figure LU-1, "Land Use Diagram" identifies the location and distribution of land uses in relation to Very High, High, and Moderate Fire Hazard Severity Zones, and State responsibility areas. State responsibility areas cover the majority of Amador County excluding those areas identified in Figure S-2 as federal land (federal responsibility areas) and incorporated cities (local responsibility areas). The General Plan proposed land uses directs development outside of Very High Fire Hazard Severity Zones and State responsibility areas, and into Town Centers (TCs), Regional Service Centers (RSCs), and existing communities with essential public facilities (i.e. hospitals) and adequate infrastructure (i.e. public water systems, fire hydrants). Multiple-family residential and sensitive uses (e.g. care homes, schools, large day care facilities, etc.) are generally located in cities and in the Martell RSC which are not located in Very High Fire Hazard Severity Zones and which have the necessary services and infrastructure these uses require. The General Plan also proposes decreasing the allowable density of development for areas located in Very High Fire Hazard Severity Zones and State responsibility areas, including:

- Decreasing the density in the Amador Pines area (located above Buckhorn) from 1- to 5-acre density to 5- to 20-acre density.
- Decreasing the density in the Camanche North Shore Planning Special Planning Area from 18 dwelling units per acre to one unit per 1- to 5-acre density.
- Decreasing the density in areas near Willow Creek Road (west of Amador City) and Buena Vista (south of Ione) from 1- to 5-acre density to 40-acre density.
- Decreasing the density in areas near Fiddletown, in the Burke Ranch subdivision, and areas north of the City of Sutter Creek and Amador City from 1- to 5-acre density to 5- to 20-acre density.

Fire hazards continue to increase from rapid population growth and residential construction in WUI zone areas. Dense vegetation provides fuel, which when combined with drought, high temperatures, low relative humidity, and high winds, creates prime conditions for frequent and catastrophic fires.

# AMADOR COUNTY GENERAL PLAN

## Figure S-1 Flood, Landslide, and Mine Hazards



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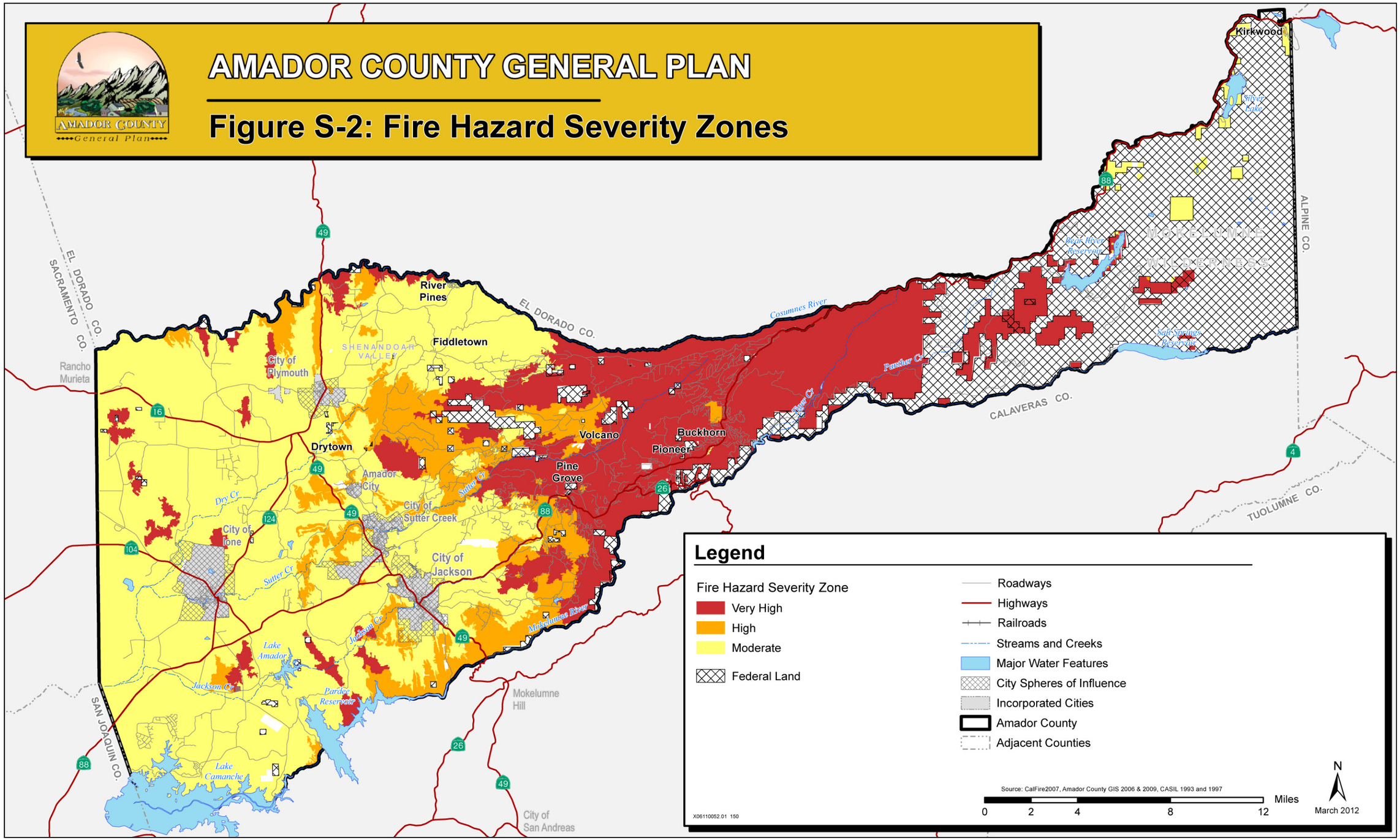
# AMADOR COUNTY GENERAL PLAN

