COUNTY OF SISKIYOU

WILDFIRE HAZARD

FLOOD HAZARD

GEOLOGIC & SEISMIC HAZARDS

HAZARDOUS MATERIALS

EMERGENCY MANAGEMENT

EVACUATION PLANNING

ADAPATION & COMMUNITY RESILIENCE

GOALS, POLICIES, & ACTIONS

GENERAL PLAN | 2025 Safety Element

RPC 2 (b)(iii)

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Executive Summary

Siskiyou County's location in northern California, its diverse geography, and seasonal climate, all contribute to its natural beauty, economy, and quality of life. To preserve these resources from the increasing risk of wildfire and other hazards, the county prepares for disasters to maintain a safe, enjoyable, and resilient community.

While the risk of natural disasters cannot be fully eliminated, the goal of the Safety Element is to anticipate and reduce the risk of death, injuries, property damage, and economic and social dislocation that results from fires, floods, droughts, earthquakes, landslides, extreme weather, and other hazards. (*Governor's Office of Land Use and Climate Innovation, 2025*).

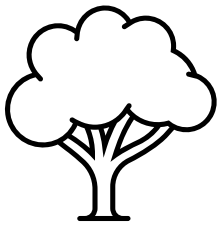
The Safety Element is written in plain language, so as to be accessible and understandable to anyone seeking more information regarding the potential hazards that exist in Siskiyou County. While written as a standalone document, the Safety Element is meant to be utilized in coordination with, and is complementary to, the Siskiyou County 2025 Local Hazard Mitigation Plan (LHMP) and other local area emergency plans. The 2025 LHMP is incorporated into and is part of the Safety Element. More information on the 2025 Local Hazard Mitigation Plan can be found in *Appendix G – Page 132*.

Chapter 1, "***Introduction***," outlines the purpose of the Safety Element, including statutory requirements. County population characteristics are discussed in this chapter with an emphasis placed on potential barriers to improving community resilience against natural disasters. FEMA National Risk Index scores are also discussed.

Chapter 2, "***Fire Hazard***," outlines the county's fire danger. Many residents live in or near fire prone areas. The Klamath National Forest, covering a majority of the western part of the county, has been the site of some of the largest wildfires in the county's history. The Butte Valley National Grasslands, in the eastern part of the county, has also experienced significant wildfire challenges.

Chapter 3, "***Flood Hazard***," summarizes the danger posed by elevated water levels. Many communities in the county are within the 100 year flood plain. Dam failure is discussed in this chapter. The Box Cayon Dam on Lake Siskiyou is rated *Extremely High* for downstream hazards. A dam failure at Lake Siskiyou could result in significant damage in the City of Dunsmuir, with water levels rising 20 plus feet above normal.

Chapter 4, "***Geologic & Seismic Hazards***," outlines the dangers posed by geologic and seismic hazards such as landslides, earthquakes and volcanic activity. Most landslides in the county occur in remote areas and often go unreported. Volcanic activity and earthquakes, causing significant damage, have a low chance of occurrence in Siskiyou County.



Chapter 5, "***Hazardous Materials***," is a brief discussion of the risks posed by hazardous material incidents. Past hazardous material spills in the county have negatively impacted local waterways and public health.

Chapter 6, "***Adaptation & Community Resilience***," summarizes the risks and impacts posed by extreme weather and rising average temperatures. It is expected that abnormally dry conditions, increased forest stand density, and excessive fuel load will continue to result in extreme fire events. Forest management practices that reduce stand density and fuel load are essential to improving community resilience. Changing long term weather patterns are projected to result in observable drought impacts throughout the county.

Chapter 7, "***Emergency Management***," analyzes the county's ability to respond to emergencies. This chapter includes information about the county's emergency preparedness and response programs, agencies, and operations. The county seeks to address the needs of all residents during emergency events, prioritizing support for socially vulnerable groups through emergency response programs and preparedness strategies that account for the county's diverse population.

Chapter 8, "***Evacuation Planning***," is a summary of various evacuation routes and locations within the county. Pursuant to Senate Bill 99 (2019), the county is required to identify residential developments within its jurisdiction that do not have at least two emergency evacuation routes. All cities and unincorporated communities, including disadvantaged unincorporated communities (*DUCs*), within the county have at least two emergency evacuation routes. It is expected however, given the county's vast expanse and rugged terrain, that residential developments in more remote areas, consisting of a few households, are likely to have only one emergency evacuation route available. An example of this would be a single family home located down a long dirt road that connects to the main traffic corridor for that area of the county.

Chapter 9, "***Goals, Policies, & Actions***," provides a complete listing of the county's goals, policies, and actions regarding the hazard topics discussed in the Safety Element. These goals, policies, and actions were developed to help reduce the risks posed by natural and human made hazards. Implementation of these mitigation measures will strengthen the community's ability to bounce back following a disaster event.

Appendix A, "***Past Wildfires in Siskiyou County***" contains a graphical depiction of past wildfires along with fire statistics from 2006 to 2024.

Appendix B, "***Local Responsibility Area Fire Hazard Severity Maps***" contains detailed fire hazard severity maps for the local cities and the unincorporated areas of the county.

Appendix C, "***Distribution of Land Uses in VHFHSZs***" is a visualization of the different land uses in the county compared to the different fire protection responsibility areas in the county.

