Chapter 10: Safety

Introduction and Setting

The purpose of the Safety Element is to reduce the potential short and long-term risk for loss of life, injuries, damage to property, and economic and social dislocation resulting from natural and human-caused public safety hazards including flooding, geologic and seismic hazards, fire hazards, droughts, severe weather, and climate change. Other potential safety hazards, such as airport operations and the transportation of hazardous materials arise from the transport of goods and people. The Safety Element addresses hazards and hazardous materials of the present (transportation of hazardous materials, industrial spills, etc.) and historic remnants (legacy of historic mining; mineshafts and tailings). Each of these hazards has particular characteristics that affect future development of the County. Some safety hazards can be minimized with emergency planning, while other hazards are reduced by development standards and land use planning. The Safety Element identifies areas where private and public decisions on land use need to be responsive to potentially hazardous conditions. It also serves to inform individuals, firms and public agencies of Nevada County's policies regarding appropriate levels and locations of public services, such as Sheriff's and Fire protection.

The Safety Element addresses the potential and existing hazards recognized and experienced in Nevada County using the following categories:

- Emergency Preparedness (EP)
- Geologic Hazards/Seismic Activity (GH)
- Flood Hazards (FH)
- Airport and Military Airspace Hazards (AH)
- Hazardous Materials (HM)
- Mining Hazards (MH)
- Public Safety Services and Facilities (SF)
- Fire Hazards and Protection (FP)
- Severe Weather Hazards (WH)
- Climate Change Resiliency and Mitigation (CC)
- Environmental Justice and Vulnerable Populations (EJ)

Additional discussion related to safety is contained within the following chapters of the Nevada County General Plan: Chapter 1, Land Use; Chapter 3, Public Facilities and Services; Chapter 4, Circulation; Chapter 6, Open Space; Chapter 8, Housing; Chapter 9, Noise; and Chapter 17, Mineral Management.

Statutory Requirements:

The Governor's Office of Land Use and Climate Innovation

The primary responsibility of the Governor's Office of Land Use and Climate Innovation (previously Office of Planning and Research) is working with local jurisdictions on topics impacting land use planning, climate, housing opportunities, and community empowerment. The Governor's Office of Land Use and Climate Innovation is designated in statute as the State's comprehensive planning agency and as such provides oversite and guidance on local general plan preparation.

California law requires General Plans address public safety as one of the eight mandatory elements. The Safety Element must include mapping of known seismic and other geologic hazards. It must also address evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

Federal Emergency Management Agency

The Federal Emergency Management Agency coordinates the Federal government's role in preparing for, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made. The Disaster Relief Act of 1974 created the system and the agency by which a presidential disaster declaration of an emergency triggers financial and physical assistance. In order to be eligible for Federal disaster assistance from the Federal Emergency Management Agency under the Disaster Mitigation Act of 2000, Nevada County is required to update the Local Hazard Mitigation Plan every five (5) years.

The Nevada County Office of Emergency Services

The Nevada County Office of Emergency Services is responsible for maintaining and updating Nevada County's Local Hazard Mitigation Plan (LHMP). Hazard Mitigation Planning is the use of long-term and short-term policies, programs, projects, and other activities to minimize the loss of life, injury, and property damage that can result from a disaster. Communities, residents, and businesses across the United States have been faced with continually increasing costs associated with natural and human-caused hazards.

The Local Hazard Mitigation Plan is a critical planning tool that identifies community risks based on historical experience and data, modeling of frequency and magnitude of disasters projected, and develops mitigation strategies to build resiliency, avoid impacts, adapt to or mitigate risks. The Local Hazard Mitigation Plan is the implementing tool of Nevada County's General Plan and specifically, the Safety Element. Whereas the Safety Element informs, guides and directs land use decisions to avoid or reduce risks from hazards, the Local Hazard Mitigation Plan provides the measures by which potential hazards and hazardous conditions are to be mitigated.

The Office of Emergency Services in coordination with local, County, State, Federal and non-profit partners have the responsibility to also prepare the Wildfire Hazard Reduction and

Preparedness Plan. The objective of the plan is to identify and prioritize pre- and post-fire management strategies and tactics to reduce loss of life, property, and natural resources.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible, in partnership with local jurisdiction, for fire planning in State Responsibility Areas. State Responsibility Areas is a legal term defining the area where the State has financial responsibility for wildland fire protection. Incorporated cities (Local Responsibility Areas) and Federal ownership (Federal Responsibility Areas) are not included. As part of the State's Fire and Resource Assessment Program, CAL FIRE is responsible for mapping areas of significant fire hazards based on fuels, terrain, weather and other relevant factors. The areas, which are referred to as Fire Hazard Severity Zones, relate to the prescription of various mitigation strategies to reduce risk associated with wildland fires. The State Board of Forestry and CAL FIRE are responsible for drafting a comprehensive document for wildland fire protection in California. Nevada County Fire Departments and CAL FIRE are responsible for implementing the California Fire Plan in Nevada County. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative inter-dependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis. Nevada County is one of six contract counties that maintain a contractual relationship with CAL FIRE.

Senate Bill 1241 revises the Safety Element requirements for State Responsibility Areas and Very High Fire Hazard Severity Zones. Local jurisdictions are required to review and update, as necessary, their Safety Element to address the risk of fire in State responsibility areas and Very High Fire Hazard Severity Zones. The draft Safety Element (or amendment of the Safety Element) of a County or city shall be submitted for review to the State Board of Forestry and Fire Protection at least 90 days prior to adoption or amendment. CAL FIRE is responsible for reviewing the draft Safety Element or draft amendment to ensure that specific provisions found in the most recent Office of Land Use and Climate Innovation Fire Hazard Planning document are considered where appropriate, and that the Safety Element includes the following:

- Information regarding fire hazards, including, but not limited to all of the following:
    - Fire hazard severity zone maps;
    - Historical data on wildfires available from local agencies or reference to where the data can be found;
    - Information about wildfire hazard areas that may be available from the United States Geological Service;
    - General location and distribution of existing and planned uses of land in very high fire hazard severity zones; and
    - Local, State, and Federal agencies with responsibility for fire protection, including special districts and local offices of emergency services.

- A set of goals, policies, and objectives based on the information identified for the protection of the community from the unreasonable risk of wildfire.

- A set of feasible implementation measures designed to carry out the goals, policies, and objectives based on the information identified, including but not limited to:
    - Avoiding or minimizing the wildfire hazards associated with the new uses of land;
    - Locating, when feasible, new essential public facilities outside of high fire risk areas or identifying construction methods or other methods to minimize damage if these facilities are located in a State Responsibility Areas or Very High Fire Hazard Severity Zone;
    - Designing adequate infrastructure if a new development is located in a State Responsibility Area or in a Very High Fire Hazard Severity Zone, including safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression; and
    - Working cooperatively with public agencies with responsibility for fire protection.

- Upon each revision of the housing element, the planning agency shall review, and if necessary, revise the safety element to identify new information that was not available during the previous revision of the Safety Element.

California Geological Survey Division of the Department of Conservation

The California Geological Survey's mission is to provide products and services about the State's geology, seismology and mineral resources, including their hazards, which affect the health, safety and business interests of the people of California. The programs operated by the California Geological Survey include responsibility for providing technical information, advice and production of maps that reflect landslide hazards, seismic hazards (earthquake faults), geological, mineral resources and hazards, and tsunamis.

The California Geological Survey provides local lead agencies with comments on geological issues associated with the review of various types of environmental documents including local General Plans. These comments are used by local agencies to make land use decisions. At least 45-days prior to adoption or amendment of the Safety Element, each County or city shall submit to the California Geological Survey Division of the Department of Conservation one copy of a draft of the Safety Element or amendment and any technical studies used for developing the safety element. The California Geological Survey will review the drafts and determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency.

Emergency Preparedness (EP)

Land Use Influences

The ability to prepare for, react to and recover from a major disaster is dependent upon many factors. Land use is one of the most critical and often over-looked factors in emergency preparedness. Both existing land use and the future, planned land use directly influence the pattern of development across a landscape. Land use influences the distribution, location, density, and intensity of development and it directs the type of uses whether it be residential, commercial, industrial, recreation, open space, or agriculture. How land uses are dispersed across the landscape

directly effects the layout of roads, utility infrastructure, location of essential public facilities, population centers and areas to be protected in open space. Emergency preparedness should be a consideration when establishing land use and zoning designations and again when discretionary development permits are required of a new or modified development. For example, it needs to be assured that development is not creating capacity issues for existing infrastructure that might affect water availability in a certain community sector for firefighting or capacity of roads to accommodate emergency vehicle ingress and evacuation egress. Section 2, Chapter 1 of the General Plan lays out goals, policies and maps that establish the desired land use pattern that balances future growth with other factors. (Link of Nevada County GIS Land Use Maps: https://experience.arcgis.com/experience/45d30af79b1e45f792844b897a45131a).

Emergency Plans and Guides

In the event of a major disaster, it is in the interest of the Federal government to ensure that local governments have made efforts toward minimizing disasters. The Disaster Mitigation Act of 2000 (DMA) requires that each State develop a hazard mitigation plan in order to receive future disaster mitigation funding following a disaster. The DMA also requires the development of local or County plans for that particular County to be eligible for post-disaster mitigation funding. The purpose of these requirements is to encourage State and local government to engage in systematic and nationally uniform planning efforts that will result in locally tailored programs and projects that help minimize loss of life, destruction of property, damage to the environment and the total cost of disasters before they occur.

The Nevada County Office of Emergency Services (OES) has developed a Local Hazard Mitigation Plan (LHMP) for Nevada County to meet the requirements of the DMA on behalf of the County, its incorporated cities and towns and participating districts. Approved by the Nevada County Board of Supervisors, the LHMP enables Nevada County to be eligible for future post-disaster mitigation funding. The LHMP recognizes the threat of natural and man-made disasters and hazards that are posed to people and property within Nevada County, and that undertaking hazard mitigation actions delineated in the LHMP reduces the potential for harm to people and property from future disaster and hazardous incidents. The LHMP identifies a list of potential hazards (Hazards of Concern) with each hazard evaluated for severity, vulnerability, and exposure, and then listed in order of perceived likely impact. The hazards listed in the LHMP are: Avalanche, Dam Failure, Drought, Earthquake, Extreme Cold, Extreme Heat, Flood, Hazardous Materials Release, Landslide, , Volcano, Wildfire, and Winter Storm.

The Nevada County Operational Area Emergency Operations Plan (EOP) prepared by the OES and adopted by the Board of Supervisors, delineates responsibilities of First Responders and other response support organizations, e.g., Office of Emergency Services, Department of Public Health, Environmental Health., etc., for natural disasters and manmade incidents in or affecting Nevada County.

Community Emergency Preparedness Guides which are specific to individual communities in Nevada County provide the basic information for residents to be prepared for potential disaster. If government funds are utilized to develop such a guide, it must be coordinated and approved by the Nevada County Office of Emergency Services, the local fire district, and the local law enforcement

agency. Emergency Preparedness Guides and related information prepared by Nevada County OES have been placed in the lobby of the Nevada County Government Building (Eric Rood Administrative Center) in Nevada City for free distribution to the public.

Emergency Notification System

The Emergency Communications Network, Nevada County Alert and Warning System, used by Nevada County (and other Counties and Cities in California), is a mass notification system. The service agreement includes high-speed notification technology allowing Nevada County to more effectively communicate time sensitive messages and includes the following provisions:

- Access to a web-based alert notification system
- Ability to access and activated the service via phone, email, text alerts
- Integration and geocoding of supplied 911 database

Evacuation Planning

Evacuations normally occur due to incidents or disasters that cause large numbers of people to flee the area in all types of vehicles over all roads regardless of size or legal restrictions. The evacuation is marked by a sense of panic among the evacuees as stress and fear levels are high. Individuals, groups, and families, including pets, evacuate as quickly as possible, and usually only after finding themselves away from their residence do they consider food, water, clothing, medical care, shelter or Right-of-Entry (ROE) form (to allow for recovery activities to occur on private property).

During an evacuation the responsible jurisdictional law enforcement agency, under the direction of the incident commander, is responsible for directing and facilitating the continued movement of evacuees. Fire departments and fire protection districts may be requested to assist law enforcement with traffic control. The Office of Emergency Services coordinates with the American Red Cross and the County Department of Social Services to establish temporary shelters, if requested to do so by the Incident Commander.

Evacuation plans during an incident are developed in real time and are dependent on the type of incident, the urgency of the impending threat, and the direction of threat. The public may be notified using door-to-door notification methods; local media via radio, television, internet; and/or activation of the emergency alert notification system.

Routes designated on Nevada County General Plan Land Use Maps as interstates, freeways, highways, and other principal arterial routes are considered primary evacuation routes. Such routes provide the highest levels of capacity and contiguity and serve as the primary means of egress during an evacuation from the County and ingress for emergency personnel. Routes designated on the General Plan Land Use Maps as minor arterial and major collector routes are considered secondary evacuation routes. These routes supplement the primary evacuation routes, and provide egress from local neighborhood and communities. Local roads are roads that primarily serve as access to and from individual properties. Local roads serve as the first leg of the evacuation route that many Nevada County residents will take. The majority of local road miles in Nevada County are privately owned and many of these roads pre-exist the current road and fire standards. Current

standards that address width, slope, vegetation management and access road gates are found in Chapters 8 through 10 of Title 16 of the Nevada County Code.

Pursuant to the California Office of Land Use and Climate Innovation, all California cities and counties shall revise the Safety component of the General Plan to meet the evacuation mandates set by SB 99 (2019) and AB 747 (2019). Collectively, these regulations require local government jurisdictions to include in their Safety plans both residential developments in all areas designated as a hazard area lacking a minimum of at least two emergency evacuation routes and the details of evacuation routes, including their capacity, security, and functionality for various emergency circumstances and events (2024 Nevada County OES Evacuation Study). In February of 2024, the Nevada County Office of Emergency Servies (OES) completed the *2024 Nevada County Evacuation Study* which includes:

1. Mapped evacuation routes and tailored strategies for the five (5) most evacuation-vulnerable areas in Nevada County;
2. An Analysis of fire behavior and traffic dynamics essential for effective evacuation planning; and,
3. Recommendations for roadway improvements and wildfire mitigation projects to enhance evacuation route safety and capacity.

The *2024 Nevada County Evacuation Study* provides more detailed information regarding each of the five (5) most vulnerable areas for evacuation which can be viewed in Sections 5 and 6 of the Evacuation Study for Emergency Evacuation Assessment information, and the Findings and Recommendations associated with the Evacuation Plan: 2024 Nevada County Evacuation Study. These Findings and Recommendations from the *2024 Nevada County Evacuation Study* have been incorporated by reference into the Safety Element.