## Figure S-2: Fire Hazard Severity Zones




## Legend

Fire Hazard Severity Zone
- Very High
- High
- Moderate
- Federal Land

- Roadways
- Highways
- Railroads
- Streams and Creeks
- Major Water Features
- City Spheres of Influence
- Incorporated Cities
- Amador County
- Adjacent Counties

Source: CalFire2007, Amador County GIS 2006 & 2009, CASIL 1993 and 1997

0 2 4 8 12 Miles

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March 2012

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Providing adequate water supplies is essential to high-quality fire protection services. In rural areas, large numbers of residents are not located near a water hydrant. As a result, providing water for putting out fires relies on the water carrying capacities of fire engines available to each fire protection district. Most rural areas do not allow for efficient placement of water hydrants and, therefore, rely primarily on the capabilities of fire engines, which are often operated by volunteer fire departments. Over the past decade, wildfires have primarily occurred upcountry. The largest of these was the Power Fire in 2004 which burned approximately 16,800 acres of U.S. Forest Service land and private timberland in the upcountry area east of Dew Drop. Previous to that the largest fire in Amador County was the Rancheria Creek Fire in September of 1961 which burned 34,104 acres in a 3.5 mile wide and 13.5 mile long area starting southeast of Fiddletown. The fire initially burned easterly and then turned westerly toward Ione before circling back to Sutter Creek destroying approximately 10 homes and the gymnasium at the Amador County High School valued at over $243,750 before being stopped. The fire also inflicted over one million dollars in damages to fences, outbuildings, and range land. More recently, in July of 2014, the 4,240 acre Sand Fire located east of State Route 49 along the Cosumnes River, burned approximately 500 acres in Amador County with the remaining acreage being burned in neighboring El Dorado County. In 2015, the Butte Fire burned a total of approximately 70,868 acres. The fire resulted in 475 residences and 343 outbuildings burned, and 45 structures damaged. The Butte Fire also resulted in 2 civilian fatalities and 1 injury. However, only 7 percent (approximately 5,000 acres) of the Butte Fire burn area was located in Amador County; the primary burn area was in Calaveras County. The fire may have been caused by an overhead power line coming into contact with a tree. Additional information regarding wildland fires is available from the Amador County Sheriff's Office of Emergency Services (http://www.co.amador.ca.us/departments/office-of-emergency-services/wildland-fires), the CAL FIRE fire incident database (http://cdfdata.fire.ca.gov/incidents/), and the U.S. National Forest Service Incident Information Center (http://inciweb.nwcg.gov/). ~~However, most~~ As shown in Figure S-2, much of the county is characterized as high- or very high fire threat level.