Appendix D, "***FEMA Flood Maps for Siskiyou County***" provides floodplain mapping for the different communities in the county.

Appendix E, "***Residential Developments Lacking Two Evacuation Routes***" identifies residential developments in in the county that do not have at least two emergency evacuation routes. This listing is updated regularly. For the most recent version, please email planning@co.siskiyou.ca.us.

Appendix F, "***Institutional and Regulatory Framework***" provides a summary of the laws and institutions related to hazard mitigation.

Appendix G, "***2025 Local Hazard Mitigation Plan***" incorporates the 2025 LHMP into the 2025 Safety Element of the Siskiyou County General Plan.

Chapter 1
Introduction

Purpose and Statutory Requirements

The purpose of the Safety Element is to provide a framework for minimizing risks posed by natural and human made hazards that have the potential to impact public health and safety.

Pursuant to Senate Bill 379 (2015), the Safety Element must include a vulnerability assessment which addresses rising average temperatures and extreme weather along with adaptation and resiliency strategies applicable to the county. SB 379 also requires inclusion of a set of goals, policies, and objectives, based on a vulnerability assessment, identifying the risks posed by rising average temperatures and extreme weather to the county and the geographic areas most at risk.

Relationship to the Local Hazard Mitigation Plan

The Safety Element incorporates by reference the 2025 Local Hazard Mitigation Plan (LHMP). While the Safety Element provides an overview of potential hazards, the 2025 LHMP is meant to provide deeper analysis, context, and mitigation strategies for these hazards.

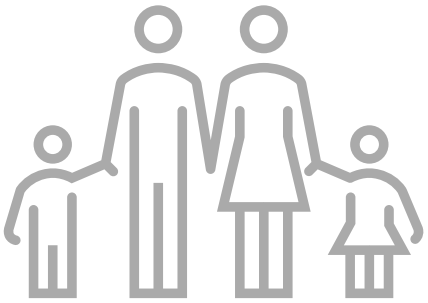
The Safety Element addresses all state law requirements and serves as a central reference point for the county's efforts to address potential safety issues. It discusses important topics such as evacuations, drought, wildfire, earthquake, flooding, extreme weather, and other

hazards. For more information regarding the institutional and regulatory framework applicable to the Safety Element see *Appendix F – Page 125*.

Relationship to Other General Plan Elements

The Safety Element is closely related to the other General Plan elements, particularly the Housing Element. The Housing Element is the county's strategy and commitment for how it intends to meet the community's current and future housing needs. The Housing Element seeks to make quality housing available to residents, workers, and visitors, while addressing systemic housing inequality.

The Safety Element, on the other hand, aims to protect these same residents, workers, and visitors from natural and human made disasters.



Population Statistics

Population data contained in the Safety Element was derived from the 2020 U.S. Census. There are approximately 44,076 people living in the county. It is estimated that 81.3% of all households in the county have at least 2 motor vehicles. Based on this high ownership percentage, it is expected that the primary mode of transportation during an evacuation will be private motor vehicles.

Children. Children (*defined as persons under 18 years of age*) make up 19.7% of the county population and it is expected that during an evacuation they will be accompanied by an adult caretaker.

An Aging Population. 28.7% of the county population is 65 years or older. Pre-existing medical conditions and potential mobility issues will need to be considered in any evacuation planning.

Persons with Disabilities. 18.1% of the county population has a medically recognized disability. Individuals with disabilities and individuals with functional or access needs will likely require specialized assistance during an evacuation. Given the high percentage of individuals in this category, consideration of this population segment must be included in any emergency planning that occurs.

Low Income Population. 16.7% of the population is listed as being below the federal poverty threshold. Individuals in this population segment are not likely to have access to a reliable motor vehicle during an evacuation.

Homeless Population. Between 2022 and 2023, Partnership HealthPlan of California listed 2,204 individuals as homeless in Siskiyou County. This conflicts with the *Point in Time* count conducted by the County for the same time period, which estimated that there are about 507 homeless individuals in the county.

Based on the County's population characteristics, a significant portion of the community is likely to require additional or specialized assistance during a large-scale evacuation. For individuals without access to a private motor vehicle, public buses operated by the *Siskiyou Transit and General Express* (STAGE) could be an option for relocating people to safety.

FEMA National Risk Index

The National Risk Index created by the *Federal Emergency Management Agency* (FEMA) summarizes the risks posed by natural hazards in Siskiyou County. The national index tracks 18 hazard types, 14 of which are relevant to the county. According to the Index, the county is most at risk from Drought, Wildfire, Earthquake, Landslide, Riverine Flooding, and Volcanic Activity. The county's National Risk Index scores are summarized on the following pages.

National Risk Index

Risk Index Rating

Very High	Relatively High	Relatively Moderate	Relatively Low	Low

Siskiyou County Hazard Risk Index

Hazard Type	Risk Index Rating	Risk Index Score	National Percentile
Avalanche	Very Low	10.1	100
Cold Wave	Relatively Low	55.2	100
Drought	Relatively High	99.5	100
Earthquake	Relatively Moderate	94.6	100
Hail	Very Low	3.9	100
Heat Wave	Relatively Low	43.5	100
Landslide	Relatively Moderate	92.1	100
Lightning	Relatively Low	31.7	100
Riverine Flooding	Relatively Moderate	88.6	100
Strong Wind	Very Low	4.0	100
Tornado	Very Low	1.9	100
Volcanic Activity	Relatively Moderate	78.7	100
Wildfire	Relatively High	98.1	100
Winter Weather	Relatively Low	35.6	100

The maximum Risk Index Score is 100. The county's Risk Index score is represented by its percentile ranking compared to all other U.S. counties. For example, Siskiyou County's drought score of 99.5 means that its Risk Index value is greater than 99.5% of all other U.S. counties. Put another way, 99.5% of all U.S. counties have a lower Risk Index value for drought than Siskiyou County.