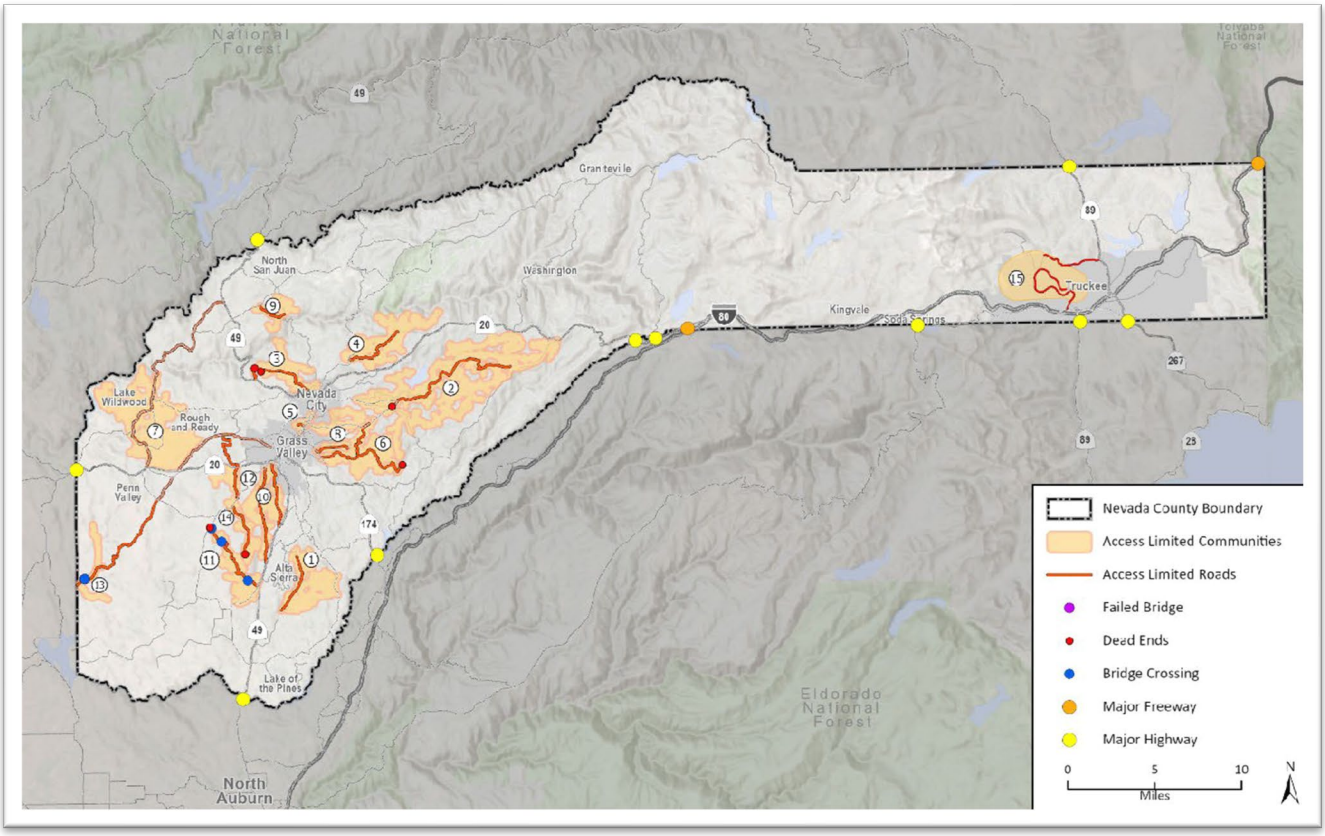


Figure 10.1: Areas of Limited Ingress/Egress

Additionally, in May of 2022, the Nevada County Transportation Commission completed the *READY Nevada County Extreme Climate Event Mobility and Adaptation Plan*, which provides a detailed assessment regarding evacuation planning and emergency preparedness in the event of an emergency by utilizing proactive evacuation measures, as shown in Figure 10.1 provided above. Proactive measures include both planning strategies (such as conducting studies to understand routing and signage improvements) and operationalizing mitigation and educational tactics. Ready Nevada County's Evacuation Route Pre-Planner and Truckee's evacuation routes by neighborhood map both provide a solid foundation for disseminating routing information to residents, while a number of existing emergency communications tools offer further potential for resident preparedness. These proactive planning strategies include:

1. Solidify evacuation protocols and dissemination of routing information to residents;
2. Develop microsimulation to identify additional improvements to evacuation routes;
3. Develop mitigation strategies to address challenges posed to identified evacuation routes;
4. Outline emergency procedures and placement of permanent signage to facilitate evacuations;
5. Upgrade outdated emergency communications infrastructure;
6. Develop an emergency evacuation plan;
7. Fund improvements to eliminate evacuation pinch points on major state highways; and,
8. E.8: Study development of local ordinance to keep rural evacuation routes open.

The READY Nevada County Extreme Climate Event Mobility and Adaptation Plan has been incorporated by reference into the Safety Element and includes additional information regarding evacuation planning and emergency preparedness.

Nevada County Evacuation Notification Categories

Immediate Evacuation Order: Requires the immediate movement of people out of an affected area due to an imminent threat to life. Choosing to stay could result in loss of life. Staying may also impede the work of emergency personnel. Due to the changing nature of the emergency, this Immediate Evacuation Order may be the only warning that people in the affected area(s) receive.

Evacuation Warning: Alerts people in an affected area(s) of potential threat to life and property. People who need additional time should consider evacuating at this time. An Evacuation Warning considers the probability that an area will be affected and prepares people for a potential Immediate Evacuation Order.

Shelter-In-Place: Advises people to stay secure at their current location by remaining in place as evacuation will cause a higher potential for loss of life.

Though not a specific evacuation notification category, rescue services are also performed by Nevada County first responders. Rescues include emergency actions taken within the affected area to recover and remove injured or trapped citizens. Responders have specific training and personal protective equipment necessary to accomplish the mission i.e., hazardous materials spill, swift-water and avalanche rescues, etc. Boundaries of the area(s) where rescue are planned are identified on the incident map, which includes a notification that entry is restricted to rescue workers only.

Geologic Hazards / Seismic Activity (GH)

Avalanches

Avalanche hazard areas are generally located on high, mountainous slopes and terrain at elevations above 7,000 feet. The most important factor necessary to release an avalanche is heavy snowfall. A rapidly increasing snow layer is unable to stabilize or bond with the old layer of snow or the ground below it, so that after a certain amount of time the new snow layer will simply slide off as an avalanche.

Four avalanche hazard zones are defined, ranging from no hazard to high hazard. High hazard areas are those where avalanches that could damage standard wood-frame structures and/or bury automobiles are expected to occur with a probability of one chance in twenty per year. Identified high hazard areas within Nevada County include portions of the Donner Lake, Tahoe-Donner, and Soda Springs areas.

Landslides, Debris and Mud Flows

Landslides, debris and mud flows can be defined as an event in which the surface mass of slope-forming earth move outward and downward from their underlying and stable floors in response to

the force of gravity. Unstable or potentially unstable slopes are those areas susceptible to slides, falls, creeps, or flows. Topography, climate, geology, and hydrology are factors contributing to slope instability. The degree of severity of these factors and their interactions is what determines potential hazard. Although slope movements can occur in any type of rock material, certain bedrock formations exhibit a high susceptibility to such movement. This type is found in the central portion of the County. However, most of the County's soils are underlain with dense bedrock formations and lack the characteristics contributing to landslide susceptibility.

Triggers such as an earthquake, vegetation removal (potential results from a wildfire or development), heavy rainfall and human activities can set a landslide in motion. Mining is a human activity that can greatly increase the potential of a landslide. Nevada County contains many historic hydraulic mining sites, one of which, located northeast of Nevada City, is an area of over 20,000 acres. Because of the extreme methods used in hydraulic mining to "wash away" hillsides in the mid to late nineteenth century, the remaining slopes are very steep and are capped by very expansive clay soils. The result is that these areas are extremely prone to damaging landslides. In addition to presenting risks to human life and property, landslides also present risks to the integrity of infrastructure such as water, sewer, gas lines and transportation corridors. (For more Nevada County landslide and debris flow data refer to the Nevada County Local Hazard Mitigation Plan, Part 2, Chapter 14).

Earthquakes

California is seismically active because of movement of the North American Plate, east of the San Andreas Fault, and the Pacific Plate to the west, which includes the state's coastal communities. The transform (parallel) movement of these tectonic plates against one another creates stresses that build as the rocks are gradually deformed. The rock deformation, or strain, is stored in the rocks as elastic strain energy. When the strength of the rock is exceeded, rupture occurs along a fault. The rocks on opposite sides of the fault slide past each other as they spring back into a relaxed position. The strain energy is released partly as heat and partly as elastic waves called seismic waves. The passage of these seismic waves produces the ground shaking in earthquakes. The State Division of Mines and Geology indicates that increased earthquake activity throughout California may cause tectonic movement along currently inactive fault systems. Determining if a fault is "active" or "potentially active" depends on geologic evidence, which may not be available for every fault. Most seismic hazards are located on well-known active faults. However, inactive faults, where no displacements have been recorded, also have the potential to experience displacement sometime in the future.

According to the U.S. Geological Survey, Nevada County falls within all three "Maximum Expectable Earthquake Intensity" severity zones. The western half of the County is in the low intensity zone, the middle quarter is in the moderate zone and the eastern quarter is in the high intensity zone, as shown in Figure 8-4 of the Nevada County Master Environmental Inventory (1991). Western Nevada County does experience ground shaking from distant major to great earthquakes on faults to the west and east. For example, both the San Andreas Fault and the Hayward Fault located to the west have the potential for experiencing major events. The potential for an earthquake that affects Nevada County is uniform across the entire county. However, the potential intensity of any given earthquake varies with the geology across the county, specifically

in the soil types. Soil conditions greatly affect how an earthquake is felt at the ground surface. Soil liquefaction occurs when water-saturated sands, silts or gravelly soils are shaken so violently that the individual grains lose contact with one another and float freely in the water, turning the ground into a pudding-like liquid. Building and road foundations lose load-bearing strength and may sink into the ground. The Polaris fault is a 35-km-long (22-mile), active, right-lateral strike-slip fault located near Truckee, California, discovered in 2009 via LiDAR, that poses a significant hazard to the Lake Tahoe/Reno region. It is capable of generating magnitude 6.4–6.9 earthquakes and lies near the Martis Creek Dam. The Dog Valley fault (DVF) is an active, left-lateral strike-slip fault near Truckee, California, responsible for a 6.0 earthquake on September 12, 1966. It represents a significant hazard to the region, as its rupture zone passes near the Stampede and Boca dams, posing a risk of catastrophic flooding to Reno, NV. Please see Table 10.1 provided below from the 2025 Nevada County LHMP for earthquake events in Nevada County from 2017-2023.

Event Date	Declaration or Proclamation Number	Nevada County Included in Declaration	Location Impacted	Description
May 3, 2017	N/A	N/A	9km NW of Truckee	A magnitude 2.5 earthquake centered 5.6 miles northwest of Truckee was felt but no significant impacts were reported.
February 21, 2018	N/A	N/A	12km North of Tahoe Vista	A magnitude 2.9 earthquake centered 7.4 miles north of Tahoe Vista was felt but no significant impacts were reported.
June 26, 2018	N/A	N/A	4km East of Truckee	A magnitude 2.6 earthquake centered 2.5 miles east of Truckee was felt but no significant impacts were reported.
June 7, 2019	N/A	N/A	14km North of Kings Beach	Magnitude 2.8 and 2.6 earthquakes centered 8.7 miles north of Kings Beach were felt but no significant impacts were reported.
October 3, 2019	N/A	N/A	19km west of Truckee	A magnitude 2.1 earthquake centered 11.8 miles west of Truckee was felt but no significant impacts were reported.
May 13, 2020	N/A	N/A	16km West of Truckee	A magnitude 2.5 earthquake centered 9.9 miles west of Truckee was felt but no significant impacts were reported.
June 11, 2020	N/A	N/A	15km NW of Truckee	A magnitude 2.8 earthquake centered 9.3 miles northwest of Truckee was felt but no significant impacts were reported.
July 21, 2020	N/A	N/A	15km NW of Truckee	A magnitude 2.6 earthquake centered 9.3 miles northwest of Truckee was felt but no significant impacts were reported.
January 11, 2021	N/A	N/A	8km north of Truckee	A magnitude 2.6 earthquake centered 5 miles north of Truckee was felt but no significant impacts were reported.
June 23, 2021	N/A	N/A	24km east of Truckee	A magnitude 3.3 earthquake centered 14.9 miles east of Truckee was felt but no significant impacts were reported.
January 30, 2022	N/A	N/A	4km east of Truckee	A magnitude 2.2 earthquake centered 2.5 miles east of Truckee was felt but no significant impacts were reported.
April 26, 2022	N/A	N/A	4km east of Truckee	A magnitude 2.7 earthquake centered 2.5 miles east of Truckee was felt but no significant impacts were reported.
March 11, 2023	N/A	N/A	14km north of Kings Beach	Magnitude 3.0 and 2.6 earthquakes centered 8.7 miles north of Kings Beach were felt but no significant impacts were reported.
September 6, 2023	N/A	N/A	Floriston	A magnitude 1.1 earthquake centered in Floriston was felt but no significant impacts were reported.
September 7, 2023	N/A	N/A	Truckee	A magnitude 1.4 earthquake centered in Truckee was felt but no significant impacts were reported.

Table 10.1: Earthquake Events in Nevada County (2017-2023)

The entire general building stock of the county is exposed to the earthquake hazard. Overall, industrial buildings in the County are at highest risk with moderate damage or greater predicted for 8.4 percent of the County's industrial building stock for the 100-year earthquake and 30.6 percent for the Polaris scenario event. Another key factor in degree of vulnerability is age of facilities and infrastructure, which correlates with building standards in place at times of construction. Lake of the Pines, Grass Valley, Nevada City, Penn Valley, Cedar Ridge, Lake Wildwood, Rough and Ready, and North San Juan are the communities located in the low intensity zone. Of these communities, Grass Valley, North San Juan, Rough and Ready and Nevada City are those which have structures of un-reinforced masonry buildings in their older neighborhoods and commercial districts. While possible, it is not expected that normal seismic activity in this area would result in significant damage. The Town of Truckee is the major community of Nevada County located in the high intensity zone. Truckee is similar to Nevada City and Grass Valley in terms of the location of un-reinforced masonry buildings being located in the historic portions of town and the commercial district. Due to the presence of both the Polaris Fault and Dog Valley Fault, the Lake Tahoe/Reno region has the potential to experience larger earthquake related impacts in these areas.

Historically, major earthquakes have not been an issue for Nevada County. Minor earthquakes have occurred locally, and major earthquakes have been felt locally; however, the previous earthquake history has not shown these structures to be at significant risk during normal events. (Nevada County Earthquake data is located within the Nevada County Local Hazards Mitigation Plan, Part 2, Chapter 9). Information on previous earthquake occurrences in the County was used to calculate the probability of future occurrence of such events, as summarized in Table 9-4 below. Based on historical records and input from the Planning Team, the probability of occurrence for earthquake in the County is considered "occasional." The potential direct impacts of climate change on earthquake probability are unknown. However, climate change can increase the risk of cascading hazards related to earthquakes (Cal OES 2023a). Please see Table 10.2 provided below from the 2025 Nevada County LHMP for the probability of future earthquake events in Nevada County.

Hazard Type	Number of Occurrences Between 1950 and 2023	Average Number of Years Between Occurrences	Annual Probability of Occurrence
Earthquake	19	3.9	26%

Source: (USGS n.d.-b)

Notes: The number of occurrences is restricted to earthquakes with epicenters within Nevada County with a magnitude greater than 2.5.

Table 10.2: Probability of Future Earthquake Events in Nevada County

Subsidence

Land subsidence in Nevada County has not been quantified. However, the California Department of Conservation GIS data identifies 366 potential mine sites in Nevada County. These features may or may not be significant in the level of risk they pose (additional information on hazards posed by mining operation remnants can be found below under Mining Hazards).

In addition to mines, Nevada County is at risk to subsidence from karst, which are topographic features (surficial and/or subterranean) formed by the dissolution of rocks. Closed depressions, sinking streams and cavern openings are commonly referred to as karst. For example, in January of 2017, a karst opened up in Grass Valley. The sinkhole that resulted was seven stories deep and 80 feet in diameter when it first formed and occurred when a 7.5 foot-diameter underground culvert for Little Wolf Creek failed.

A cause for subsidence can also be related to the drawdown of groundwater through excessive pumping. Fine-grained sediments (clays and silts) within an aquifer system have been found to be one of the main causes. When fine-grained sediments are originally deposited, they tend to be deposited in random orientations with a lot of interstitial space to store water. However, when ground water levels decline to historically low levels, the randomly oriented sediments are rearranged into stacks with little interstitial space to store water and the results are subsidence.

Flood Hazards (FH)

Flooding

Flooding is the rising of and overflowing of a body of water onto normally dry land. Nevada County historical data reflects that floods are one of the most frequent natural hazards impacting the County. Historically, portions of Nevada County have always been at risk to flooding because of its high annual percentage of rainfall, heavy snowfall in the winter, and the number of watercourses that traverse the County. Flooding events have caused severe damage in the very eastern and western portions of the County but are less of a threat within the center of the County. Primarily due to the significant east to west elevation change in the western part of the County, most of the heavy storm rainfall moves quickly out of the watershed. In general, flood hazard areas are generally confined to the areas adjacent to the County's rivers and streams.

Flooding affecting Nevada County normally occurs when heavy rainfall combines with unseasonably warm temperatures that begin a premature melt of the snow pack. Floods can cause losses to human life, structures and other improvements, natural and cultural resources, the quality and quantity of the water supply, assets such as timber, range and crop land, recreational opportunities, and economic losses. Flooding is most dramatically seen on the Yuba River with its steep canyon walls and the Truckee River with its smaller river channel. The Bear River, because of its lower elevations and shallow riverbed, tends to be impacted more by heavy rain over an extended period. The primary areas within Nevada County that are subject to localized flooding are shown below in Figure 10.1.