The U.S. Geological Survey (USGS) and the U.S. Forest Service have developed the Fire Potential Index (FPI), which depicts the wildfire potential for forests, shrublands, and grasslands. FPI maps use satellite-derived information to assess the impact of vegetation on fire danger. The FPI is updated daily to reflect changing weather conditions and is used in daily wildfire decision making. FPI data is available at: http://firedanger.cr.usgs.gov/viewer/viewer.htm. In addition, to monitor the risk of actively burning wildfires, the USGS, in cooperation with the National Interagency Fire Center, developed GeoMAC—an Internet-based mapping tool that provides a national view of current wildfire situations to fire managers and the public. GeoMAC data is available at: http://www.geomac.gov/viewer/viewer.shtml.

### Geologic Hazards

Geologic hazards include seismic (earthquake) hazards, as well as volcanoes, landslides, and avalanches.

### Seismic Hazards

Seismic hazards in Amador County are considered to be relatively minor compared to other areas of California. No Alquist-Priolo Earthquake Fault Zone is located in the county, and areas subject to liquefaction, ground failure, or surface rupture are not identified on State hazard maps. However, ground shaking has been felt in Amador County from earthquakes with epicenters elsewhere. The western portions of the county may experience ground shaking from distant earthquakes on faults to the west and east. Both the San Andreas fault (source of the 6.9 estimated Richter magnitude Loma Prieta earthquake causing damage in the Bay Area in 1989) and the closer Hayward fault have the potential for earthquake events with a greater than 6.7 magnitude.

Another potential source for earthquakes in Amador County is a series of faults associated with the western edge of the Central Valley, recently defined as the Coast Range Central Valley (CRCV) boundary thrust fault system. Various documents define portions of this little known system as the Midland Fault Zone or the Dunnigan Hills fault where the 1892 Vacaville-Winters earthquake occurred. A southern part of the CRCV system may have been the source of the very damaging 1983 Coalinga earthquake.

According to maps recently developed by the Department of Conservation's California Geological Survey, Amador County has potential for ground shaking from earthquakes. The seismic hazard in this area is related to faults on both sides of the California-Nevada border. The eastern, upcountry portion of the county is at greatest risk from earthquakes. The most recent moderately strong earthquake affecting the area occurred on September 12, 1994 near South Lake Tahoe, measuring 6.1 on the Richter scale. Structural damage from ground shaking has not historically been reported in Amador County.

### Subsidence

Subsidence occurs when earth material sinks due to the underlying presence of natural or artificial voids. In Amador County, past mining activity has caused subsidence in some areas. Subsidence can result in serious structural damage to buildings, roads, underground utilities, irrigation ditches, and pipelines. Figure S-1 illustrates the location of some known former mines, which may represent locations where subsidence is likely to occur.

### Landslides, Debris Flows, and Avalanches

Landslides include a wide variety of processes resulting in downward and outward movement of soil, rock, and vegetation. Common names for landslide types include slumps, rockslides, debris slides, lateral spreading, debris avalanches, earth flows, and soil creep. Although landslides are primarily associated with slopes greater than 15 percent, they can also occur in relatively flat areas and as cut-and-fill failures, river bluff failures, lateral spreading landslides, collapse of wine-waste piles, failures associated with quarries, and open-pit mines. Landslides may be triggered by both natural- and human-caused activity.