National Risk Index

Expected Annual Loss Rating

Very High	Relatively High	Relatively Moderate	Relatively Low	Low

Expected Annual Loss by Hazard Type

Hazard Type	Expected Annual Loss Rating	EAL Value	EAL Score
Avalanche	Very Low	$36,967	12.0
Cold Wave	Relatively Low	$58,958	52.1
Drought	Relatively High	$14,895,728	99.5
Earthquake	Relatively Moderate	$6,190,981	93.4
Hail	Very Low	$1,956	5.6
Heat Wave	Relatively Low	$43,095	43.1
Landslide	Relatively Moderate	$147,424	88.7
Lightning	Relatively Low	$44,473	28.1
Riverine Flooding	Relatively Moderate	$2,677,010	87.7
Strong Wind	Very Low	$9,402	6.1
Tornado	Very Low	$2,181	1.9
Volcanic Activity	Relatively Moderate	$1,146,557	81.1
Wildfire	Relatively High	$8,898,099	97.7
Winter Weather	Relatively Low	$26,663	36.5

The maximum EAL Score is 100. Expected Annual loss (EAL) represents the average economic loss in dollars resulting from natural hazards each year. EAL scores are calculated independently for buildings, population, and agriculture. Buildings and agriculture values are measured in dollars, while population is measured in fatalities and injuries. When population is monetized, each fatality or 10 injuries is treated as equivalent to $11.6 million of economic loss.

National Risk Index

Social Vulnerability

Very High	Relatively High	Relatively Moderate	Relatively Low	Low

Social Vulnerability Score: 74.92

The maximum score is 100. A low Social Vulnerability Score indicates that a community is less susceptible to the negative impacts posed by natural hazards. Social groups in Siskiyou County have a *Relatively High* susceptibility to the negative impacts of natural hazards compared to other U.S. counties.

- 75% of U.S. counties and 52% of counties in California have a *lower* Social Vulnerability Score.
- 74.92 National Percentile and 51.70 Percentile in California.

Community Resilience

Very High	Relatively High	Relatively Moderate	Relatively Low	Low

Community Resilience Score: 40.17

The maximum score is 100. A high Community Resilience Score indicates that a community is better able to prepare for and recover from natural hazards. Communities in Siskiyou County have a *Relatively Moderate* ability to prepare for and recovery quickly from natural hazards compared to other U.S. counties.

- 60% of U.S. counties and 60% of counties in California have a *higher* Community Resilience Score.
- 40.17 National Percentile and 39.70 Percentile in California.

Chapter 2
Fire Hazard

A wildfire is defined as an uncontrolled fire on undeveloped land that requires fire suppression. Most wildfires in Siskiyou County occur in the western part of the county within or near the Klamath National Forest.