Table 10.3: Primary Areas Subject to 100-Year Flooding Events

Eastern County	*Western County*
Truckee River*	South Fork Yuba River
South Fork Prosser Creek	Greenhorn Creek

North Fork Prosser Creek	Deer Creek
Summit Creek*	Wolf Creek
Trout Creek*	Little and South Forks of Wolf Creek*
Little Truckee River	Squirrel Creek (and tributaries) *
Donner Creek*	Clear Creek
South Fork Yuba River	Bear River

*Detailed flood hazard information is provided by the Flood Insurance Study for the unincorporated areas of Nevada County, California, Community Number -060210, by FEMA, revised February 5, 1997.

The Federal Emergency Management Agency (FEMA) provides guidance for floodplain management. FEMA manages the National Flood Insurance Program, which provides insurance to communities that participate in the program, and works with State and local agencies to adopt floodplain management policies and flood mitigation measures. Nevada County has been a participating community in the National Flood Insurance Program since January 1, 1983. Nevada County's Floodplain Management Regulations are contained in Section 12.04.210 of the Nevada County Code, which was updated in 2009. Additionally, the Nevada County Local Hazard Mitigation Plan contains a completed assessment of flooding hazards, flood hazard mapping and recommended flood hazard mitigations.

A key element of the National Flood Insurance Program is the identification of floodplain boundaries which are depicted on the Federal Emergency Management Agency Flood Insurance Rate Maps. The concept that a 100-year flood determines a flood event is a central component in Flood Insurance Rate Maps mapping. The 100-year flood represents a flood event that is likely to occur once in every 100 years, or in other words, has a 1 percent chance of occurring in a given year. Areas prone to be impacted by 100-year flood events are identified on the National Flood Insurance Program as Special Flood Hazard Zones (Zones A, AE, AO and AH). Federal flood insurance is required for any structure within a Special Flood Hazard Zone and for any property that has a Federally insured loan.

Dam Failure

Dam failure is another form of flood hazard. Failure can occur as a result of manmade or natural causes. Such causes include improper siting, structural design flaws, erosion of the face or foundation, earthquakes, massive landslides, and rapidly rising flood waters due to a severe storm event(s). According to data from California Department of Resources, Division of Safety of Dams, there are fifty-six (56) dams in Nevada County under their jurisdiction. The Division of Safety of Dams classifies four categories for Downstream Hazard Potential:

- Extremely High Hazard: Expected to cause considerable loss of human life or would result in an inundation area with a population of 1,000 or more.
- High Hazard: Expected to cause loss of at least one human life.
- Significant Hazard: No probability of loss of human life, however, can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts.

- Low Hazard: No probability of loss of human life and low economic and environmental losses. Losses are expected to be principally to the owner's property.

Of the fifty-six (56) jurisdictional dams in Nevada County, there are 27 high hazard; 1 significant hazard; and 28 low-hazard dams. The California Department of Water Resources, Division of Safety of Dams has jurisdiction over impoundments that meet certain capacity and height criteria. Embankments that are less than 6 feet high and impoundments that can store less than 15 acre-feet are non-jurisdictional. Additionally, dams that are less than 25 feet high and impound up to 50 acre-feet are non-jurisdictional.

Jurisdictional Dams have filed dam inundation plans with the State of California, the appropriate Federal agency and the County. There are populated areas within the inundation zone of several of these dams; others have public property (such as roads) located downstream. The area of Nevada County where most of these dams exist is not located within a historically seismically active zone. In fact, the western half of the County resides within the lowest earthquake intensity zones in California.

Within the eastern portion of Nevada County, classified in the high earthquake intensity zone, are three major dams: Prosser Creek Reservoir Dam, Stampede Reservoir Dam (located with Sierra County) and Boca Reservoir Dam. One of the two major faults within this portion of the County believed to be potentially seismic appears to be relatively active and of special significance due to its close proximity to the three dams noted above. However, the Truckee earthquake of 1966 had a magnitude of 5.4 but only relatively slight damage occurred to both Prosser and Boca earth fill dams.

In the western portion of the County, flooding in the event of failure of the Upper and Lower Scotts Flat Dams would inundate a wide area from east of Nevada City, through Nevada City and west to Lake Wildwood. The failure of such a dam would most likely be the result of a significant earthquake. Also in western Nevada County is the Rollins Reservoir on the Bear River, which flows into Combie Lake. The Nevada Irrigation District owns both bodies of water and has inundation plans in place for both of them. It is predicted that a collapse of the Rollins Reservoir Dam may impact Camp Far West reservoir in Yuba and Placer County. Two dams owned by PG&E in the Spaulding Lake complex (Spaulding and Fordyce) have a downstream hazard rating of Extremely High. Collapse of the two dams would cause significant flooding at the 2,700-foot level in the Town of Washington.

In the aftermath of the Oroville Dam emergency evacuation in Butte County due to the lake level overtopping the dam during the winter of 2017, Senate Bill 92 was signed into law on June 17, 2017. The intent of Senate Bill 92 was to codify requirements that would assist and guide local jurisdictions in their emergency planning for dam failure events and aid local, State, and Federal agencies to ensure effective dam incident emergency response procedures and planning. The bill requires owners of State regulated dams to submit their inundation maps for review and approval to the Department of Water Resources. Inundation maps are now required to be publicly available. After the approval of the inundation map, the dam owner is required to prepare an Emergency Action Plan, with the exception of low-hazard dams. Prior to Senate Bill 92, the State did not have the power to compel dam owners to prepare Emergency Action Plans. The Emergency Action

Plans are also required to be updated no less than every 10 years or when significant changes occur at the dam or downstream.

The Emergency Action Plan is a written document that identifies potential emergency conditions at a dam and specifies preplanned actions to help minimize property damage and loss of life, should those conditions occur. The plan contains procedures and information that instruct dam owners to issue early warning and notification messages to downstream emergency management authorities. The plan must also contain the approved inundation map(s) identifying critical areas for evacuation-related actions.

Downstream hazard classifications are based solely on potential downstream impacts to life and property should the dam fail when operating with a full reservoir. The definitions for downstream hazard classifications are based on the Federal Emergency Management Agency's *Federal Guidelines for Inundation Mapping of Flood Risks Associated with Dam Incidents and Failures (FEMA P-946, July 2013).* The Federal Emergency Management Agency categorizes the downstream hazard potential into three categories of increasing severity: Low, Significant, and High. The Division of Safety of Dams adds a fourth category of "Extremely High" to identify dams that may impact highly populated areas or critical infrastructure, or have short evacuation warning times. Additional information on dams in Nevada County, and their hazard profiles and vulnerability assessments can be found in Nevada County's Local Hazards Mitigation Plan in Part 2, Chapter 7.

Seiches

Seiches are seismically induced waves in bodies of water that can be particularly hazardous where lakes and reservoirs are bordered by campgrounds or other facilities on flat banks. Because of the large number of recreational lakes in Nevada County, seismically induced seiches could prove very damaging. However, most recorded seiches have not been of significant magnitude, and considering the overall seismic risk in this County, seiche risk should be considered only a moderate hazard.

Airport and Military Airspace Hazards (AH)

Nevada County has within its boundaries several small private airports and two public airports—the Nevada County Airport and Truckee-Tahoe Airport. The Nevada County Airport lies within the foothills near Grass Valley and Nevada City, and the Truckee-Tahoe Airport is located east of the Town of Truckee, with portions of airport lands crossing the County line into Placer County. Safety issues arise as a result of compatible use and non-compatible land uses existing side-by-side with one another. The Federal Aviation Administration (FAA) defines the most critical areas as those that are immediately beyond the runway ends, the initial climb out, and final approach sectors. It is within these approach/departure sectors that a concentration of aircraft accidents occurs. In addition, there are studies indicating that about half of all airport accidents occur on airport property and an additional 15 percent of accidents occur within one mile outside the airport property. This information suggests that those areas immediately off the ends of the runway and under the airport traffic pattern should be carefully evaluated for compatible future land use and development.

Airport Land Use Compatibility Planning

State law requires that any County with an airport operated for the benefit of the general public establish an Airport Land Use Commission (ALUC). ALUCs were first established under the California State Aeronautics Act in 1967 for the fundamental purpose to promote land use compatibility around airports. ALUCs have three primary functions under State law:

1. The adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise.
2. Prevent the encroachment of incompatible land uses around public-use airports.
3. The preparation of an Airport Land Use Compatibility Plan (ALUCP) for the area around each public use airport that defines compatible land uses for noise, safety, airspace protections, and overflight.

Government Code Section 65302.3 establishes that each County and city affected by an airport land use compatibility plan must make its general plan, any applicable specific plans and zoning ordinance consistent with the ALUCP. Alternatively, local agencies can take the series of steps listed in the Public Utilities Code to make specific findings to overrule the ALUCP policies or portions of it. While the ALUC has the sole authority to adopt the ALUCP and conduct compatibility reviews, the implementation of the compatibility policies rests with local governments.

Nevada County and Truckee Tahoe Airport Land Use Compatibility Plans

Through formal and informal consultation with the Nevada County Community Development Agency and the Town of Truckee, the *Nevada County and the Truckee Tahoe Airport Land Use Compatibility Plans (NCALUCP and TTALUCP)* have been adopted and are maintained by the Nevada County Airport Land Use Commission (NCALUC) and the Truckee Tahoe Land Use Commission (TTALUC). Guidelines and requirements for fulfilling the ALUC's duty to review airport and adjacent land use development proposals are set forth in these land use policy documents. The NCALUCP and TTALUCP identify the compatibility zones and sets the criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances, and to land owners in their design of a proposed project or new development. Land areas within the City of Grass Valley, the Town of Truckee and Nevada County are affected by the NCALUCP.

Military Airspace Compatibility

In guiding growth and development in Nevada County, it is important to consider the critical role of Military Operation Areas (MOAs) in support of national defense. A military operations area is a three-dimensional airspace designated for military training and transport activities that has a defined floor (minimum altitude) and ceiling (maximum altitude). In Nevada County the MOA consists of a Military Training Route (MTR) which is a low-level high-speed route that is not only used for commutes between installations but allows the pilots to develop the skills necessary to avoid detection by enemy radar. There is one MOA located in the eastern portion of Nevada County that is used by military aircraft to practice high- and low-altitude training exercises and to traverse between military installations. Any development or new construction that seriously

impacts or hinders the function and viability of a MOA is considered incompatible land use. As Nevada County's population and economic activity grow in the future, public safety within the MOA shall be coordinated with the military through compatible land use planning in accordance with California Government Code Sections 65352 (a)(5) and (6)(A), 65940, and 65944.

Hazardous Materials (HM)

The significance of hazardous materials to the environment, property, and human health depends on the type, location, and quantity of the material released. Certain areas of the County are at higher risk of encountering a hazardous material incident. Roadways, railways, waterways, and airways are frequently used for transporting hazardous materials. Areas with industrial facilities that use, store, or dispose of such materials all have an increased potential to exposure.

The County's pre-incident planning and preparedness for hazardous materials releases is contained in the Nevada County Hazardous Materials Area Plan and involves coordinating with First Responding Agencies that service the Nevada County area. The Hazardous Materials Area Plan fulfills State law and is used as a resource document in conjunction with the Nevada County Local Hazard Mitigation Plan, and other local and State plans.

Stationary Sources of Hazardous Materials

Most of the hazardous waste streams within Nevada County are generated by small quantity generators with the major contributor to the hazardous waste stream being waste oil. Other groups include non-halogenated solvents, dye and paint sludges, resins, and non-metallic inorganic liquids. The Nevada County Department of Environmental Health in conjunction with the State Department of Toxic Substances Control (DTSC) and the Department of Resources Recycling and Recovery (CalRecycle) collaborate to maintain information on a list of contaminated sites within Nevada County. DTSC and the State Water Boards are the lead agencies on maintaining a comprehensive list of sites on their Envirostor and GeoTracker database programs. The most commonly found form of groundwater contamination on this list occurs from hydrocarbons (gasoline, diesel, and other fuels). Additionally, naturally occurring asbestos (NOA) is present in multiple areas of Nevada County, and much of the populace is unaware of its existence. There is no safe level of exposure to asbestos, regardless of the source. The earlier in the planning process that NOA is identified, the easier it is for the applicant to address.

Transport of Hazardous Materials

Interstate 80, the Union Pacific Railroad, and the Kinder Morgan petroleum pipeline are the three major transportation routes by which hazardous materials are transported through the County. Interstate 80 weaves in and out of the eastern half of the County from the State Route 20 interchange to the Nevada State line. It is within this corridor that the incident of an accidental release of hazardous material is most likely to occur. Traffic volumes, the winding character of the Interstate, and snow and ice make this corridor especially dangerous during the winter months. In addition to the character of the interstate, the remoteness of the County from outside help creates even a greater potential for a major incident. Assistance from areas outside the County would be unavailable for a period of one to four hours, in the event of a hazardous materials spill.

Mining Hazards (MH)

More than a century of placer and hard rock mining in Nevada County has left a legacy of both physical and chemical hazards. Of the approximately 50 contaminated sites identified by the State Department of Toxic Substances Control (DTSC) in Nevada County, the most common contaminants are arsenic, lead, and mercury from past mining activities. The County is also home to Lava Cap Mine, a Federal Superfund site. Historic mining practices, processing techniques, and improper closures at hundreds of abandoned mine sites pose potentially hazardous conditions in both *Rural* and *Community Regions*. Potential hazards vary from one site to another. Mine waste cleanup is regulated by a number of Federal and State agencies, including the US Environmental Protection Agency, the California Department of Toxic Substance Control, and the California Regional Water Quality Control Board.

Given the extensive mining history in Nevada County, subsidence due to past mining operations is a concern when identifying appropriate land use and associated development. Past mining activities have created surface subsidence and the potential for subsidence in other areas. Hydraulic mining has significantly altered landscapes by relocating large volumes of sediment that has been carried downstream and redeposited. The hydraulic mine pits may continue to release sediment into surface flows and impact water quality during large precipitation events. Tailing piles and tailing ponds are also mining remnant surface features that can pose risks due to the potential presence of hazardous materials. According to the *Abandoned Mine Lands Preliminary Assessment Handbook* from the California Department of Toxic Substances Control, contaminated water known as acid mine drainage from a mine or mine waste pile can also pose risks to waterways, aquatic biota (plants and animals), and the surrounding environment. The pathways for potential human health threats from exposure of contaminants from abandoned mines may be from direct contact or from indirect exposure, such as through the consumption of food items. In addition to the potential presence of hazardous materials, when mines were abandoned airshafts were left exposed or covered with wooden boards that have since rotted. Access shaft entrances were often quickly covered up with logs and/or boulders that are now gone or decayed and no longer serving the purpose of excluding entrance and protecting the public.

To protect future residents and minimize exposure to hazardous materials and unsafe conditions, Nevada County will take a supportive role in identifying, evaluating, and mitigating risks associated with legacy mining during land development processes. The Nevada County Environmental Health Department (NCDEH) provides technical assistance during the development review process, including guidance on site investigations and referrals to appropriate state agencies. The NCDEH is not authorized to oversee cleanup or remediation activities but will support project applicants in coordinating with oversight agencies.

The California Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board are the primary agencies with regulatory oversight for the assessment, cleanup, and long-term management of hazardous materials related to legacy mining. The Nevada County Building Department is responsible for evaluating and permitting development with respect to geotechnical safety where legacy mining hazards may be present. This includes ensuring proper mitigation of physical hazards such as closure of mine shafts, vents,

and adits, as well as addressing risks of ground subsidence, structural instability, and other safety concerns related to former mining features.

Public Safety Services and Facilities (SF)

Public safety services and facilities within Nevada County are provided by a multitude of agencies. Public safety services and facilities are essential to the health and welfare of the population and maintaining essential and emergency functions are designated as critical facilities. These typically include police and fire stations, schools, emergency operations centers, and infrastructure such as roads, bridges and utilities that provide water, electricity, and communications. Facilities that use or store hazardous materials are designated as critical facilities as well. All of these facilities are especially important after any hazard event (FEMA 1997). FEMA defines some types of critical facilities, as well as public services or activities, as "community lifelines." Community lifelines provide the fundamental services in a community that, when stabilized, enable all other aspects of society. Following a disaster event, intervention is required to stabilize lifelines. Pursuant to the 2025 Nevada County Local Hazard Mitigation Plan (LHMP), FEMA defines eight categories of community lifelines as summarized in Table 3-8, as shown in Figure 10.2 below. A comprehensive inventory of community lifelines in Nevada County was developed from various sources, including input from the Steering Committee and Planning Partnership. The following sections describe the inventory of community lifelines that was used for the risk assessment in this LHMP. Although many lifeline facilities could fall within numerous categories, each lifeline facility identified for this planning effort was categorized according to its primary function. Please see Table 10.4 provided below from the 2025 Nevada County LHMP for Types of Critical Facilities/Community Lifelines.