Debris flows also occur in some parts of the county, generally in the immediate vicinity of drainage swales or steep ravines. Debris flows occur when surface soil in or near steeply sloping drainage swales becomes saturated with water during unusually heavy rains and begins to flow down a slope at a rapid rate. Figure S-1 illustrates the location of historic landslide and debris flow events.

Rainfall, topography, and geology affect landslides and debris flows. Mining, construction, and changes to surface drainage areas also affect landslide potential. Landslides often accompany other natural hazard events such as floods, wildfires, and earthquakes. Landslides can occur either slowly or very suddenly; can damage and destroy structures, roads, utilities, and forested areas; and can cause injuries and death.

Avalanches occur when the weight of new snow increases stress faster than strength of the snowpack develops, causing the slope to fail. Avalanche conditions develop more quickly on steeper slopes and where wind-blown snow is common. The combination of steep slopes, abundant snow, weather, snowpack, and a trigger to cause movement create avalanches. Avalanche-prone areas are found upcountry along SR 88 in the Devil's Gate and Kirkwood areas, where these combinations readily occur. Most avalanches occur during and shortly after storms between January and March. Avalanches generally affect a few snowboarders, skiers, and hikers who venture into backcountry areas during or after winter storms. Avalanches cause road closures, and can damage structures and forests.

## Mining and Hazardous Materials Sites

The Gold Rush of 1849 brought gold mining to Amador County on a large scale, and mining activities have continued to the present day. The county has more than 300 known historic mine locations, along with other hazardous materials storage and release sites. Figure S-1 illustrates the location of historic mine locations. These sites can pose a health risk to residents due to their effects on surface water, groundwater, and/or soils.

The County will use existing hazardous materials inventory information to guide decisions on future development applications, and will prepare an inventory of historic mine locations. The inventory will be used to avoid subsidence hazards as well as hazards posed by exposure to mine wastes.

## Emergency Preparedness

Despite the best efforts of the County and individuals, disasters and emergencies will occur in the future. Amador County's emergency preparedness strategy consists of implementing the disaster response plan, public education, coordinating with other governmental agencies, and identifying evacuation routes. The primary responsibility of the Amador County Sheriff's Office of Emergency Services (OES) is to coordinate the county government's response to disasters or other large scale emergencies. The office is charged with providing the necessary planning, coordination, response support, and communications with all agencies affected by large scale emergencies or disasters. The OES website (www.amadorgov.org/departments/office-of-emergency-services) includes links to the County's plans associated with emergency services and related to the Safety Element, including:

- Amador County Emergency Operations Plan;
- Amador County Long Term Care Facility Evacuation Plan;
- Amador County Hazardous Materials Plan;
- Amador County Auxiliary Communications Plan; and
- Amador County Road Atlas.

Other emergency preparedness and response resources include:

- Amador-El Dorado Unit Strategic Fire Plan (http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1537.pdf);
- A State of California resource for consumers who are seeking information about what they need to do to recover from a disaster (www.rebuildyourlife.ca.gov); and
- Amador Fire Safe Council (www.amadorfiresafe.org).

## RELATED PLANS AND PROGRAMS

Many plans and programs enacted through State and local legislation directly relate to the Safety Element. These plans and programs are administered by agencies with powers to enforce State and local laws.

### California Environmental Quality Act (CEQA) and Guidelines

The California Environmental Quality Act (CEQA) was adopted by the State legislature in response to a public mandate for a thorough environmental analysis of projects that might adversely affect the environment. Public safety hazards are recognized as environmental impacts under CEQA. The provisions of the law and environmental review procedures are described in the CEQA Statutes and the CEQA Guidelines. Implementation of CEQA ensures that during the land use decision-making stage, County officials and the general public will be able to assess safety impacts.

### Landslide Hazard Identification Program

The Landslide Hazard Identification Program requires the State Geologist to prepare maps of landslide hazards within urbanizing areas, including portions of Amador County. Public agencies are encouraged to use these maps for land use planning and to support decisions regarding building, grading and development applications.