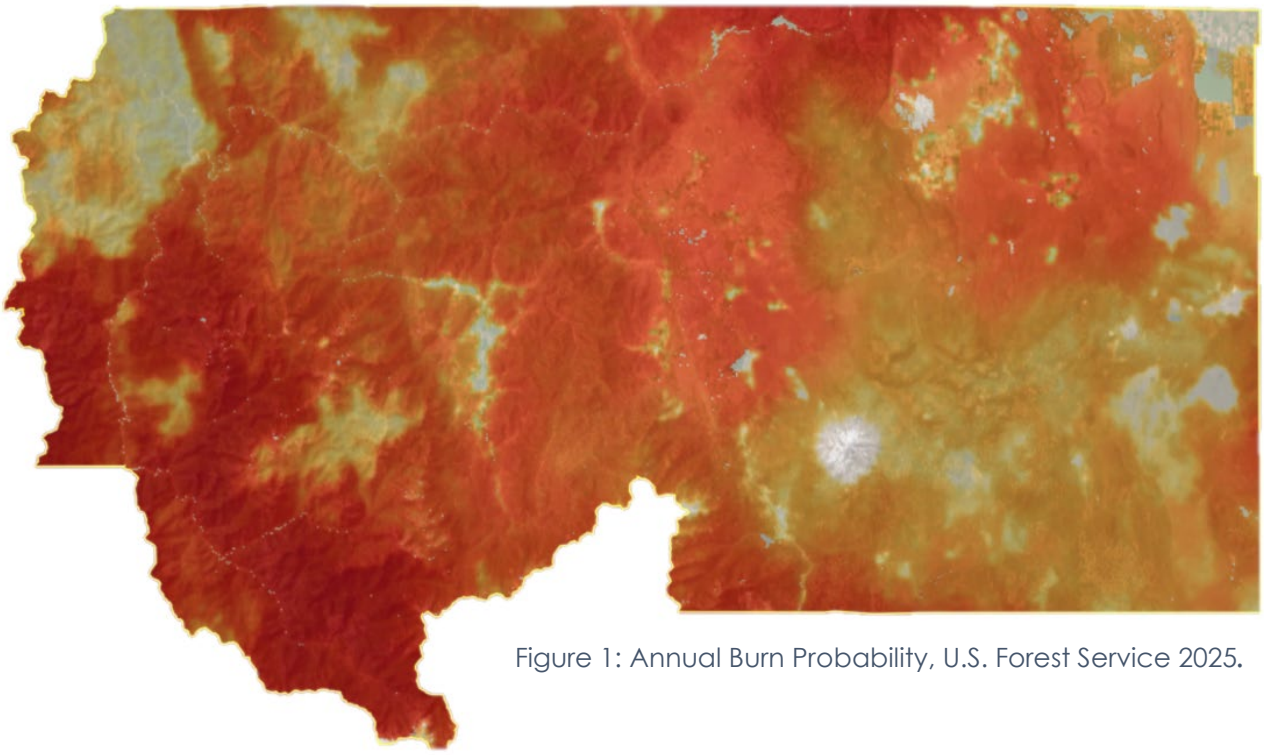


Figure 1: Annual Burn Probability, U.S. Forest Service 2025.

Siskiyou County Annual Burn Probability

Figure 1 above depicts the county's annual burn probability, the darker the color, the higher the annual burn probability. The snow on Mt. Shasta is colored white, indicating a zero percent burn probability.

Wildfires can be ignited by naturally occurring events like lightning or by human activity such as smoking, campfires, equipment use, or arson. Many of the large fires in the county have been wind driven fires. Lightning, followed by equipment use, downed power lines, and debris burning were the lead ignition sources for these fires.

The county's total land area is approximately 4 million acres. From 2006 to 2024, wildfires burned the equivalent of 49% of the total land area, or approximately 1.9 million acres.

Wildland-Urban Interface

The term *wildland-urban interface* (WUI) refers to the area where human development meets with the natural environment. *Figure 2* shows the county's WUI marked (in red). Most people in the county live in or near a fire prone area.

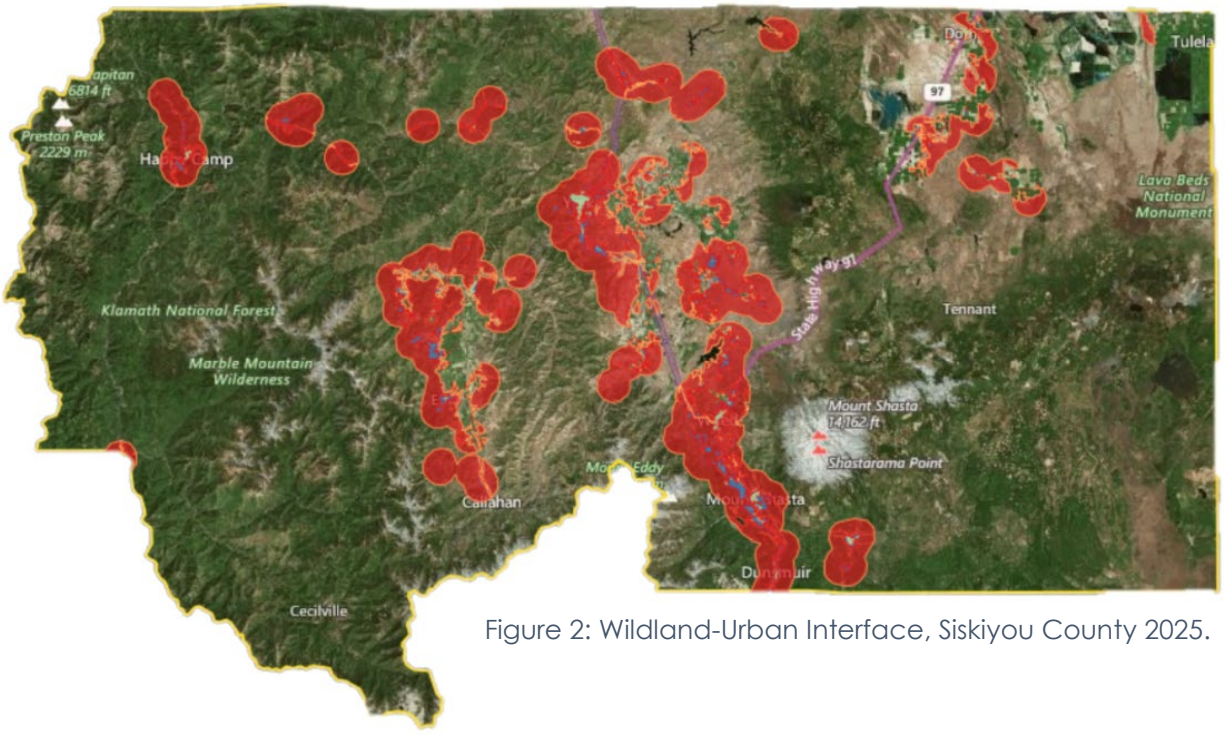


Figure 2: Wildland-Urban Interface, Siskiyou County 2025.

The location of residential communities near high-risk fire prone areas can increase the chances of catastrophic wildfire.

Ignition Sources. When a fire flares up in the *wildland-urban interface*, it can spread rapidly, as flames jump to neighboring structures, damaging and destroying businesses and homes. Smoking in bed, faulty wiring, children playing with matches, and appliance malfunctions are common causes of structure fires. Ash from woodburning fireplaces that remain active have also been blamed for starting fires near residential locations.