Community Lifeline Category	Types of Facilities and Services Included
Safety and security	Law enforcement/security, fire service, search and rescue, government service, community safety
Food, hydration, shelter	Food, hydration, shelter, agriculture
Health and medical	Medical care, public health, patient movement, medical supply chain, fatality management
Energy	Power grid, fuel
Communications	Infrastructure, responder communications, alerts warnings and messages, finance, 911 and dispatch
Transportation	Highway/roadway/motor vehicle, mass transit, railway, aviation, maritime
Hazardous materials	Facilities, hazmat, pollutants, contaminants
Water systems	Potable water infrastructure, wastewater management

Table 10.4: Types of Critical Facilities/Community Lifelines

Availability of a reliable public water supply is necessary to support long-term development in urban areas. Both eastern and western Nevada County water supplies have been determined to sufficient in both quantity and quality. In the eastern County, the primary purveyors are Truckee Donner Public Utility District, the Donner Summit Public Utility District, Donner Lake Utility Company and Glenshire Mutual Water Company. The western County is served primarily by the Nevada Irrigation District (NID).

The County is protected by multiple fire protection agencies, including the Nevada City Fire Department, Nevada County Consolidated Fire District, North San Juan Fire Protection District, Ophir Hill Fire Protection District, Peardale-Chicago Park Fire Protection District, Penn Valley Fire Protection District, Rough and Ready Fire Protection District, Washington County Water District (Washington Fire), CAL FIRE, Grass Valley City Fire Department, and the Higgins Fire

Protection District. In Eastern Nevada County, CAL FIRE and the Truckee Fire Protection District provide fire protection services.

Safety and Security Lifeline Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- There are 10 law enforcement facilities, 45 fire department facilities, 3 wildland fire lookouts, and 1 fire control air operations base in Nevada County.
- The California Highway Patrol and Nevada County Sheriff's Office provide law enforcement in Nevada County. Grass Valley, Nevada City, and Truckee operate their own police departments.
- The Nevada County Office of Emergency Services (OES) coordinates with County departments, local cities, and special districts to prevent, protect, mitigate, respond to, and recover from disasters. OES designs and conducts disaster preparedness and response exercises and evaluates emergency staff training. OES maintains the County emergency operations center (EOC). OES coordinates, distributes, and maintains comprehensive emergency management plans. The primary plan maintained and utilized by OES is the Nevada County Emergency Operations Plan (Nevada County n.d.).
- The National Inventory of Dams lists 56 dams in Nevada County (USACE n.d.): 27 high hazard; 1 significant hazard; and 28 low-hazard (see Chapter 7 of the 2025 LHMP for details on dams).
- The National Levee Database lists one levee in Nevada County, located in the Town of Truckee along Donner Creek. This levee is minor and provides protection to a single building. It was excluded from the inventory as it was determined not to be a critical facility for Nevada County.
- There are no military installations in Nevada County.

Food, Hydration, and Shelter Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- There are over 40 grocery stores in the County for food and hydration needs.
- There are 30 public and private elementary and middle schools, 18 high schools and 1 college in Nevada County. These can function as shelters during emergencies.
- Nevada County has numerous departments, agencies, and programs to support socially vulnerable populations. The Nevada County Health and Human Services Agency provides support to at-risk families including food, health care services, health and wellness, housing assistance for the homeless, and cash assistance. The Nevada County Housing and Community Services Program pursues, secures, and administers state and federal funds to benefit low-income households. The Department of Social Services (DSS) serves County

residents needing social, eligibility, or employment and training services (Nevada County n.d.). These groups operate from County government buildings.

Health and Medical Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- The County has multiple hospitals and health care facilities ranging in size and primary function from smaller community health centers to larger, regional hospitals.
- For non-emergency health care, urgent care centers are located throughout the County.
- The County has a number of pharmacies and rehabilitation facilities.
- Programs and services for the senior population in Nevada County include 10 nursing homes. These facilities are highly vulnerable to impacts from disasters and knowing their location facilitates pre- and post-disaster response planning.

Energy Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- Gas and electric power are transmitted and distributed by PG&E. Southwest Gas provides gas in eastern Nevada County. NV Energy transmits electric power to eastern Nevada County, which is distributed by Liberty Utilities and Truckee Donner Public Utility District.
- Roughly 10 power plants are in the County, with roughly 30 electrical distribution facilities.
- There are dozens of gas stations and one hydrogen charging station in the County.

Communications Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- Nevada County OES has capability to alert public officials and the general public of actual or impending emergencies. Resources include the media, internet, and telephones (see Figure 3-13). A County-funded emergency notification system (Nevada County Alert and Warning System) can send alerts to thousands of residents' landline telephones within minutes (Nevada County OES n.d.)
- The Nevada County EOC is a multi-agency coordination point for emergencies affecting multiple jurisdictions or disciplines. During a disaster, the EOC is the communication link with the operations centers of other County agencies, municipalities, adjacent counties, and state and federal offices. EOC staffing draws from a pool of County employees who have been identified and trained to assume each EOC staff position.

- Communications systems in Nevada County include traditional land line, fiber optic, and cellular service provided by multiple companies, such as AT&T, Verizon, and Comcast. There are 946 communication facilities in Nevada County, including mobile tower, microwave service towers, and private land mobile towers.
- Current broadband speeds and availability in the region still lag behind non-rural counties but are equal to or above average in comparison to similar peer rural Northern California Sierra communities (Nevada County Executive Office 2021).

Transportation Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- Transportation in and around Nevada County includes highway, rail, air, bus, and increasingly, cycling and pedestrian.
- The County maintains nearly 600 miles of roads and highways.
- Interstates, freeways, highways, and other principal arterial routes serve as the primary means of egress during an evacuation from the County and ingress for emergency personnel. Routes designated as minor arterial and major collector routes supplement the primary evacuation routes and provide egress from local neighborhood and communities.
- Over 17,000 commuters enter or leave the County daily for work. The top destination out for work is Placer County (6,170), followed by Sacramento County (1,732), and Washoe County, Nevada (844). Typical commute times are 30 minutes to Placer, 2 hours to Washoe, and nearly 4 hours to parts of the Sacramento Valley (Nevada County Executive Office 2021).
- Nevada County Connects provides local and regional fixed-route bus service to the municipalities and unincorporated areas of western Nevada County, including Nevada

City, Grass Valley, Penn Valley, Rough and Ready, Lake Wildwood, Alta Sierra, Lake of the Pines, and the regional hub at the Auburn Amtrak station.
- There are bus routes for Greyhound and connections to neighboring county bus systems.
- Gold Country Lift is a paratransit bus company that provides door to door service for seniors and persons with disabilities in Grass Valley, Nevada City, and Penn Valley.
- There is one Amtrak rail station, in the Town of Truckee. The rail line runs along the Truckee River in the eastern end of the County.
- The Truckee Tahoe Airport straddles Nevada County and Placer County 2 miles east of the Town of Truckee. The Airport is managed by the Truckee Tahoe Airport District, a bi-county special district (Truckee Tahoe Airport District n.d.).
- There is no commercial air service from the Nevada County Airport, but charter flights are available (Nevada County n.d.).
- There is a private airport (Alta Sierra Airport) south of Grass Valley.

Hazardous Materials Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- The U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation and Liability Information System Public Access Database reports one Superfund site in Nevada County—the 33-acre Lava Cap Mine. Superfund sites are locations requiring a long-term response to clean up contamination. The Lava Cap Mine is a former gold mine in Nevada City. Cleanup is ongoing, with a cap completed on site in 2006 (U.S. EPA 2023c).
- As of 2023, the Lava Cap Mine site is the only site in Nevada County listed on the federal National Priorities List (NPL). Abandoned hazardous waste sites on the NPL include those that the EPA has determined present "a significant risk to human health or the environment."
- The majority of the hazardous waste stream in Nevada County is generated by small quantity generators. The major hazardous waste stream is waste oil. Miscellaneous waste, such as asbestos, metal dust, and chemical toilet waste, is another major group. Other groups include non-halogenated solvents, dye and paint sludges, resins, and non-metallic inorganic liquids.
- The Nevada County Department of Environmental Health maintains a complaint site list of contaminated sites within Nevada County. The most commonly found form of

groundwater contamination on this list results from hydrocarbons (gasoline, diesel, and other fuels) (Nevada County GIS 2020).

- Interstate 80, the Union Pacific Railroad, and the Kinder Morgan petroleum pipeline are the major transportation routes by which hazardous materials are transported through the County.
- Interstate 80 weaves in and out of the County from the State Route 20 interchange to the
- Nevada state line. It is within this corridor that the incident of an accidental release of hazardous material is most likely to occur. Traffic volumes, the winding character of the Interstate, and snow and ice make this corridor especially dangerous in winter.
- The remoteness of Nevada County from outside help increases the risk associated with a major hazardous materials incident. In the event of a hazardous materials spill, assistance from areas outside the County could be unavailable for a period of 1 to 4 hours (Nevada County GIS 2020).

Water System Facilities

Key facilities and services considered for the inventory under this category are as follows. See Section 3.9 Community Lifelines of the 2025 Nevada County LHMP for additional information:

- Waterwells are commonly used as the only potable water supply in Nevada County. A small water system is defined as water for human consumption that has 15 or more service connections or regularly served at least 25 individuals at least 60 days out of the year.
- Nevada County Environmental Health Department regulates the construction, modification, and destruction of water wells throughout the County in order to protect groundwater resources.
- Through the Local Primacy Agency under contract with the State Water Resources Control Board, Nevada County ensures that small water systems deliver safe, adequate, and dependable potable water (Nevada County n.d.)
- By population percentage, 99 percent of Nevada City, 100 percent of Grass Valley, 91 percent of the Town of Truckee, and 19 percent of the unincorporated areas of the County have treated wastewater (Nevada County Executive Office 2021).
- Currently, the majority of the outlying unincorporated areas rely on private septic wastewater treatment systems. The Sanitation District provides wastewater treatment in the unincorporated areas of Western Nevada County. A regionalization project has been completed to expand wastewater treatment to the Penn Valley area.

Fire Hazards and Protection (FP)

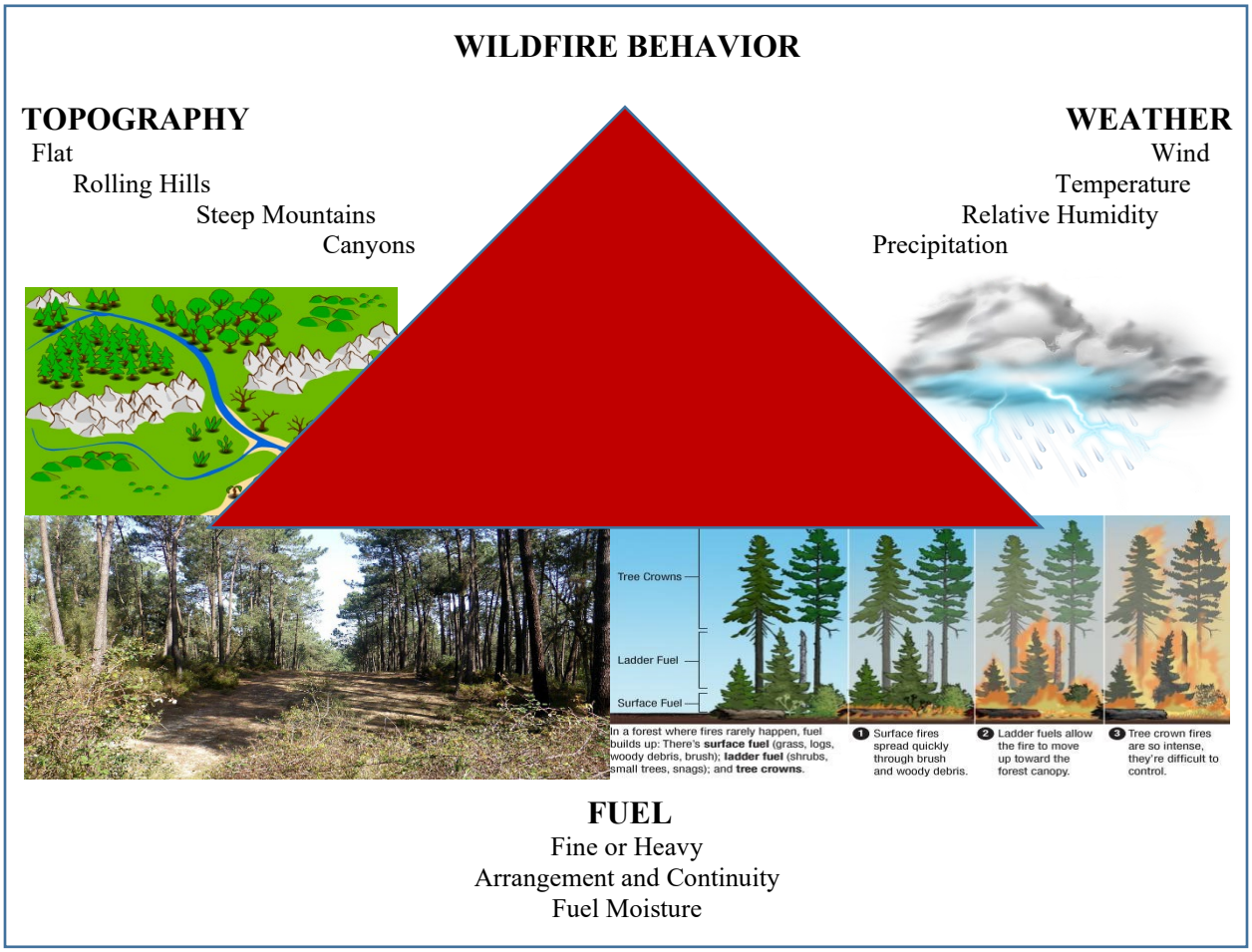
Wildland Fires

A wildfire is an uncontrolled fire that is burning vegetation in wildland or rural areas, that can spread into communities or developed areas, and that requires fire suppression. Wildfire data provided by Nevada County (2023) was used to delineate wildfire hazard priority areas across the County for two fire scenarios: fuel-driven and wind-driven. To identify assets exposed to wildfire, asset inventory GIS data were overlaid with the hazard area. Assets with their centroid located in

the hazard area were totaled to estimate the numbers and values at risk from the impacts of a wildfire event. The number and severity of wildfires in California are projected to continue to face dramatic increases. Seven (7) of the twenty-seven (27) most destructive wildfires in the State's history occurred between 2019 and 2025 (2025 Nevada County LHMP).

Fire has been an integral part of the California landscape for thousands of years. The Mediterranean climate (cold and wet winters/spring and warm and dry summers/fall) supports very productive natural plant communities, and with the rugged terrain, it contributes to the one of the most extremely fire-prone and consequently fire-adapted landscapes in the world. The extreme fire behavior observed over the last twenty-five years is a product of these three elements and the exponential influences of climate change. In addition to this formula, the fire management constraints due to the increasing population trends within and adjacent to forests and other highly flammable vegetated landscapes, which also correlates to increased human ignition sources, establish conditions that have created circumstances that are most conducive to have large scale, extremely impactful wildfires. The diagram in Figure 10.2 highlights the elements that influence wildfire behavior.

Figure 10.2: Wildfire Behavior Diagram



Fire Behavior is "the manner in which fuel ignites, flame develops, and fire spreads and exhibits other related phenomena as determined by the interaction of **fuel**, **weather** and **topography**." Climatic factors have increased the odds that these elements come together more often and produce extreme fire behavior.

Wildland fires, and in particular fires that impinge on the Wildland Urban Interface, have the potential to cost County residents the most financially. Wildland Urban Interface is a general term that applies to development interspersed or adjacent to landscapes that support wildland fire. Residential developments in and adjacent to the Wildland Urban Interface areas and limited forestland management resources have created and will continue to perpetuate an environment of dense fuel reserves with wildland fire risk to the County's residents and their improvements. The best strategy to date has been to thin fuel sources at wildland urban interfaces, educate residents, and provide a rapid response to wildland fires when they start.

The extreme fire behavior experienced across California is the result of the long-term interruption of the natural fire cycle and the consequences of Climate Change. Facilitating the return of the natural fire cycle is not an option across many portions of Nevada County because of the fuel loads that exist today and the dispersed development pattern in the Wildland Urban Interface that continues to expand into areas previously not developed. However, with vegetation management (including prescribed/controlled burns), the reduction of fuels to the pre-settlement "natural" levels in targeted areas in and around communities will reduce the risks associated with wildfires.