### Amador County Code

The County has adopted the most recent sections of the California Building Standards Code (Title 24), including the Uniform Building, Mechanical, Fire, Electrical, and Plumbing Codes, which contain structural requirements for both current and new buildings. These codes are designed to ensure structural integrity during seismic and other hazardous events, and to prevent injury, loss of life and substantial property damage. To protect public safety, construction in Amador County is subject to these structural codes. Amador County Code Chapter 15.30, "Fire and Life Safety Regulations" have been adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in State responsibility areas.

## Amador County Multi-Hazard Mitigation Plan

The Multi-Hazard Mitigation Plan describes the County's actions to reduce or eliminate long-term risk to human life and property from hazards. Hazard mitigation planning is the process through which natural hazards potentially threatening communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies that would lessen the impacts are determined, prioritized, and implemented. The Multi-Hazard Mitigation Plan is incorporated by reference within this Safety Element, and attached to the General Plan as Appendix S-1.

## Fire Hazards and Protection

### Fire Protection Areas and Districts

The U.S. Forest Service (USFS) provides fire protection on federally owned lands (i.e., federal responsibility areas) in Amador County, which primarily include the El Dorado National Forest located in the easternmost portion of the county. CAL FIRE provides fire protection ~~in~~ to federal and local areas through local agreements in addition to all State responsibility areas, which cover the majority of Amador County excluding only federal responsibility areas and local responsibility areas.

Local fire protection services in Amador County are provided by seven separate, but cooperative, districts, which include Amador Fire Protection District, Ione Fire Department, Jackson Fire Department, Jackson Valley Fire Protection District, Lockwood Fire Protection District, Sutter Creek Fire Protection District, and Kirkwood Public Utilities District. These local fire protection districts are responsible for responding to structural fires and wildland fires, as well as providing emergency medical services within their service area.

All of these departments are staffed by volunteer personnel with the exception of CAL FIRE, the USFS, and Mule Creek State Prison. USFS fire engines are only staffed during the wildland fire season and stop operations in the winter and spring months. ~~To assure year round staffing of fire engines,~~ ~~a~~An agreement between Amador County and CAL FIRE provides ~~for staffing of the three State fire stations outside of wildland fire season and~~ for year-round dispatch services to all local government fire departments in Amador County.

### *Amador Fire Protection District*

The Amador Fire Protection District (AFPD) was organized in 1990 by approval of the voters and resolution of the Amador County Board of Supervisors. The District is responsible for emergency fire, rescue, and medical aid service in approximately 85 percent of unincorporated Amador County. AFPD provides services through the efforts of volunteer firefighters and response of firefighters in surrounding fire departments/districts through automatic aid and mutual aid agreements. In addition, AFPD contracts with CAL FIRE for year-round dispatch~~fire protection~~ services to all local government fire departments in Amador County.

The District operates seven fire stations and provides emergency fire, rescue, and medical aid service to the communities and surrounding areas of Amador Pines, Pioneer, Pine Grove, Pine Acres, Volcano, Martell, Drytown, Willow Springs, Fiddletown, River Pines, and the City of Plymouth.

### *Jackson Valley Fire Protection District*

The Jackson Valley Fire Protection District provides fire protection services primarily to an area located in the southwest corner of Amador County north of Lake Camanche and northwest of Pardee Reservoir. The District operates two fire stations.

### *Lockwood Fire Protection District*

The Lockwood Fire Protection District provides fire protection services primarily for the area along Shake Ridge Road, located in north central Amador County and extending from Quartz Mountain Road to the CAL FIRE~~CDF~~ fire station at Dew Drop. The District operates two fire stations.

### *Kirkwood Meadows Fire Department*

The Kirkwood Meadows Fire Department provides fire protection services primarily to the Kirkwood Resort area at the northeastern tip of Amador County. The Department operates one fire station.

### *City Fire Departments*

~~Volunteer f~~Fire departments composed of some paid and volunteer firefighters provide fire protection services to the cities of Ione, Sutter Creek, Plymouth, Amador City, and Jackson.