Fire Prevention. In remote areas, due to the lack of immediate water sources and long emergency response times, mitigation measures such as defensible space clearance are extremely important.

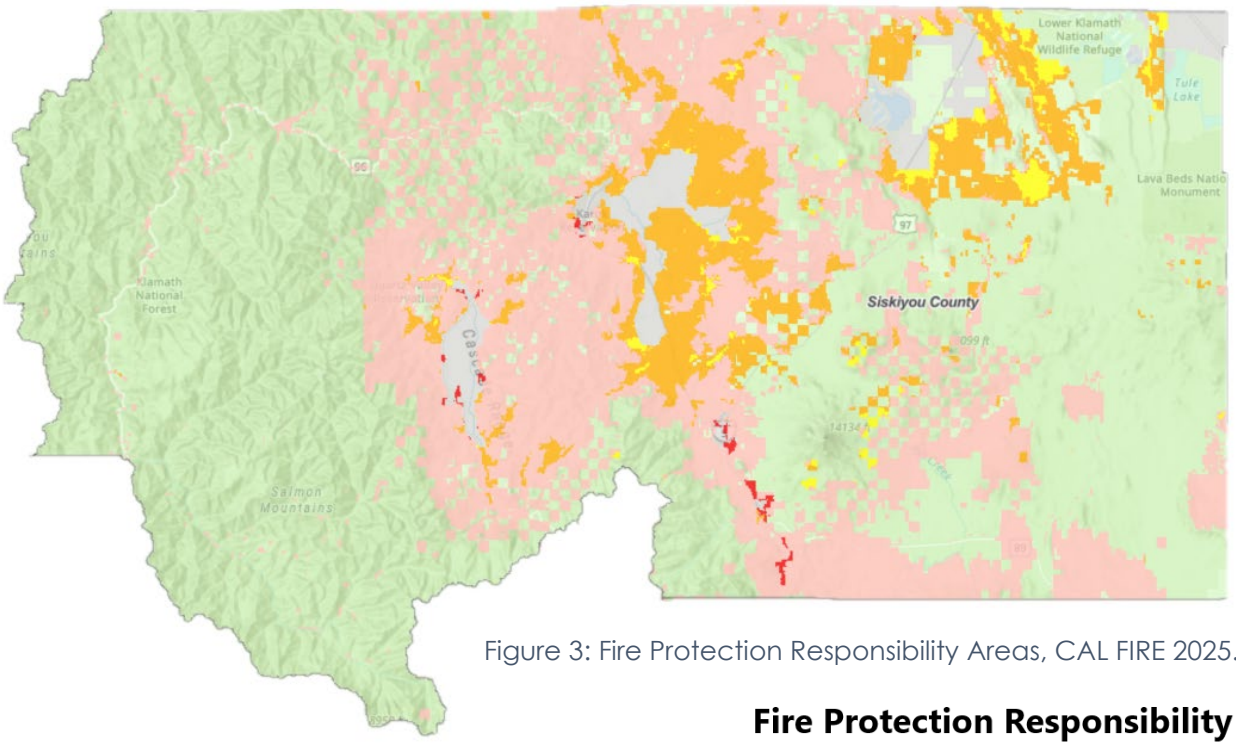


Figure 3: Fire Protection Responsibility Areas, CAL FIRE 2025.

Fire protection responsibility is shared between state, local, and federal agencies. Emphasizing multi-agency cooperation results in a rapid, effective, and coordinated fire response.

Table 1: Local Fire Protection Agencies.		
Etna City Fire Department	Happy Camp Fire District	Scott Valley Fire Protection District
Hilt Fire Protection District	Fort Jones Fire Department	Gazelle Fire Protection District
Coco Lake Fire District	Hammond Ranch Fire Zone	Grenada Fire Protection District
Hornbrook Fire Protection District	Klamath River Fire Company	Mayten Fire Protection District
Montague Fire Protection District	Mt. Shasta Vista Fire Zone	Salmon River Fire Company
South Yreka Fire Protection District	Yreka City Fire Department	Butte Valley Fire Protection District
Dorris City Fire Department	Seiad Valley Fire Company	Tennant Community Services District
Tulelake Fire Department	Weed City Fire Department	Lake Shastina Community Services District
Castella Fire Protection District	Dunsmuir Fire Department	McCloud Community Services District
Pleasant Valley Fire Zone	Mt. Shasta City Fire Department	Mount Shasta Fire Protection District

Fire Hazard Severity Zones (FHSZ)

The *California Department of Forestry and Fire Protection* (CAL FIRE) has created fire zone maps identifying areas of high fire danger within the county. These *Fire Hazard Severity Zones* (FHSZs) are mapped and identified based on fuel loading, slope, fire history, and other relevant factors, including areas where winds have been identified by the department as a major cause of wildfire spread.