Accepting Nevada County's terrain, climate, rainfall, and forest/urban mix, it is a certainty that significant wildland fires are going to continue as a threat. Where there is human access to wildland areas, such as the Sierra Nevada and foothills areas, the risk of fire increases due to the greater chance for human carelessness and human caused ignitions.

Historically, the fire season extended from late Spring to early Fall in the Sierra. Fire conditions arise from a combination of hot weather, an accumulation of vegetation, and low moisture content in the air and the vegetation. Climatic changes have given rise to warmer average temperatures beginning earlier in the Spring and continuing through the Fall which is resulting in a longer fire season. The wildfire risk is predominantly associated with Wildland Urban Interface areas. Wildland Urban Interface areas have been a major focus of California Department of Forestry and Fire Protection's (CAL FIRE) fire management strategy since at least 1972. A fire along this wildland/urban interface can result in major losses of property and structures. Potential losses from wildfire include: human life, structures and other improvements; natural and cultural resources; the quality and quantity of the water supply; assets such as timber, range and crop land, and recreational opportunities; and economic losses. In addition, catastrophic wildfire can lead to secondary impacts or losses such as future flooding and landslides during the rainy season.

Since the passing of the Bates Bill (Senate Bill 337) in 1992, CAL FIRE has worked with local governments to identify high hazard severity zones within local and State responsibility areas. The Hazard Severity Zones map identifies the level of fire hazard geographically based on the physical conditions and the likelihood that an area will burn over a 30 to 50-year period. The Map is used to direct policy as it pertains to how buildings are constructed and property is protected (e.g.; defensible space, availability of water, building codes, driveway and road standards) to reduce

risks (the potential damage a fire can do) associated with wildland fires. CAL FIRE has classified 92 percent of the area it has mapped within Nevada County as being either High or Very High Fire Hazard Severity zone. This presents a challenge when determining how to prioritize different parts of the County. To address this, Nevada County OES completed the Wildfire Hazard Assessment in 2023 to map the wildfire hazard across the County and determine wildfire hazard priority using a comparative analysis. The Landscape Burn Probability model of the Interagency Fuel Treatment Decision Support System (IFTDSS) fire behavior modeling software was used to determine the wildfire hazard priority in Nevada County (Nevada County OES 2023). A map with fire hazard severity zones within the State Responsibility Areas can be found on the Nevada County GIS site at: https://gis.nevcounty.net/MyNeighborhood/. Wildfire data provided by Nevada County (2023) was used to delineate wildfire hazard priority areas across the County for two fire scenarios: fuel-driven and wind-driven, as discussed below. Refer to Part 2, Chapter 16 Wildfire of the 2025 Nevada County Local Hazard Mitigation Plan for additional information:

- **Fuel-Driven Fire**—Fuel and topography are the primary drivers of fire behavior and fire growth is predominantly driven by fuel type, density, condition, and moisture. Wind speeds in these types of fires tended to be lower, and the terrain had a significant influence on fire behavior. Such conditions could occur at any time of the year but are at critical condition in summer.
- **Wind-Driven Fire**—Wind-driven fire is driven by extreme wind speed and wind gusts and experiences rapid-fire growth, extreme rates of spread, long-range spotting, and extreme fire behavior. Such conditions typically occurred in late summer/early fall.

To identify assets exposed to wildfire, asset inventory GIS data were overlaid with the hazard area. Assets with their centroid located in the hazard area were totaled to estimate the numbers and values at risk from the impacts of a wildfire event. The County was divided into four Forecast Zones (FZs) for the assessment. The selection of the FZs was based on the fire environment, local weather patterns, fire history, community boundaries, and expertise from a technical advisory committee. While the modeling was completed at the FZ scale to better capture differences in fire environment, the Wildfire Hazard Assessment analysis focused on the County-scale. Analysis at the FZ scale is included in the Community Wildfire Protection Plan (Nevada County OES 2023). The four FZs were:

- Higgins/Penn Valley (143,740 acres)
- Grass Valley/Nevada City (134,593 acres)
- Tahoe National Forest Area (263,159 acres)
- Truckee/Donner (108,453 acres)

Factors contributing to the wildfire hazard risks and vulnerabilities in Nevada County include:

Hazards:

- Overstocked forests, severely overgrown vegetation, lack of vegetation management by some absentee property owners, and lack of defensible space around structures;
- Excessive vegetation along roadsides (both publicly owned and private) and hanging over roads that can impede emergency access, and emergency evacuation;

- Conditions such as drought and overstocked forests stress and weaken trees making them susceptible to beetle infestations that kill trees in small to very large swaths of land across the landscape;
- Topography; steep canyons accommodating wind corridors; and
- Nature and frequency of lightning ignitions.

Vulnerabilities:

- Narrow and often one lane and/or dead-end roads complicating evacuation and emergency response as well as subdivisions that have only one means of ingress/egress;
- Locked gates across private roads that serve more than one property impairing or eliminating a second means of emergency ingress/egress that may or may not have previously been available;
- Inadequate or missing street signs on private roads and absent or poorly placed house address signs;
- Inadequate water storage and fire-flow infrastructure in some portions of the County;
- Increasing residential development in the Wildland Urban Interface and older legacy residential development that does not meet today's development and fire codes; and Mobility limitations of certain populations such as seniors, non-drivers and one-car households.

In an effort to prevent fires, the electrical services provider for western Nevada County—Pacific Gas and Electric Company (PG&E)—initiated public safety power shutoff (PSPS) events in 2019, which have continued in subsequent years, and will continue to be utilized until fire risks associated with power lines are decreased. PSPS events involve PG&E turning off electrical service during times when the weather is predicted to have a heightened fire risk from gusty winds and dry conditions. Dependent on the fire risks, the power outage events may occur in specific areas or for all PG&E customers across the County. The PSPS events that occurred in Nevada County between 2019-2024 impacted a majority of the western portion of the County, including Nevada City and the City of Grass Valley. The widespread PSPS events in the County brings additional risks to the residents in the County, to include inadequate access to medical devices and services, food preservation and safety, proper storage of medication, uncontrolled temperatures and exposure to excessive heat or cold, inadequate ventilation, lack of water and proper sanitation, disrupted communications, inability to use electronic gates or garage doors, and closed businesses and services. Throughout the PSPS events, emergency services in Nevada County remain functional with back-up power supplies, but many businesses and agencies are not operational. The PSPS events pose health and safety risks to all impacted businesses and residents to Nevada County, with an elevated risk to more vulnerable communities with less resources available during and after power outages.

Fire-Safe Infrastructure

Fire-Safe Circulation

Roads are critical infrastructure supports for suppressing wildfires. They serve as ingress and egress routes to and from wildfires, staging areas, safety zones, coordinating locations, anchor

points for fire suppression activities, and evacuation routes. Most initial incident command posts are established at roadside locations to coordinate with incoming fire equipment.

Private roads, which network between residences and public roads, provide another avenue for firefighting operations and evacuation. The Nevada County road system consists of approximately 2,360 miles of public and private roads. Nearly 75% of the roads are private roads, which equates to approximately 1,800 miles of roadway. The quality and conditions of these roads are variable. Most private roads do not meet the minimum fire safety standards established in the Nevada County Code because they predate the current code. More detailed information on circulation is provided in the Nevada County General Plan, Chapter 4: Circulation Element.

California Health and Safety Code Section 40910 requires that "[air]districts shall consider the full spectrum of emissions sources and focus particular attention on reducing the emissions from transportation and areawide sources…" And while less direct than naturally occurring asbestos, transportation is also rooted in planning efforts and directly affects air quality. Roads with shade infrastructure promote walkability, bike-ability and public transit use. The lack of shade along roads increases rural and urban temperatures, leading to increased windspeed, dryer vegetation and fire-prone ecosystems. Additionally, trees within five (5) feet of the edge of pavement (safely spaced and pruned) decrease the "perceived safe speeds" along roads, thereby discouraging speeding and increasing road safety. Furthermore, adding lane space and road capacity does not eliminate road congestion, but instead creates "induced demand" and increases road usage over time, directly impacting local air quality.

Roadside Vegetation Management

The width of roads and clearance around roads is a primary factor affecting firefighting operations. The County maintains approximately 560 miles of public roads, including vegetation management along the roads to reduce fuels in conjunction with road maintenance, which generally consists of repaving or chip sealing. This vegetation management occurs under the Nevada County Public Works Department's Roadside Vegetation Management Program. The program treats approximately 50 miles, or approximately 9% of the County Road system on an annual basis. This figure equates to rotational roadside treatment of approximately 11 years for each mile of roadside vegetation.

Emergency Water Storage Systems

Title 4, Chapter 4 Emergency Water Supply of the Nevada County Code provides information and requirements for Emergency water storage throughout the County, involving a mixture of systems. A hydrant system is the dominant source in cities, towns, and major subdivisions. Rural areas of the County depend on a mixture of individual water tanks, pools, ponds, lakes, and ditches. The Nevada County Code specifies the minimum size for individual water tanks for proposed subdivisions and other applicable projects. The placement of emergency water storage has been incremental, resulting in small storage tanks on development sites. Given the development patterns, densities, and locations of existing water storage tanks, fire experts recognize the need for improving the emergency water storage system, the maintenance of the facilities and assurance the tanks are maintained as full.

Critical Facilities/Community Lifelines and Populations at Risk

The 2025 Nevada County Local Hazard Mitigation Plan includes an inventory of critical facilities/community lifelines and populations at risk, in consideration of the fire hazard severity zones across all jurisdictions. The inventory identified a total of 49 critical facilities/community lifelines for both fuel driven scenarios and wind driven scenarios in the Very High Fire Hazard Severity Zone, 42 critical facilities/community lifelines in the High Fire Hazard Severity Zone, and 126 critical facilities/community lifelines in the Moderate Fire Hazard Severity Zone. The population over age 65 is also more vulnerable because they are more likely to need medical attention that may not be available due to isolation during a wildfire event, and they may have more difficulty evacuating. Socially vulnerable populations also may lack resources to quickly recover after a wildfire occurs. The following lists types of facilities/community lifelines that provide essential services and/or house at-risk populations that were included in the inventory (the entire list and mapped locations can be found in Part 2 Chapter 16 of the 2025 Nevada County Local Hazard Mitigation Plan):

- Communication Facilities
- Energy Facilities
- Food, Hydration, and Shelter Facilities
- Hazardous Materials Facilities
- Health and Medical Facilities
- Safety and Security Facilities
- Transportation facilities
- Water System Facilities

Fire Agencies and Support Organizations

The County is protected by multiple fire protection agencies, including eight local fire districts, one water district, two City fire departments, CAL FIRE, the Bureau of Land Management (BLM), and the US Forest Service (USFS). In Eastern Nevada County, CAL FIRE and the Truckee Fire Protection District provide fire protection services. In Western Nevada County, the following fire districts and departments provide fire protection services for the cities and unincorporated areas of the County:

- CAL FIRE
- Grass Valley City Fire Department
- Higgins Fire Protection District
- Nevada City Fire Department
- Nevada County Consolidated Fire District
- North San Juan Fire Protection District
- Ophir Hill Fire Protection District
- Peardale-Chicago Park Fire Protection District
- Penn Valley Fire Protection District
- Rough and Ready Fire Protection District
- Washington County Water District (Washington Fire)
- Placer County

Fire protection services are determined by jurisdiction and responsibilities. In general, local fire districts and city departments provide emergency medical services, other emergency responses, and fire protection for structures within their respective jurisdictions. Some fire districts are staffed with volunteers; however, volunteers are not always sustainable and the response from these stations may be impacted. CAL FIRE provides all-risk fire protection services within those areas mapped State Responsibility Areas on non-Federal lands for the purpose of life, property and resource protection. USFS and BLM provide wildland fire protection services on Federal lands in Federal Responsibility Areas for watershed and resource protection. Some areas are also identified as Local Responsibility Areas, including those within the cities of Grass Valley and Nevada City, as well as the area under the jurisdiction of the Truckee Fire Protection District.

Master Mutual Aid and California Mutual Aid agreements between the fire protection agencies that serve Nevada County enable cooperative fire protection and the dispatch of the appropriate level of emergency response from the cooperating agencies, providing the most effectual fire protection, regardless of the responsibility area. The Grass Valley Emergency Command Center, located at the Nevada County Airport in Grass Valley, is an interagency-agency cooperative facility between the United States Forest Service (Tahoe National Forest) and CAL FIRE (Nevada-Yuba-Placer Unit). CAL FIRE dispatch personnel provide emergency dispatch services through cooperative agreements with all the fire districts and cities within Nevada County, a dozen County Offices of Emergency Services in the Sierra Nevada, and private contractors delivering air and ground medical services.

Nevada County is home to an additional distinct emergency resource located at the Nevada County Airport in Grass Valley—the Interagency Wildfire Air Attack Base. This is one of only fourteen (14) Wildfire Air Attack Bases in California, and it is one of three Interagency Wildfire Air Attack Bases in the State (the other two are in Redding and Porterville). The air attack base is operated and staffed by CAL FIRE (Nevada-Yuba- Placer Unit) Air Attack, and the U.S. Forest Service (Tahoe National Forest) Air Attack. CAL FIRE maintains two planes and the Forest Service maintains one plane. Two retardant air tankers are also based during the fire season at the air attack base. The strategic location of the Grass Valley air base assists CAL FIRE in achieving its goal of twenty-minute response times anywhere in California.

The White Cloud Helitack base, Tahoe Helitack, and the Washington Ridge Conservation Camp are three more wildfire-fighting resources established in Nevada County. The Helitack base has a dedicated crew and the helicopter has water drop capabilities. Washington Ridge Conservation Camp maintains five fire-fighting hand crews with up to eighteen individuals in each crew. The crews are a year-round resource providing fuel reduction assistance within Nevada County communities when they are not fighting wildfires.

The Nevada County Fire Marshal enforces, inspects and reviews County projects based on fire safety codes and regulations, unless the project is located within the jurisdiction of a local fire protection district with Fire Prevention staff. The Fire Marshal also reviews and recommends changes to the County fire safety regulations. The Nevada County Fire Chief's Association also participates in the review of community, County, and State fire safety codes and regulations.

The Fire Safe Council of Nevada County is a public benefit, non-profit 501(c)(3) corporation formed in 1998 by citizens concerned about the very high potential for catastrophic wildfire in our communities and adjacent forestland. The mission of the Fire Safe Council is: to work to reduce the risk of life and property loss from wildfire. The organization actively seeks public and private funding to provide a wide range of landowner assistance programs, services and community fuels reduction projects in order to reduce the fire danger for all Nevada County residents. The Fire Safe Council utilizes national and local public education programs to increase public awareness of the high potential for catastrophic wildfire in our communities and adjacent forestland. The Fire Safe Council specifically provides Firewise education and programs to enhance emergency preparedness for catastrophic wildfire; to promote, develop and retain formal Firewise Communities; to network with other Fire Safe Councils, Firewise Communities, government agencies and foundations for the benefit of citizens of Nevada County.

The Firewise Communities/USA® program is an opportunity available to fire-prone neighborhoods and communities in Nevada County. The goal of Firewise Community organizations is to encourage and acknowledge action that minimizes home loss to wildfire. Neighborhood and community chapters teach their residents how to prepare for a wildfire before it occurs. The program is scalable to communities large and small, developments and neighborhoods of all types. The Fire Safe Council of Nevada County has assisted a number of communities in Nevada County to become designated Firewise Community chapters.

Fire Protection Regulations

Fire science research indicates the area around a home and other buildings requires at least 100 to 200 feet of reduced and modified vegetation to minimize structure ignition from radiation and convection heat, and/or firebrands landing and accumulating directly on and immediately adjacent to the home. Fire science also indicates that structure fires can produce sufficient amounts of heat and firebrand to ignite wildland vegetation.

Title 4, Chapter 1 of the Nevada County Code requires new projects and construction to meet fire safety standards described in PRC 4290 and establishes requirements for fuel modification and emergency water supply, as well as minimum fire safe driveway and road standards. New structures built in Nevada County must also comply with fire safety building regulations. These building codes require the use of ignition-resistant building materials and establish design standards to improve the ability of a building to survive a wildfire.

State-mandated PRC 4291 requires the management of flammable vegetation around buildings or structures as a firebreak within a certain distance of the structure's footprint. This regulation applies to all buildings or structures in a mountainous area; forest-covered, brush-covered, or grass-covered lands; or any land that is covered with flammable material in the SRA and high or very high fire hazard severity zones.