#### Community Facilities District 2006-1

In 2006, the Board of Supervisors established Community Facilities District (CFD) 2006-1, which provides funding for fire protection services.

Property owners in CFD 2006-1 are responsible for payment of an annual special tax which is used to fund additional service costs for fire protection. Annexation into CFD 2006-1 is a required condition of certain County approvals, including subdivision approvals and some use permits in the unincorporated County.

## ISSUES, GOALS AND POLICIES

The Safety Element addresses natural conditions and human activities that can potentially threaten public health and safety. Natural hazards in Amador County include the potential for flooding, wildland fire hazards, earthquakes and associated hazards, avalanche hazards, and geologic conditions such as unstable soils and landslides. Human-caused hazards include those associated with mining and use of hazardous materials. Understanding these hazards and preparing to deal with them on both an incident-related and ongoing basis are important objectives. The following goals~~,~~ and policies ~~and implementation programs~~ can reduce the risks associated with these hazards, and help the County to prepare for emergency situations.

### Flood Hazards

Flood risk is generally focused on low lying areas near streams and rivers, including Dry Creek, Sutter Creek, and Jackson Creek. Flood risk associated with dam failure is also a factor near rivers and streams. Developed uses are already present within the 100-year floodplain, particularly within incorporated areas of the county.

The County's approach to flood hazard management includes limiting new construction in floodplain areas, requiring floodproofing for structures built in flood-prone areas, and an expressed preference for parks, open space, and other passive uses in flood-prone areas. Essential facilities such as hospitals, emergency shelters, fire stations, and public safety facilities should be located outside flood hazard areas. In addition, both existing and new structures and improvements can be designed differently to reduce stormwater runoff. Possible changes might include increased use of permeable pavement, narrower and smaller streets and parking areas, and low-impact drainage features such as swales and detention or retention basins.

**Goal S-1: Prevent loss of life or property from flooding.**

Policy S-1.1: Direct future development (as defined in "Floodplain Management Regulations" set forth in the Amador County Code) to areas outside the floodway portion of the 100-year floodplain.

Policy S-1.2: Limit development in other areas prone to flooding, including the floodway fringe, other portions of floodplains and inundation areas. Require structures in these areas to incorporate floodproofing measures, including elevation above the 100-year floodplain profile.

Policy S-1.3: Reduce urban runoff and maintain the carrying capacity of floodplains or flood channels. Require provision of on-site retention and detention basins in new development applications as needed to reduce downstream flooding hazards.

Policy S-1.4: Designate agriculture, passive parks, open space, and other low-intensity uses within floodplain areas.

Policy S-1.5: Provide for construction of dams and water retention facilities on agricultural lands to support agricultural land uses, consistent with state and federal law.

### Fire Hazards and Protection

Amador County is at very high risk to experience catastrophic wildfires. Most of the county is considered to be in a WUI zone. Wildfires occurring in the WUI zone pose severe risks to life, property, and infrastructure and are one of the most dangerous and complicated fire situations firefighters encounter.

The County seeks to guide future development toward areas with better fire suppression infrastructure and/or lower fire risk. In addition, the County supports improved fire response and suppression. Reviewing building setbacks, building code requirements, and infrastructure requirements for future development applications are some of the many steps the County will take to ensure wildland fire preparedness does not decline in the future.

**Goal S-2: Reduce fire risks to current and future structures.**

Policy S-2.1: Consistent with state regulations and local code requirements, r~~R~~equire new buildings to be constructed to provide fire-defensible spaces, separated from property lines and other buildings on the same or adjacent properties by adequate building setbacks clear of brush and fuel. Require new buildings in areas of moderate to high fire risk to be constructed using building materials and designs that increase fire resistance.

Policy S-2.2: Guide new development to areas where adequate fire protection, roads, and water service are available to support fire response.

Policy S-2.3: Incorporate fire safety site planning techniques within new development applications in high- or very-high fire risk areas. Encourage building envelope or cluster development techniques to increase defensible areas.