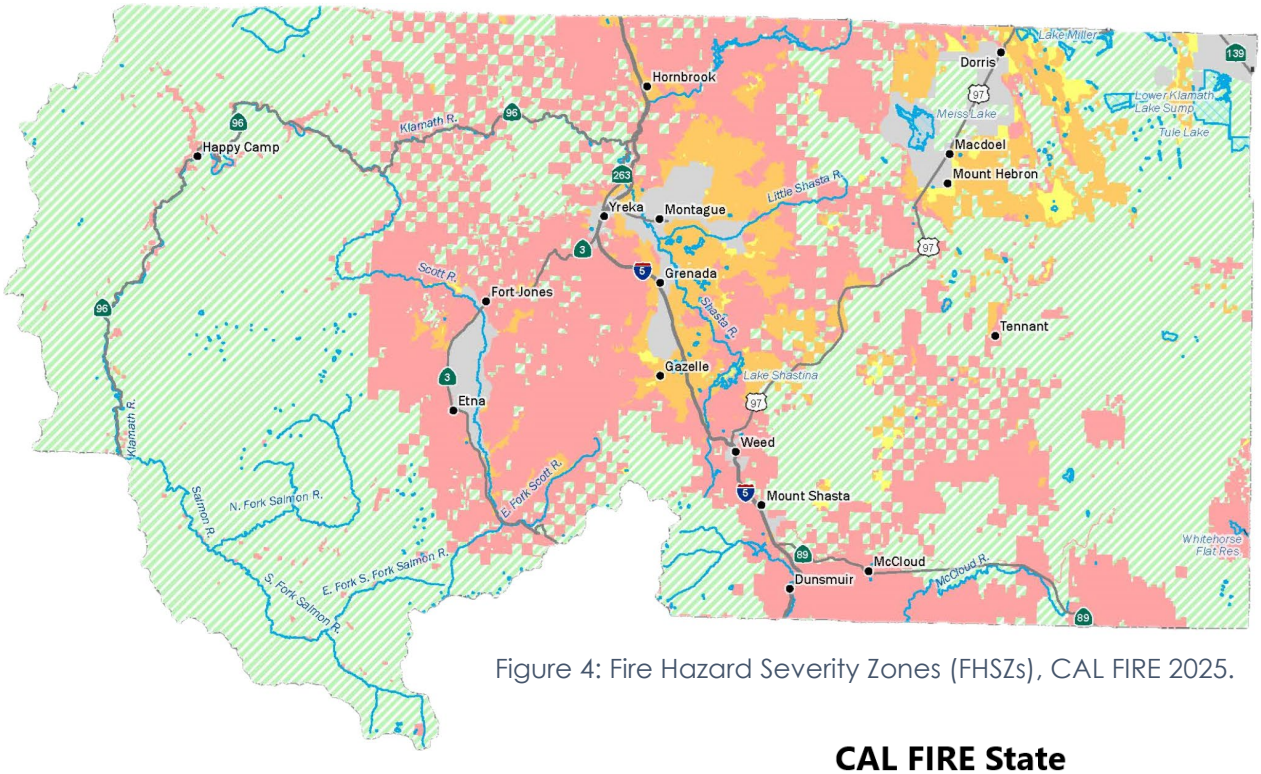


Figure 4: Fire Hazard Severity Zones (FHSZs), CAL FIRE 2025.

CAL FIRE State Responsibility Area (SRA)

Very High	1,063,355 Acres
High	282,023 Acres
Moderate	38,849 Acres

Fire Hazard Severity Zones (FHSZ) Maps use the following classifications:

***moderate*, *high*, and very *high*.**

In Siskiyou County, the state responsibility area covers 1.06 million acres of land classified as *very high* for fire danger. An additional 282,023 acres are classified as *high*, and another 38,849 acres are classified as *moderate*.

Additional Information Available

From 2014 to 2024, 76 percent of all wildfires in Siskiyou County were the result of lightning strikes. For more information regarding the wildfire hazard please visit:

Appendix A — Page 95

Appendix A contains information on all named past wildfires in Siskiyou County, from 2006 to 2024, including total number of acres burned, organized by fire, by year. For example, the largest fire within the last 25 years is the *River Complex Fire* (2021), which burned 199,359 acres. Before that, it was the *Klamath River Complex* (2008), which burned 192,038 acres.

Appendix B — Page 101

Appendix B contains detailed fire hazard severity maps for different areas of the county, as determined by the State Fire Marshal. There is a county wide map for the unincorporated area and separate maps for the local cities.

Appendix C — Page 110

Appendix C depicts county land use mapping for areas located in very high fire hazard severity zones and the state responsibility area.

Fire Hazard Vulnerability Assessment

BACKGROUND

The county has an extensive fire history due to the abundance of fuel sources combined with the region's climate and topography. Wildfires are occurring on a more frequent basis. The annual smoke season has become a part of everyday life. The county experiences frequent mixed-severity fires approximately every 2 to 3 years. The Klamath National Forest has been the site of many large fires in the last 20 years.

FEMA Wildfire Hazard Risk Index. Siskiyou County's Risk Index Score is 98.1 out of a possible 100. The county's wildfire risk is greater than 98.1% of all U.S. counties. FEMA projects estimated Expected Annual Loss from Wildfire in the county to be $8,898,099. Based on FEMA estimates, the risk of Wildfire is *Relatively High*.

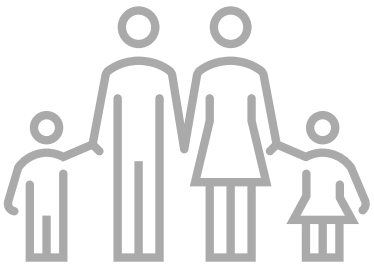
POPULATION AT RISK

Even if a wildfire occurs in a remote area, the entire county population can be affected by the resulting smoke and air pollution fallout. Individuals at greater risk of health effects from wildfire smoke include those with cardiovascular or respiratory disease, older adults, children under 18 years of age, pregnant women, outdoor workers, and those of lower socio-economic status.