Fire Protection Plans and Programs

Federal and State Plans

The Land and Resource Management Plan and the Sierra Nevada Forest Plan Amendment guide fire planning for the Tahoe National Forest. The Sierra Nevada Forest Plan Amendment provides

guidance for minimizing wildfires on Federal and tribal lands. California addresses wildfire issues through the California Fire Plan and its local version, the Nevada-Yuba-Placer Unit Fire Plan. These documents focus on reducing fire hazards by addressing pre-fire fuels management for strategic fire suppression. Roads, water storage, buildings, evacuation planning, and other factors associated with private property development are not included in these documents.

The Nevada County Fire Safe Council has developed a Community Wildfire Protection Plan based on the requirements of the Healthy Forest Restoration Act of 2003, which identifies measures that protect and restore forestland. The Community Wildfire Protection Plan coordinates with the Local Hazard Mitigation Plan on wildfire issues. The Community Wildfire Protection Plan was updated in February of 2025 by Scott Eckardt with Dudek for the Nevada County Office of Emergency Services (Final Nevada County CWPP 2025). The Community Wildfire Protection Plan provides educational opportunities for the public to understand the complex issues of fire and fuels and to engage in the decision-making process for community safety. The CWPP includes four annexes that focus on certain priorities within Nevada County. Annexes work together with this CWPP, with the County CWPP functioning as a broader umbrella document. Priorities identified in the annexes can also be considered priorities under this CWPP. There are four annexes included in the Nevada County CWPP (1) City of Grass Valley, (2) City of Nevada City, (3) Truckee Fire Protection District, and (4) Nevada County Resource Conservation District.

The 2025 Nevada County Local Hazard Mitigation Plan, in Part 2 Chapter 16, provides information pertaining to the specific hazards and vulnerabilities in Nevada County that wildfire poses. The plan includes wildfire history in Nevada County, values at risk, critical facilities in high and very high fire hazard severity zones and maps that geographically reflect the hazards and risks.

Severe Weather Hazards (WH)

Extreme Heat, Wind, Lightning, Snow (Blizzards), Freezing, Heavy Rain, Drought

Severe weather is generally defined as any destructive weather event and usually occurs in Nevada County as localized storms that bring power outages, isolation of vulnerable regions (single access road closures), and white-out conditions on roadways. Deep snow, strong winds and severe cold have also created unsafe living conditions for vulnerable members of our community. Rain, snow, lightning and high winds are likely to continue as one of the natural threats to Nevada County. More recently, extreme heat has been identified as a form of severe weather that needs to be addressed. Temperature extremes are likely to continue to occur annually in Nevada County. Though less likely to occur in the Eastern portion of the County at higher elevations, temperatures at or above 90°F are common most summer days in the western portion of the County.

Meteorologists can accurately forecast extreme temperature event development and the severity of the associated conditions with several days lead time. These forecasts provide an opportunity for public health and other officials to notify vulnerable populations, implement short-term emergency response actions, and focus on surveillance and relief efforts on those at greatest risk. Designating and developing emergency cooling facilities can enhance the resilience and safety of communities. The California Climate Adaptation Strategy, citing a California Energy commission study, States that “over the past 15 years, heat waves have claimed more lives in California than all other declared disaster events combined.” This study shows that California is getting warmer,

leading to an increased frequency, magnitude, and duration of heat waves. The entire population of Nevada County (102,241) is exposed to extreme heat events. Extreme heat events have potential health impacts including injury and death. The following health hazards are related to extreme heat (CDC 2022b):

- *Heat exhaustion* is the body's response to an excessive loss of water and salt, usually through excessive sweating. Symptoms can include headache, cramping, dizziness, and weakness.
- *Heat stroke* is the most serious heat-related illness. It occurs when the body can no longer control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106 °F or higher within 10 to 15 minutes. Heat stroke can cause permanent disability or death if the person does not receive emergency treatment

Pursuant to the 2025 Nevada County Local Hazard Mitigation Plan (LHMP), while every person in the County is exposed to extreme heat events, the following vulnerable populations tend to experience the most adverse impacts, and Figure 10.3 from the 2025 Nevada County LHMP below summarizes the effects of prolonged exposure to direct sunlight on the human body during extreme heat events (See Part 2, Chapter 11 of the 2025 Nevada County LHMP for additional information on each population below):

- Socially Vulnerable Populations
- Low Income Populations
- Infants and Children
- Older Adults
- People with Chronic Pre-Existing Health Issues
- Those who are Pregnant and Breastfeeding
- People Experiencing Homelessness
- Workers
- Athletes and People Playing Sports

Category	Heat Index	Effects on the Body
Caution	80°F - 90°F	Fatigue possible with prolonged exposure and/or physical activity
Extreme Caution	90°F - 103°F	Heat stroke, heat cramps, or heat exhaustion possible with prolonged exposure and/or physical activity
Danger	103°F - 124°F	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity
Extreme Danger	125°F or higher	Heat stroke highly likely

Source: (NWS 2021b)

Figure 10.3: Adverse Effects of Prolonged Exposure to High Heat

All critical facilities in the County are exposed to the extreme heat hazard. It is essential that these facilities remain operational during natural hazard events. Extreme heat events can cause short periods of utility failures, commonly referred to as brownouts, due to increased usage of air conditioners. Impacts on transportation infrastructure from extreme heat include softening or buckling of road pavement and deterioration of concrete structures, compromising the integrity of roadways or reducing their useful lifetimes. Similarly, bridge joints and other structural elements expand and contract during periods of extreme heat and cold, requiring maintenance and reducing their useful lifetimes (OPR, CNRA, CEC 2018).

Storms in Nevada County are generally characterized by heavy rain and strong winds. Heavy storms can cause both widespread flooding as well as extensive localized drainage issues. Lack of adequate drainage systems has become an increasingly important issue. In addition to the flooding that often occurs during these storms, strong winds when combined with saturated soil conditions can down large trees, and cause landslides and other slope failures. Some storms that cross Nevada County's diverse landscapes are accompanied by thunder and lightning. Lightning is a concern when it is cloud-to-ground type that can kill or injure people and destroy structures. Lightning is a particular concern during fire season due to the number of fires that are started by lightning.

According to the NOAA National Severe Storms Laboratory, winter weather kills hundreds of people in the U.S. every year, primarily from automobile accidents, overexertion, and exposure. Winter storm events are often accompanied by strong winds, creating blizzard conditions with blinding wind-driven snow, drifting snow and extreme cold temperatures and dangerous wind chill. They are considered deceptive killers because most deaths and other impacts or losses are indirectly related to the storm. People can die in traffic accidents on icy roads, heart attacks while shoveling snow, or of hypothermia from prolonged exposure to cold (NOAA 2023). High winds often accompany severe storms and thunderstorms and can cause significant property and crop damage, threaten public safety, and have adverse economic impacts from business closures and power loss. Nevada County is subject to significant, non-tornadic, winds. High elevations in Nevada County can experience wind gusts over 100 mph during severe winter storms. Mono winds, which blow downhill across the western slopes of the central Sierra Nevada from the northeast, can reach speeds in excess of 50 mph and in extreme cases as high as over 100 mph. Strong, dangerous, or damaging winds are defined as sustained wind speeds of 40 mph or greater, very windy winds are defined as sustained wind speeds between 30-40 mph, and windy winds are defined as sustained wind speeds of 20-30 mph. Winds also exacerbate fire conditions by drying out the ground cover, propelling embers at great distances ahead of the fire and increasing the ferocity of an existing fire.

Not specifically mentioned above were blizzards, which are the combination of wind and blowing snow. Blizzards occur when there is a wind velocity of 35 mph or more, temperatures below freezing, considerable blowing snow with visibility frequently below one-quarter mile prevailing over an extended period. A severe blizzard occurs when there is wind velocity of 45 mph, temperatures of 10 °F or lower, a high density of blowing snow with visibility frequently measured in feet prevailing over an extended period (NWS 2021a). The closure of roads and highways due to blowing snow is a common and annual event above elevations of 5,000 feet in the Sierra Nevada.

A drought is an event of prolonged shortages in the water supply, whether atmospheric (below-average precipitation), surface water or ground water. A drought can last for months or years and it can have a substantial impact on the ecosystem and agriculture of the affected region and harm to the local economy. In the case of environmental effects drought can cause lower surface and subterranean water-levels, lower flow-levels, increased pollution of surface water, the drying out of wetlands, more and larger fires, loss of biodiversity, worse health of trees and the appearance of pests and dendroid diseases. Economic losses include lower agricultural, forests, game and fishing output, higher food-production costs, lower energy-production levels in hydro plants, problems with water supply for the energy sector, disruption of water supplies for residential and agricultural use. Social costs include the negative effect on the health of people directly exposed to this phenomenon (heat waves), possible limitation of water supplies, increased pollution levels, high food-costs, and stress caused by failed harvests.

Climate Change Resiliency and Mitigation (CC)

An important factor affecting public safety and disaster management functions is climate change. The impacts of climate change pose an immediate and growing threat to California's economy, environmental and public health. From the north coast of California through the Sierra Nevada to the Mojave Desert, all of California will continue to experience effects of climate change in different ways, including increased likelihood of drought, flooding, wildfires, heat waves, severe weather, winter storms, and sea level rise. Climate change effects from drought can cause changes in rainfall, which may also impact ground water supply. When rainfall is less than normal for several weeks or more, the flow of surface water declines and water levels in lakes and reservoirs fall, and the depth to water in wells increases. Drought and severe weather events caused by climate change can also impact food production from crops, which may lead to food security issues.

With the passing of Senate Bill 379, local jurisdictions are required to review and update as necessary their Safety Element to address climate adaptation and resiliency strategies applicable to that city or county. Senate Bill 379 requires the update to include a set of goals, policies and objectives based on a vulnerability assessment, identifying the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts.

Climate change is the change in measures of weather patterns over long periods, from decades to millions of years. More specifically, it may be a change in average weather conditions such as temperature, rainfall, snow, snowline elevation, ocean and atmospheric circulation or in the distribution of the weather around the average. While the Earth's climate has cycled over its 4.5-billion-year age, these natural cycles have taken place gradually over millennia, and the Holocene, the most recent epoch in which human civilization developed, has been characterized by a highly stable climate, until recently. Human-induced climate change has been rapidly warming the Earth at rates unprecedented in the last 1,000 years.

Since industrialization began in the 19th century, the burning of fossil fuels (coal, oil and natural gas) at escalating quantities has released vast amounts of carbon dioxide and other greenhouse gases responsible for trapping heat in the atmosphere, increasing the average temperature of the Earth. Secondary impacts include changes to precipitation patterns, global water cycles, melting glaciers, melting ice caps and rising sea levels. Climate change will increase the severity of existing

natural hazards such as wildfire, flooding, and extreme weather conditions affecting people and landscapes. By the end of the century, average temperatures in the Sierra Nevada are projected to warm by 6 °F to 10 °F, enough to raise the divide between rain and snow by 1,500 to 3,000 feet. Future precipitation totals are less certain, and long-term changes may not be more than about 10 to 15 percent. Still, high and low precipitation extremes are projected to increase markedly and simultaneously. These changes will depend on many factors, including elevation within the mountain range, with quicker warming trends and precipitation changes at highest elevations (State of California 2018). The amount of change vary with elevation, with quicker warming trends and precipitation changes at highest elevations (State of California 2018). Loss of snowpack and overall drying will lead to increased winter stream flows and floods, and to reductions in warm season flows. Increased incidence of winter rainfall, cool season snowmelt episodes, and rain-on-snow events are projected to increase winter flooding and the average winter stream flow rates. Flood risks are projected to increase within and downstream from the Sierra Nevada as climate change increases storm intensities and temperatures. However, accurate estimates of the coming changes in flood characteristics (e.g., flood frequencies and magnitudes, flood durations, seasonal timing) have yet to emerge (State of California 2018).

To provide a clearer picture of the effects of climate change on the diverse regional landscapes, California's Adaptation Planning Guide has divided California into eleven different regions based on political boundaries, projected climate impacts, existing environmental setting, socioeconomic factors and regional designations. Nevada County falls within the North Sierra Region characterized as a sparsely settled mountainous region where the region's economy is primarily tourism-based. The region is rich in natural resources, biodiversity, and is the source for the majority of water used by the rest of the State. In the North Sierra Region and Nevada County Planning Area average temperatures for January are projected to increase by 2.5ºF to 4ºF by 2050 and July temperatures are projected to increase by 4ºF to 5ºF by 2050. Average precipitation declines are projected for the region and will vary north to south from 3 to 6 inches by 2050. By 2050, the annual number of heatwaves per year is expected to increase by two. Snowpack levels are projected to decline dramatically, and wildfires are projected to increase up to 10.5 times throughout the region, with the highest risks expected in the northern and southern parts of the region. Recognizing the current reality that climate change may lead to an increase in the frequency and severity of existing natural hazards, which may also lead to an increase in the frequency of events that may pose risks and call for evacuations, could be problematic as a result of an increasing population of people moving to higher elevations, such as Nevada County. Over the long-term, reducing greenhouse gases can help make these changes less severe, but the changes cannot be avoided entirely. While hazardous materials releases are not a natural hazard, they may still be indirectly impacted by climate change. For example, damage to infrastructure from heat and flooding and unsafe transportation conditions associated with severe weather could increase due to climate change.

Pursuant to the 2025 Nevada County Local Hazard Mitigation Plan update that was completed in 2025, the climate change hazard was eliminated and instead incorporated climate change effects in the Probability and Analysis of Future Conditions in each hazard profile (See Part 1, Section 1.2.2 for additional information).

The following is a list of how climate change and its impacts may exacerbate natural hazards in Nevada County in the future:

- Frequency, intensity, and duration of extreme heat events and heat waves, which are likely to increase the risk of mortality and morbidity due to heat-related illness and exacerbation of existing chronic health conditions. Those most at risk and vulnerable are elderly individuals with chronic health issues, such as heart and lung disease, diabetes, and mental illnesses, infants, the socially or economically disadvantaged, and those who work outdoors.
- Higher temperatures will melt the Sierra snowpack and drive the snowline higher, resulting in less snowpack water storage for water supply later in the season.
- Intense rainfall events, periodically ones with larger than historical runoff, will continue to affect Nevada County with more frequent and /or more extensive flooding. Flooding projections for 100 and 500-year events reflect higher frequencies.
- Storms and snowmelt may coincide and produce higher winter and/or spring runoff initiating downstream flooding.
- Warmer temperatures, reduced snowpack, and earlier snowmelt can be expected to increase wildfire and wildfire intensity potential through increased plant moisture stress (grasses drying sooner, tree and shrub water content decreased), increased insect populations; both of which affect forest health and reduce forest resilience to wildfires. An increase in wildfire intensity and extent will increase public safety risks, property damage, fire suppression and emergency response costs to government, air quality impacts from smoke, watershed and water quality impacts, vegetation conversions and habitat fragmentation, and the ability to hold ground water in the upper watersheds.
- With the increase in wildfire risks that leave slopes bare of vegetation, and severe weather events in the form of heavy rain, landslides and or debris/mudflows are also a potential exasperated safety hazard.
- Warmer temperatures have the potential for increasing both the species and quantities of insect pests that can significantly impact agricultural operations and production. For example, several species of pine bark beetles have gone from one hatch per year to three or four hatches per year due to milder temperatures and shorter winter-snow season.
- Long periods of drought can adversely impact the environment and agriculture through lowered water tables and reduced water supplies affecting crop yields and forest resources. The availability, access and stability of food resources and production could be negatively affected impacting Nevada County agricultural operations during prolonged drought periods.

In addition to the mitigation strategies identified in the Local Hazard Mitigation Plan to reduce climate change impacts pursuant to each hazard profile, the County has adopted an Energy Action Plan (EAP) that provides an analysis of the energy use in the unincorporated area of the County, and a roadmap for accelerating energy efficiency, water efficiency, and renewable energy efforts that are already underway in Nevada County. Community members and the County have opportunities to save energy by addressing inefficiencies of current energy-consuming systems, operations, and behaviors. The EAP was developed to provide a broad view of energy use in the County, to set energy and water-energy saving goals, to recommend actions that result in short and

long-term energy savings, and to educate the community on existing resources designed to save utility customers energy. Efforts to implement the EAP are in place by working groups.