Policy S-2.4: Work with fire districts or other agencies and property owners to coordinate efforts to prevent wildfires and grassfires including consolidation of fuel buildup abatement efforts, firefighting equipment access, and water service provision.

Policy S-2.5: Work with fire districts and other agencies to educate the public regarding fire risks and periods of elevated or extreme risk due to drought or other factors.

**Goal S-3: Maintain or improve fire response times.**

Policy S-3.1: Support efforts by fire districts to obtain adequate funding to provide fire protection at desired levels. Implement impact fees if needed to provide adequate fire service.

Policy S-3.2: Encourage cooperation and regional agreements among fire districts and state and federal fire agencies to maximize fire protection capabilities across the county.

The Implementation Plan sets forth implementation programs to carry out the above goals and policies. These include Programs P-6 (effective county services), P-12 (emergency response), D-1 (development proposal evaluation), D-2 (fire-safe development), D-10 (evacuation planning and routes), C-3 (transportation coordination), C-4 (interagency coordination), and F-3 (fire services funding).

## Geologic and Seismic Hazards

Seismic hazards in Amador County are considered to be relatively minor compared to other areas of California. Ground shaking has been felt from earthquakes with epicenters elsewhere. Subsidence, landslides, and avalanches also pose risks in some areas. The County seeks to reduce future damage from seismic hazards, and to reduce landslides and avalanches by avoiding development practices which steepen slopes or place structures in the path of these phenomena.

**Goal S-4: Protect people and property from seismic hazards.**

Policy S-4.1: Enforce site-specific seismic design category requirements per the California Building Code (CBC) to minimize earthquake damage.

Policy S-4.2: Require minimum setbacks for habitable construction along streams between the stream bank and structure, based upon the susceptibility of the bank to seismic shaking-induced lurching.

Policy S-4.3: Discourage new construction of structures or improvements in or near a seismic risk area or geologic hazard area unless these projects meet design standards to minimize or eliminate seismic risk.

**Goal S-5: Protect people and property from landslides, mudslides, and avalanches.**

Policy S-5.1: Use the development review process to lessen the potential for erosion and landslides. Restrict site grading which steepens unstable slopes.

Policy S-5.2: Limit development in areas with high landslide, mudslide, or avalanche susceptibility.

### Mining and Hazardous Materials Sites

Hazardous materials storage and release sites have the potential to affect public health and safety if human contact with these materials is not minimized or avoided. Mine sites can pose additional risks, including subsidence.

**Goal S-6: Protect people and resources from hazards posed by mining facilities and hazardous materials sites.**

Policy S-6.1: Coordinate with State and federal agencies to limit hazardous materials risks through the land use planning process. Utilize existing County hazardous materials facility information to identify areas of hazardous materials use, and restrict the use of hazardous materials to non-residential and non-sensitive areas.

Policy S-6.2: Locate hazardous materials facilities so as to limit potential hazards related to the proximity of sensitive populations and the distance and routes traveled for local deliveries.

Policy S-6.3: Encourage the use of programs and products to reduce and replace the use of hazardous materials where feasible.

Policy S-6.4: Develop a map and inventory of former mine locations to alert property owners to areas with potential subsidence issues.

Policy S-6.5: Work with other agencies to limit the effects of former mining activities.

## Public Safety and Emergency Preparedness

No amount of planning or preparation can avoid all emergency situations. Amador County bears a risk of being affected by a variety of natural and human-caused disasters. Citizens and first responders must be prepared to react to such an emergency.

**Goal S-7: Respond appropriately and efficiently to natural or human-caused emergencies.**

Policy S-7.1: Maintain a disaster response plan to coordinate response actions.

Policy S-7.2: Continue to coordinate with other local public safety and law enforcement agencies to ensure effective emergency response.

Policy S-7.3: Work with other agencies to designate evacuation routes for various natural or human-caused emergencies.

Policy S-7.4: Maintain the operational integrity of essential public facilities during emergencies, including flood emergencies.