An Aging Population. Physical limitations and cognitive decline can make it difficult to maintain adequate defensible space around homes and can slow the ability to evacuate in an emergency. Preexisting medical conditions and potential mobility issues need to be considered when formulating evacuation plans. In the 2022 McKinney Fire, all four fatalities were 72 years old or older.

Homeless Population. This population segment generally lacks the resources needed to mitigate against wildfire. Lacking a home, these individuals are often unable to remain indoors to avoid prolonged exposure to smoke and air pollution.

Persons with Disabilities. Persons with disabilities or functional or access needs often require additional assistance during an evacuation. Public resources may be necessary to facilitate safe transport. Third party assistance may be required to create defensible space around structures. Early alert and public warning systems must account for a population that may have visual and/or audio impairments.



Low Income Population. This population segment will likely lack the financial resources needed to mitigate against wildfire. Housing in fire prone areas can often lack adequate defensible space buffers. During an evacuation low income individuals may not have access to a motor vehicle in which to evacuate.

Property Damage

In Siskiyou County, the majority of private homes and buildings are of wood frame construction. In 2022, the McKinney Fire destroyed over 185 structures, including much of the community of Klamath River. The fire burned for a total of 41 days, however much of the damage occurred in the first few days.

Critical Facilities and Infrastructure

Significant damage to critical infrastructure is possible. Most roads would be without damage except in the worst scenarios. Power lines, communication lines, and railroads are the most at risk because their supporting structures are made primarily of wood and are susceptible to burning. Local water systems throughout the county often include wooden structural components making them highly susceptible to fire damage. Fire can also impact bridges, especially those with wood construction or decking. Bridges in areas of high to moderate fire risk are important because they often provide the only ingress and egress route into the affected area.

ENVIRONMENTAL IMPACTS

The Klamath National Forest, covering much of the western portion of the county, is home to a variety of endangered species. This area is highly susceptible to wildfire.

Salmon Habitat. Salmon populations can suffer from increased water temperatures, excessive sedimentation, and changes in water quality. Rainy season landslides and debris flows can create new habitats for salmon by providing shelter and gravel for spawning. Excessive sedimentation can also smother eggs, bury spawning areas, or spark a microbial bloom, depleting oxygen levels in the water. Flash flooding after the McKinney Fire caused excessive sedimentation into the Klamath River which resulted in a devastating fish kill.

Soil Erosion. After a wildfire, the protective covering provided by foliage and dead organic matter is removed, leaving the soil fully exposed to wind and water erosion. Accelerated soil erosion can result in landslides which may impact aquatic species and public safety.

Invasive Plant Species. Non-native woody plant species frequently invade burned areas, inhibiting the return of native plants and animals.

Disease and Insect Infestations. Unless diseased or insect-infested trees are quickly removed, infestations and disease from wildfire areas can spread to healthy forests and private lands.

Soil Sterilization. Wildfires can burn so hot that they sterilize the soil. Topsoil becomes water repellant and soil nutrients are lost. When this happens, it can take decades for ecosystems to recover from a wildfire.

MITIGATION MEASURES

Mitigation measures should be encouraged and implemented to reduce the impact of wildfires.

Fuel Reduction. Reducing forest stand density and removal of dead wood and debris help to reduce fuel load. Controlled burns, firebreaks, and vegetation gaps can help to disrupt a wildfire's progress when it occurs.

Defensible Space. Creating buffers around structures and using fire-resistant building materials are essential requirements in mitigating against wildfire.

Chapter 3
Flood Hazard

Types of Flooding

Flooding is the inundation (overwhelming) of normally dry land due to a rise in the level of surface waters or the rapid accumulation of stormwater runoff. The two primary types of floods that occur in Siskiyou County are riverine flooding and flash flooding.

Riverine flooding. This type of flooding occurs when streams and rivers exceed the capacity of their channels to accommodate the flow of water and are overwhelmed. Riverine flooding can occur at any time of the year but is most common in the late winter and early spring due to snowmelt and heavy rainfall.

Flash flooding. Flash flooding is a rapid and extreme flow of water into a normally dry area, or a rapid rise in a waterway above a predetermined level, beginning within six hours of the causal event. Flash floods can move rapidly, end suddenly, and occur in areas not generally associated with flooding. Flash floods cannot be predicted accurately and can occur whenever there are heavy storms.

Road Closures. Most flood hazards in the county are transportation related. Railroad, highway, and canal embankments can form temporary barriers, resulting in ponding or diversion of water. In extreme conditions, due to high levels of runoff and erosion from intense precipitation, roads and bridges can become damaged if the road runs parallel to a flooding river.