Over recent years, the County has experienced increasingly frequent extreme weather events, leading to the Board of Supervisors adopting Climate Resilience as a priority objective in January 2023. In early 2024, Nevada County, in partnership with the Rancheria Nisenan tribe and Sierra Business Council, accepted a grant from the State of California's Regional Resilience Grant Program, which designated specific funds for the development of a strategic plan to mitigate greenhouse gas emissions and increase local resilience. In addition to that current funding, developing the Roadmap will position the County to be eligible for future state and federal dollars, including the $10 billion climate bond that California voters passed through Proposition 4 in November 2024. Those potential funds will allow the County to continue to implement and advance projects to reduce greenhouse gas emissions and increase community resilience to climate impacts such as fires, smoke, heat, and drought. The Resource Resiliency Roadmap ("Roadmap") is a strategic plan currently under development that will provide a framework for the County to increase the resiliency of our local resources and community in a changing climate. The Roadmap will set greenhouse gas emissions reduction goals, based on current and projected emissions data collected as part of the RRR development process. Building on work from the General Plan, Recreation and Resilience Master Plan, and the Office of Emergency Service's Roadmap to Resilience (which includes the Community Wildfire Protection Plan and Local Hazard Mitigation Plan), the RRR will create an index of potential actions that will increase community resiliency to the impacts of climate change, such as extreme heat, wildfires, floods, and drought. The RRR will not create new mandates or regulations, but will serve as guidance for the County as it moves forward with its goals of lowering greenhouse gas emissions and increasing resilience to the impacts of extreme weather.

Additionally, the Nevada County Community Development Agency is leading the development of the first-ever Recreation and Resiliency Master Plan to identify recreation needs and articulate a long-term vision for managing open spaces and recreation resources that range from local parks, playgrounds, sports fields, and facilities to rivers, trails, and outdoor access. The Nevada County Recreation and Resiliency Master Plan (Plan or Master Plan) presents a cohesive and comprehensive approach for recreation in Nevada County. By coordinating recommendations and priorities with aligned planning efforts, the Plan advances cross-jurisdictional solutions that promote community health and safety, economic development, environmental sustainability, and resiliency to reduce the impact and risk of natural disasters like wildfire, flooding, and extreme heat. The Plan summarizes key threats facing the county and overlays them with the recreation network to identify which areas may be most impacted in order to inform priorities.

Environmental Justice and Vulnerable Populations (EJ)

In 2016, Senate Bill 1000 was signed into law requiring cities and counties that have disadvantaged communities to incorporate environmental justice policies into their General Plans, either in a separate environmental justice element or by integrating related goals, policies, and objectives

throughout other elements of the General Plan. The California Department of Environmental Protection defines Environmental Justice in the following text: "The principles of environmental justice call for fairness, regardless of race, color, national origin or income, in the development of laws and regulations that affect every community's natural surroundings, and the places people live, work, play and learn."

The concept of environmental justice encompasses different aspects of land use, safety, housing, conservation and recreation planning. This element promotes the involvement of community members in the planning and decision-making processes that affect their environment, includes specific policies to improve air quality, access to food and public facilities, and provide safe and sanitary housing within these communities, and identifies communities that are disproportionately affected by pollution and lack access to resources. The purpose of the Environmental Justice element is to address and mitigate the unique or compound health risks faced by disadvantaged communities, ensure equitable access to environmental benefits, public facilities, and services for all residents, and facilitate meaningful civic engagement and ensure that community members have a voice in decisions affecting their environment and health.

Most often environmental justice goals and policies addresses inequitable exposure to pollutant and the siting of locally unwanted land uses. More broadly, environmental justice addresses land-use patterns such as the location of industrial and commercial land uses that have the potential to adversely impact vulnerable populations and communities. Environmental justice also addresses the lack of certain land uses, amenities and social and physical infrastructure to serve vulnerable populations and communities. These populations tend to be affected disproportionately, in the ability to keep their homes cool during an extreme heat event, or the ability to recover after a wildfire or flood event that damages or destroys their home. Vulnerable populations may also face additional challenges of not having resources available to assist with hazardous conditions, such as being able to evacuate, or to adapt to public safety power shutoff (PSPS) events by finding alternative practices or power sources.

The term "vulnerable population and community" includes disadvantaged communities based on geographic, socioeconomic, public health and environmental hazards criteria. It is further defined to include, but is not limited to:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation; or
- Areas with concentrations of people that are of low-income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment; or
- Populations that are vulnerable in their ability to prepare for, react to, or recover from emergency situations such as those with communication limitations or barriers (lack of phone and/or wi-fi access or language), and individuals, neighborhoods, or institutions, with limited or no mobility.

As stated in the introduction of this chapter, the purpose of the Safety Element is to reduce short and long-term loss of life, injuries, and damage to property resulting from natural and human-caused public safety hazards including flooding, geologic and seismic hazards, fire hazards, severe weather and the additional consequences of climate change. The Safety Element identifies areas where private and public decisions on land use, appropriate levels and locations of public services and the dissemination of educational materials for both preparedness and response are addressed. In addressing the different safety hazard potentials in Nevada County, it is imperative to address responses to the safety needs of vulnerable populations and communities.

Goals, Policies, and Programs

The following sections identify the eleven primary types of goals, policies and programs of the Safety Element, which are grouped by subject categories as follows:

- Emergency Preparedness (EP)
- Geologic Hazards/Seismic Activity (GH)
- Flood Hazards (FH)
- Airport and Military Airspace Hazards (AH)
- Hazardous Materials (HM)
- Mining Hazards (MH)
- Public Safety Services and Facilities (SF)
- Fire Hazards and Protection (FP)
- Severe Weather Hazards (WH)
- Climate Change Resiliency and Mitigation (CC)
- Environmental Justice and Vulnerable Populations (EJ)

Emergency Preparedness (EP)

GOAL EP-10.1
Provide a coordinated approach to hazard and disaster response preparedness.

Policy EP-10.1.1 Ensure a coordinated, interagency program for disaster preparedness that will facilitate Federal and State disaster assistance by planning for the reduction of the effects of natural hazards and training for disaster management.

Policy EP-10.1.2 The Local Hazard Mitigation Plan (LHMP), adopted by the County in December 2024, is reviewed and updated every five years in accordance with the Federal Disaster Mitigation Act of 2000 and Government Code 65302.6. The LHMP shall serve as the implementation program for the coordination of hazard planning and disaster response efforts within the County.

The Local Hazard Mitigation Plan is incorporated into this Safety Element by reference and includes mitigation strategies for wildland fire hazards. The LHMP shall be reviewed annually, or as necessary, along with the County's mutual aid agreements and existing wildland fire-related codes and ordinances to address the hazards of development in the wildland urban interface and to ensure compliance with the Federal Disaster Mitigation Act of 2000 and State Fire Code, as it exists or as may be amended.

Policy EP-10.1.3 The Earthquake Chapter of the LHMP shall be coordinated with regional plans for earthquake preparedness through the local and State Office of Emergency Services.

Policy EP-10.1.4 Provide for adequate evacuation routes in areas of high fire hazard, high potential for dam failure, earthquake, seiches, avalanche, flooding or other natural disaster.

Policy EP-10.1.5 Sustain the continued efforts in building public awareness of the Nevada County Emergency Operations Plan, and Community Emergency Preparedness and Evacuation Guides, through the local Office of Emergency Services, as the focus for planning for emergency evacuation of threatened populations.

Policy EP-10.1.6 Transportation routes that are designated on the General Plan Land Use Maps as interstates, freeways, highways, and other principal arterial routes shall be considered primary evacuation routes on a Countywide basis. Such routes provide the highest levels of capacity and contiguity and serve as the primary means for egress from the County.

The routes designated on the General Plan Land Use Maps as minor arterial or major collector routes shall be considered secondary evacuation routes on a Countywide basis. These routes supplement the primary evacuation routes and provide egress from local neighborhood and communities.

Policy EP-10.1.7 Prioritize the creation and maintenance of private road districts on existing private roads to ensure emergency ingress and egress meets Nevada County and CAL FIRE road and driveway standards and maintains these standards. Private road districts shall include the assurance that emergency ingress and egress will be maintained.

Policy EP-10.1.8 Support the development and maintenance of Countywide and local emergency evacuation plans.

Policy EP-10.1.9 Support the development of Community Emergency Preparedness and Evacuation Guides by local community members in collaboration with the County Office of Emergency Services.

Policy EP-10.1.10 Emergency preparedness planning shall include recovery plans to support the people, services and environments affected by the emergency event.

Policy EP-10.1.11 Mitigate development in areas of High and Very High Fire Hazard Severity Zones by incorporating into conditions of approval the

most current data in order to assure appropriate fuel modification around the development and emergency ingress and egress for residents, visitors and emergency services. Identify at least two points of access for day-to-day access and evacuation purposes, and make improvements to develop, upgrade, and maintain these routes to ensure adequate capacity of evacuation routes.

Policy EP-10.1.12 Continue to work with CAL FIRE, California Office of Emergency Services and Nevada County Office of Emergency Services to adopt by ordinance the most current Fire Hazard Severity Zones Map, (current Map adopted July 8, 2025) and adopt the most appropriate fire-resistant building material standards and fuel modification/vegetation management requirements for each zone as a basis for project review in accordance with Federal, State and local standards.

Policy EP-10.1.13 Nevada County shall take actions, such as applying for and securing FEMA grants, that address recovery and redevelopment after a large fire. The County's intent shall be to address the reduction of future vulnerabilities to fire hazard risks through site preparation, redevelopment layout design, fire resistant landscape planning, and fire retarding building design and materials.

Policy EP-10.10.1.14 The County shall support the Nevada County Office of Emergency Services (OES) with the implementation of the 2024 Nevada County Evacuation Study for any and all evacuation plans.

Policy EP-10.10.1.15 The County shall support the Nevada County Transportation Commission with the implementation of the 2022 READY Nevada County Extreme Climate Event Mobility and Adaptation Plan for any and all evacuation plans.

Geologic Hazards / Seismic Activity (GH)

GOAL GH-10.2
Minimize injury and property damage due to geologic and seismic hazards.

Policy GH-10.2.1 Ensure that new construction meets current structural and safety standards.

Policy GH-10.2.2 Continue to coordinate with the State Department of Conservation – California Geological Survey, the State Office of Emergency Services and other appropriate Federal, State and local agencies and incorporate the most current data concerning the following as the basis for the County's Site Development Standards, and project site plan review:

a. geologic hazards; and
b. seismic hazard data for sensitive land uses such as schools, medical facilities, high-density residential uses, and intensive commercial uses.

The project review shall consider the need to mitigate development in such areas in accordance with Federal, State and local standards.

As part of the project site review process, require sufficient soils and geologic investigations to identify and evaluate the various geologic and seismic hazards that may exist for all proposed development, including subdivisions**.** Such investigations shall be required within an area determined to be seismically active by the State Department of Conservation – California Geological Survey, or within an area having potential geologic hazards, including slope instability and excessive erosion.

Flood Hazards (FH)

GOAL FH-10.3
Reduce the potential for injury, property damage, and environmental damage from flooding.

Policy FH-10.3.1 Implement development standards to ensure new construction does not result in increased peak run-off or flood potential.

Policy FH-10.3.2 Avoid increases in downstream flooding potential by protecting natural drainage and vegetative patterns through project site plan review, application of Comprehensive Site Development Standards, use of clustered development and project subdivision design. The Comprehensive Site Development Standards shall include measures applicable to all discretionary and ministerial projects to avoid downstream flooding resulting from new development. Such measures, shall include, but not be limited to:

a. Avoidance of stream channel modifications;
b. Avoidance of excessive areas of impervious surfaces; and
c. Use of on-site retention or detention of storm water.

Policy FH-10.3.3 Nevada County shall continue to work with appropriate local, State and Federal agencies, and in particular, the Federal Emergency Management Agency and the National Flood Insurance Program in maintaining the most current flood hazard and flood plain information as a basis for project review in such areas in accordance with Federal, State and local standards.

Policy FH-10.3.4 Owners of dams under State jurisdiction shall submit their Emergency Action Plans including the Inundation Map and subsequent updates to the Nevada County Office of Emergency Services at the time of the Local Hazard Mitigation Plan's next update and with each 5-year update thereafter.

Airport and Military Airspace Hazards (AH)

GOAL AH-10.4
Ensure the safety and compatibility of land uses in the vicinity of airports and military airspace.

Policy AH-10.4.1 Maintain land use and development patterns in the vicinity of airports that reflect and are consistent with policies for the different airport land use compatibility zones within the defined Airport Influence Area*s* as set forth by the Nevada County and Truckee Tahoe Airport Land Use Compatibility Plans (ALUCPs).

Policy AH-10.4.2 Through appropriate zoning regulations, the County shall enforce airport ground and height safety areas, and land use compatibility standards, consistent with the ALUCPs adopted by Nevada County and Truckee Tahoe Airport Land Use Commissions, as those plans are currently in effect.

Policy AH-10.4.3 Ensure early notification to the military of proposed discretionary development projects within the Military Operation Area (MOA) by implementing California Government Code Sections 65352 (a)(5) and (6)(A), 65940, and 65944 to facilitate the exchange of project related information pertinent to military operations within the MOA.

Hazardous Materials (HM)

GOAL HM-10.5
Protect public health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

Policy HM-10.5.1 Provide means for the identification, safe use, storage, transport, and disposal of hazardous materials, including household hazardous waste.

Policy HM-10.5.2 When siting new on and off-site hazardous waste management facilities, the County shall follow the procedures set forth in California State Health and Safety Code Division 20, Chapter 6.5, Hazardous Waste Control, with the objective of minimizing safety hazards associated with hazardous material and hazardous waste incidents.

Policy HM-10.5.3 The Nevada County Hazardous Materials Area Plan (Area Plan) shall provide direction and establish the policies, responsibilities and procedures required to protect the health and safety of Nevada County's citizens, the environment and public and private property from the effects of hazardous materials emergency incidents. As the principal guide for agencies of Nevada County, the Area Plan shall maintain consistency with the National Incident Management System (NIMS), which is the framework for incident management where government and private entities at all levels can work together effectively. Operational as well as a reference document, the Area Plan may be used for pre-emergency, as well as a resource for emergency response.

Mining Hazards (MH)

GOAL MH-10.6

Protect public health, safety, natural resources, and property from the potential impacts of existing legacy mines due to their abandonment, contamination or physical hazards.

Policy MH-10.6.1 The County will encourage the clean-up of sites contaminated by mine wastes or other hazardous materials.

Policy MH-10.6.2 The County will actively promote prompt clean-up or remediation of properties contaminated by mine waste or other hazardous materials and shall not grant any discretionary or ministerial land use approvals to develop or change boundaries or reconfigure parcels believed to be contaminated, unless and until the nature, extent, type and location of the contamination is determined and satisfactory arrangements are made for clean-up or remediation, in accordance with Nevada County standards or State regulations.

Policy MH-10.6.3 The County shall require Phase I Environmental Site Assessments (ESAs) consistent with ASTM standards for proposed development projects requiring discretionary approval on or adjacent to properties with known or suspected legacy mining activities.

Policy MH-10.6.4 The County shall support the Department of Environmental Health in its advisory role to developers regarding environmental site assessments and appropriate agency referrals for oversight and remediation.

Policy MH-10.6.5 The County shall condition discretionary approval on the identification, evaluation, and mitigation of environmental or physical hazards related to legacy mining. Physical hazard

mitigation shall be reviewed and enforced through the appropriate County Departments.

Public Safety Services and Facilities (SF)

GOAL SF-10.7
Ensure adequate public safety services and facilities through development standards, development fees, and land use patterns.

Policy SF-10.7.1 Maintain appropriate levels of safety and protection services and facilities on land and water for both *Community* and *Rural Regions*.

Policy SF-10.7.2 The following shall be included in the adopted Comprehensive Site Development Standards as the basis for site plan review:

a. Standards to enhance the ability of the County law enforcement personnel to protect multi-family, commercial, industrial, and business park uses, including but not limited to:

(1) exterior lighting of building and parking areas; and
(2) vegetation management to provide adequate view of parking areas, building entrances, other areas accessible to the public and maintenance of defensible space.

b. As provided for in the Nevada County Code, continue to implement both road and private driveway standards to ensure adequate site and building access for fire and emergency medical access.

Policy SF-10.7.3 Land use patterns and development standards shall minimize hazards resulting from wildfire, flooding, earthquake, slope failure, avalanche, and other natural occurrences.

Policy SF 10.7.4 Encourage appropriate levels of consolidated services to provide for efficiency and cost containment.

Policy SF-10.7.5 The County will encourage joint service agreements and consolidation of police, fire, and emergency services between the County, cities, and service districts.

Program SF-10.7.1 With participation from other local, State, and Federal emergency services entities, the County shall inventory, identify, and maintain the existing public and private facilities that provide or can be improved to provide

temporary safety zones such as fire evacuation shelters and warming/cooling centers in times of emergencies. These facilities have been identified in the Nevada County Community Wildfire Protection Plan (CWPP).

GOAL FP-10.8
Enhance fire safety and improve fire protection effectiveness through infrastructure and service improvements.

Policy FP-10.8.1 Ensure County-maintained roads meet design standards for current or anticipated uses, as designated on the General Plan Land Use Map. Maintain and update Nevada County road standards for both public and private roads to adequately address emergency ingress and egress.

Policy FP-10.8.2 As a condition of development, require long-term maintenance of private roads to meet current standards, including roadside vegetation management, as part of a formal private road association or similar entity.

Policy FP-10.8.3 Projects requiring a traffic study shall include in such study an assessment of the current emergency evacuation capacity of the public and/or private roads that serve the proposed project, and recommended mitigation that will increase the evacuation capacity, if needed.

Policy FP-10.8.4 Encourage fire protection agencies to determine appropriate levels of fire protection facilities and services for both *Community* and *Rural Regions*.

Policy FP-10.8.5 Encourage the upgrading of facilities within existing fire protection districts and encourage the expansion of existing districts where warranted by the population density allowed under the General Plan.

Policy FP-10.8.6 Locate new critical facilities outside of High and Very High Fire Hazard Severity Zones, unless alternatives are not available or feasible. (Refer to currently adopted Fire Hazard Severity Zone Map and the Local Hazard Mitigation Plan).

Policy FP-10.8.7 The County shall support community or County-wide water supply systems and the ongoing maintenance of water supply infrastructure for fire protection.

GOAL FP-10.9
Reduce fire risk to life and property through land use planning, ordinances, and compliance programs.

Policy FP-10.9.1 Nevada County shall apply and enforce State of California Public Resource Code 4290 and 4291 through County-adopted ordinances, which includes minimum fire safety standards related to defensible space that are applicable to State responsibility area lands and lands classified and designated as very high fire hazard severity zones as reflected on current and future maps defined in subdivision (i) of Section 51177 of the California State Government Code.

Nevada County shall continue to adopt revisions to the California Fire and Building Codes and other standards, which address fire safety, as they are approved by inspection organizations and the State of California. Review, revise, and/or adopt existing or new local codes, ordinances, and Fire Safe Standards to reflect contemporary fire safe practices.

Policy FP-10.9.2 Review wildfire safety policies, codes, and ordinances, and report the findings to the Board of Supervisors with County OES review of the Local Hazard Mitigation Plan (also see EP-10.1.2).

Policy FP-10.9.3 Recognize the value of the "same practical effect" or "exception" process (Petition for Exceptions) where strict application of the requirements may not be achieved but the intent of the requirements may be achieved through application of other measures. Allow applicants to submit a Petition for Exceptions application to allow for deviations to the standards when same practical effects provide adequate safety and effective ingress and egress.

Policy FP-10.9.4 New development and subdivisions shall include adequate emergency infrastructure that includes but is not limited to, emergency water facilities to assist and support wildfire suppression, and adequate ingress and egress routes to facilitate emergency responders' access and the evacuation of inhabitants. Provisions shall be made on applicable projects to require the maintenance of emergency infrastructure and facilities.

Policy FP-10.9.5 Land use patterns and development standards shall minimize fire hazards, and shall be reviewed and revised, as needed, consistent with the five-year update of the Safety Element.

Policy FP-10.9.6 Fire safe measures shall be commensurate with the response time for emergency services (e.g. longer distance to a fire department requires more stringent mitigation measures).

Policy FP-10.9.7 As part of the coordinated and centralized fire safe reviews, the following shall continue to be included in the Comprehensive Site Development Standards as the basis for site plan review:

a. Standards for roads and private driveways, which will enhance the ability of emergency service providers to respond to structural and wildland fires and calls for medical and law enforcement emergency assistance. The standards shall provide for secondary road access to new projects where necessary for fire safety or emergency access;
b. Each property outside of a developed water system shall maintain sufficient usable water storage to provide wildfire and structure protection on the property;
c. Sign and address standards, which will provide for easy identification of roads, streets, driveways and buildings by emergency service providers; and
d. Standards to reduce hazards associated with the structural and wildland intermix, including:

    (1) Fuel modification and vegetation management procedures adjacent to structures and fuel breaks where appropriate;
    (2) Vegetation management adjacent to roads and driveways to provide safe travel for residents, and firefighting, medical and police personnel; and
    (3) Building setbacks.

Policy FP-10.9.8 In those areas outside *Community Regions*, which are identified as having a high to very high fire hazard severity and/or lack adequate year-round fire protection facilities, maintain low-density land use designations (Rural or Forest) in order to minimize the potential fire hazard.

Policy FP-10.9.9 The County shall consult the fire hazard severity zones map during the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures that may include development clustering, fire breaks, and fire-resistant building design and materials.

Policy FP-10.9.10 Fire hazard risk mitigation shall be considered in all land use and zoning decisions, environmental review, subdivision review, and the provision of public services.

Policy FP-10.9.11 Encourage the planning and coordination with local, regional, and state agencies for recovery from a large-scale wildfire disaster, focusing on temporary housing needs, emergency workers, and emergency response personnel.

Policy FP-10.9.12 Encourage the creation of wildfire-resistant communities by supporting the implementation of community wildfire protection plans and wildfire fuel load reduction measures in coordination with the appropriate government, community group, or non-profit organization and California Department of Forestry and Fire Protection (CAL FIRE).

Policy FP-10.9.13 Nevada County shall encourage redevelopment after wildfires to meet current California Building Standards Code, California Fire Code, and California Fire Safe Regulations to reduce future vulnerabilities to fire hazards through site preparation, layout design, fire-resistant landscaping, and fire-retarding building design and materials.

Policy FP-10.9.14 New developments shall not diminish fire protection and prevention services, including the inspection and enforcement of vegetation management and fire-safe regulations.

Policy FP-10.9.15 Critical and essential facilities shall be sited outside of fire-prone areas wherever possible. If infeasible, fire-safe design elements shall be incorporated into the design of these facilities.

GOAL FP-10.10
Encourage fire safety education and support programs to promote participation, voluntary compliance, and community awareness of fire safety issues.

Policy FP-10.10.1 Make educational materials available to the public regarding environmental regulations, guidelines, and protection measures that property owners should be aware of and are responsible for when planning and undertaking fuels management activities.

Policy FP-10.10.2 Increase public education and outreach on wildfire safety issues through the Nevada County Office of Emergency Services and the fire safety organizations of Nevada County, and by collaborating with community and business associations.

Policy FP-10.10.3 Support the Nevada County Office of Emergency Services and the Fire Safe Council's public education efforts to inform and create a better understanding with the public and with the architectural and building industry. Communicate the benefits of reducing vulnerabilities to wildfire risks through site design, defensible space and building material/design options available with ignition-resistant building materials.

Policy FP-10.10.4 Encourage and support the effort for local neighborhoods and communities to become certified under the Firewise Communities USA® certification program through the Fire Safe Council.

Policy FP-10.10.5 Continue to support existing Firewise communities. Create and maintain incentives such as green waste programming that involves no cost chipping, green waste bins, and free drop offs at the County transfer station to encourage voluntary compliance with fire safe regulations.

Policy FP-10.10.6 The County shall work with the California Department of Insurance to obtain recognition that Nevada County has developed fire safety programs that promote compliance with fire safety regulations, which may help to address homeowner fire insurance challenges.

Policy FP-10.10.7 The County shall work with other jurisdictions and agencies to prepare for public safety power shutoffs, and shall be supportive of viable plans to provide resources for the community and vulnerable populations during and after public safety power shutoff events.

GOAL FP-10.11
Reduce fire severity and intensity through fuels management.

Policy FP-10.11.1 The County shall encourage the use of prescribed burning as a management tool for hazardous fuels reduction, timber management, livestock forage production and enhancement of wildlife habitat, consistent with seasonal State and local regulations.

Policy FP-10.11.2 Consistent with Senate Bill 1122 (2012) and Senate Bill 859 (2016), Nevada County shall facilitate public and or private entities' efforts to establish bio-mass facilities in the County, with the goal of reducing forest fuel loads, reducing the wildfire hazard risk and creating electrical power.

Policy FP-10.11.3 The County shall cooperate with Federal, State, community fire safety groups and other fire protection entities in fire hazard risk reduction projects in zones of high and very high fire hazard severity zones, either prior to or as a component of the project review.

Policy FP-10.11.4 The County shall support fuel modification across public and private forestlands to reduce the potential for catastrophic wildfires, with the highest priority directed toward reducing hazardous fuel levels in the wildland urban interface (WUI). The County shall, in coordination with other agencies, identify, create and maintain fuel breaks, such as the Ponderosa West Grass Valley Defense Zone.

Policy FP-10.11.5 The County shall be supportive of programs for affordable, residential green waste disposal opportunities to encourage vegetation management on private property.

GOAL FP-10.12
As desirable and as funding becomes available, the County should consider Programs FP-10.12.1 through FP-10.12.10, prioritized by the order in which they appear.

Program FP-10.12.1 Maintain the cooperative relationship between the Nevada County Community Development Agency and the Nevada County Fire Marshal, and provide funding for the appropriate staffing of the County Fire Marshal services to provide oversight and implement fire protection policies.

Program FP-10.12.2 Support the Nevada County Office of Emergency Services and the other fire safety organizations of Nevada County as significant contributors of providing fire safe education and information to the residents of the County.

Program FP-10.12.3 Coordinate with the Nevada County Office of Emergency Services and the other fire safety organizations in their efforts to update and maintain the Countywide Community Wildfire Protection Plan. These efforts include:

a. Identifying areas within the County that potentially could be the source of large and damaging wildfires; and
b. Prioritizing those potentially hazardous areas for grant funds to reduce the fire hazard and risk.

Program FP-10.12.4 Support community chipping programs and services.

Program FP-10.12.5 Sponsor workshops that develop cooperative efforts between businesses, professional services, and governmental agencies in the fuel and resource management industry, including those that provide fire-safe operations, fuel management services, and environmental compliance services.

Program FP-10.12.6 Develop a plan to increase the County's overall pavement condition index (PCI) in a manner consistent with Board of Supervisors' objectives and as outlined in the Capital Improvement Plan.

Program FP-10.12.7 Review and update the Nevada County Community Wildfire Protection Plan (CWPP) and Nevada County Local Hazard Mitigation Plan (LHMP) to be consistent with the current processes included within each, and encourage the Board of Supervisors to reconvene at least every five years for a comprehensive review of the effectiveness of the fire protection policies, codes, and ordinances.

Program FP-10.12.8 Support fire safety organizations and other public and private entities in their effort to create biomass reutilization opportunities.

Program FP-10.12.9 Coordinate with the Nevada County Office of Emergency Services (OES) to provide community level and individual outreach and education for landowners around hazardous fuel reduction programming, defensible space and roadside vegetation clearing, green waste programming, and home-hardening techniques based upon current science, management guidelines, and policies to reduce wildfire hazards.

Program FP-10.12.10 Increase vegetation management along County roadways in a manner consistent with Board of Supervisors' objectives and the Capital Improvement Plan, while encouraging the protection of mature, fire resistant street side trees as feasible.

Severe Weather Hazards (WH)

GOAL WH-10.13
Minimize injury and property damage due to severe weather hazards (rain, snow, lightning, and high winds).

Policy WH-10.13.1 Ensure a coordinated, multi-jurisdictional preparedness program that will educate residents of Nevada County on how to best prepare for the hazards that severe weather can cause.

Policy WH-10.13.2 Continue to promote public awareness of emergency preparedness for potential severe weather hazards by:

a. Providing education opportunities to local community groups; and
b. Distributing the latest educational documents on emergency preparedness.

Policy WH-10.13.3 Continue to maintain qualification as a National Weather Service StormReady® County.

Policy WH-10.13.4 Collaborate with the Nevada County Office of Emergency Services (OES) and Emergency Operations Center (EOC) and all other appropriate local, State and Federal agencies, and local community organizations to establish and maintain weather shelters in Nevada County to reduce exposure to extreme heat, cold, and smoke. (See also Program SF-10.7.1)

Policy WH-10.13.5 Support Nevada County efforts to establish and maintain one or more community resilience hubs to better support the needs of vulnerable populations during extreme climate events, such as extreme heat days and smoke events, including, but not limited to health assistance and resources, food refrigeration, charging stations, basic medical supplies, other emergency supplies, and language-appropriate outreach.

Policy WH-10.13.6 Support efforts to ensure that Nevada County's critical facilities have adequate backup power sources and battery storage in order to minimize service disruptions during climate hazard events.

Policy WH-10.13.7 Support Nevada County efforts to establish extreme heat and air quality monitoring systems and develop accessible and language appropriate community education resources to prepare community members for increase extreme heat events and air pollution.

Policy WH-10.13.8 To the extent that the County has resources, support efforts to provide equitable access to climate controlled indoor spaces including efforts by community organizations, faith-based organizations, businesses, local government entities in Nevada County, and other institutions to improve access to weather shelters to reduce exposure to extreme heat, flooding, cold, and smoke.

Climate Change Resiliency and Mitigation (CC)

GOAL CC-10.14
Build Climate-Resilient Communities and protect neighborhoods, public infrastructure and natural resources through mitigating climate change.

Policy CC-10.14.1 While the impacts of climate change on local communities are difficult to quantify, to the extent possible, Nevada County will prepare to address environmental hazards and vulnerabilities that climate change is currently influencing and will influence in the future.

Policy CC-10.14.2 Nevada County shall identify within the existing safety hazards and vulnerabilities discussed in the Safety Element and the Local Hazard Mitigation Plan, which ones are likely to be exasperated by climate change and have the potential to negatively affect the people and the environment of Nevada County. During the periodic future updates of the Safety Element, the hazards and vulnerabilities shall be reviewed, updated and new policies adopted to reflect the most current information available regarding climate change and strategies to reduce hazard risks compounded by climate change.

Policy CC-10.14.3 Nevada County shall identify, based on current and updated science, strategies to foster resiliency to climate change influences in both the built and undeveloped lands. These strategies shall include mitigation measures to reduce climate change causes and adaptation plans to decrease the effects of climate change, and to protect residents and businesses from increased risks of natural disasters, such as flooding, drought, severe weather events and wildfire. The mitigation measures will be implemented as feasible.

Policy CC-10.14.4 Require that new discretionary development projects with the potential to exceed the applicable thresholds of significance to include an analysis of potential affects to climate change impacts and water resources in the project review process. Projects shall reduce or limit impacts as feasible.

Policy CC-10.14.5 The County shall work with State agencies on adaptation strategies to address climate change impacts where feasible.

Policy CC-10.14.6 The adopted Nevada County Energy Action Plan, accepted by the Board of Supervisors in February 2019, shall be implemented through the support and collaboration of working groups. County staff shall periodically review the Plan to evaluate its implementation.

Policy CC-10.14.7 The County shall continue to work with all applicable Federal, State, and local agencies as necessary to develop the Resource Resiliency Roadmap (RRR) for Nevada County to address climate change impacts.

Policy CC-10.14.8 The adopted Nevada County Recreation & Resiliency Master Plan, accepted by the Board of Supervisors in June of 2024, shall be implemented through the support and collaboration of working groups. County staff shall periodically review the Plan to evaluate its implementation.

Program CC-10.14.1 The County shall research funding, financing and partnership opportunities that would offset costs for energy efficiency appliances and infrastructure.

Environmental Justice and Vulnerable Populations (EJ)

GOAL EJ-10.15
Reduce the exposure to, increase preparedness for and reduce recovery times from natural and human-caused safety risks for all populations and communities in Nevada County.

Policy EJ-10.15.1 Ensure that public emergency operations (including evacuation routes) educational materials are available via different platforms and in formats that are understandable by Nevada County residents, including non-English readers.

Policy EJ-10.15.2 Ensure that emergency preparedness planning efforts inventory and consider vulnerable communities and populations, such as seniors, daycare facilities, health care facilities, latch key kids, and other populations where mobility is a constraint that creates additional vulnerability in emergency evacuation situations.

Policy EJ-10.15.3 Ensure that Nevada County emergency facilities and services are located and/or can respond equitably to the emergency needs of vulnerable populations and communities (also see FP-10.9.7).

Policy EJ-10.15.4 Encourage vital County documents and announcements to be translated, interpreted, and accessible in a variety of languages that reflect the linguistic needs of the communities being served. This includes printed and online materials, meetings and workshops, and other announcements and notices.

Policy EJ-10.15.5 Encourage meetings and other public engagement events to be held at accessible locations and times with considerations for ADA accommodations, technology access, and language interpretation to support greater attendance.

Policy EJ-10.15.6 Ensure that data mapping and visualization tools are easily accessible and comprehensible to the general public.