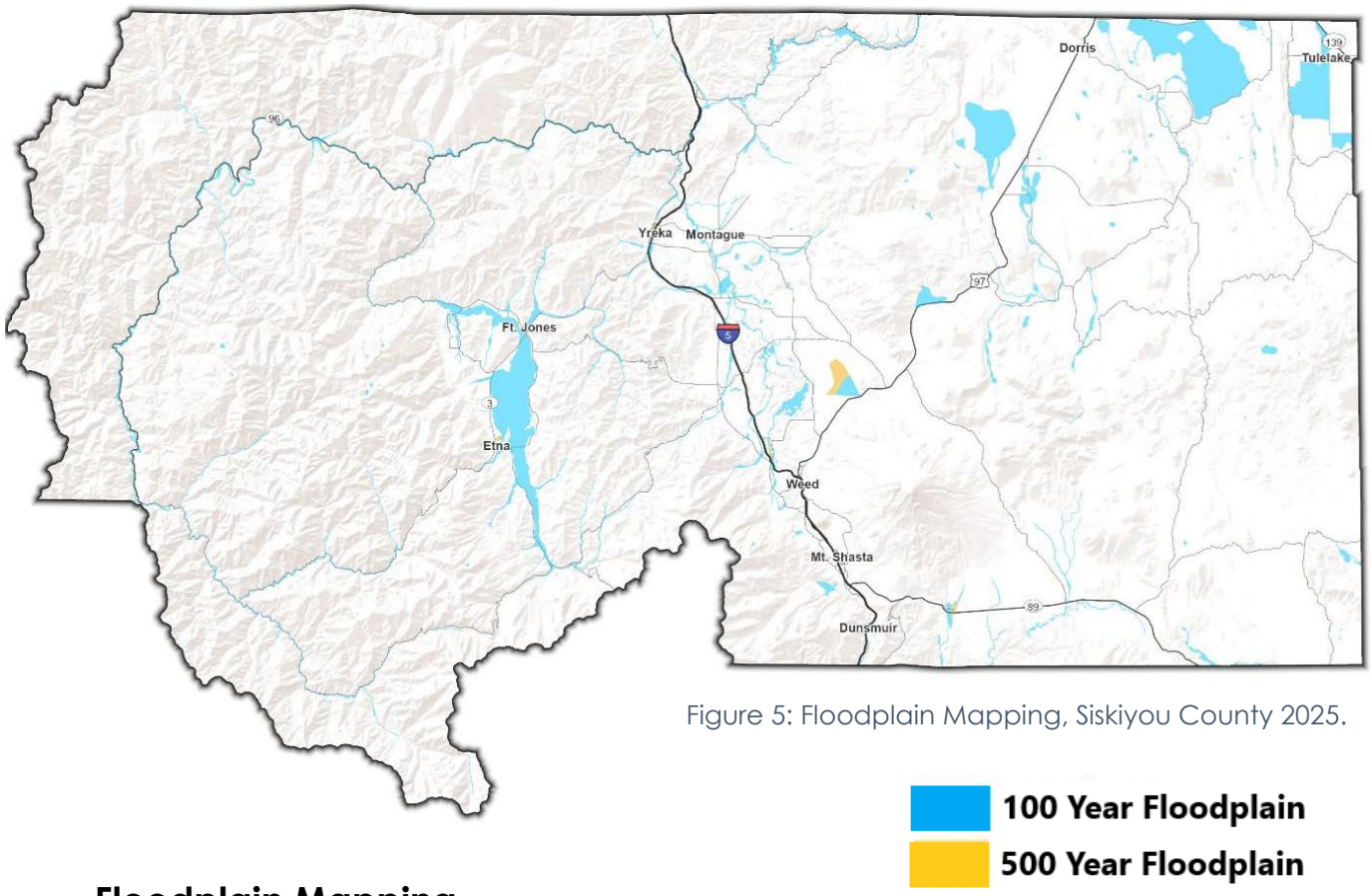


Figure 5: Floodplain Mapping, Siskiyou County 2025.

Floodplain Mapping

A floodplain is a low-lying area of land next to a river, lake, or waterway that is prone to flooding. The 100 Year Floodplain (in blue) includes river areas and other low-lying areas that have a 1 percent or greater chance of flooding each year. The 500 Year Floodplain (in yellow) is an area of minimal flood danger, having a 0.2 percent (or 1 in 500 chance) chance of flooding each year.

Dam Failure

Dam failure can be caused by a mechanical failure or structural damage resulting from a major event such as an earthquake. Internal erosion, improper design and maintenance, and negligent operation can also cause dam failure. There are currently 19 active dams in the county. Four dams in the county are listed as being "*High*" or "*Extremely High*" for downstream hazards, meaning these areas would experience flooding, damage, loss of property, and injury during a dam failure.

Table 2: Siskiyou County Dams		
Name	Acre Feet	Hazard
Barton	160	Low
Bass Lake	223	Low
Box Canyon	26,000	Extremely High
Campbell Lake	350	Low
Cloak Lake	123	Low
Dwight Hammond	348	Low
East Boulder	200	Low
Fiock #1	223	Low
Fiock #2	318	Low
Greenhorn	251	High
Juanita Lake	348	Low
Kangaroo Lake	168	Low
Montague #2	160	Low
Ray Soule Reservoir	132	Significant
Shasta River	50,000	High
Shelley	364	High
Steamboat Lake	2,700	Significant
Lake Suzanne	89	Low
Trout Lake	2,108	Significant

California Dam Hazard Classifications	
Significant	No probable loss of human life but can cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts.
High	Dam failure is expected to cause the loss of at least one human life.
Extremely High	Expected to cause considerable loss of human life or would result in an inundation area with a population of 1,000 or more.

Box Canyon Dam (Lake Siskiyou)

The Box Canyon Dam is a concrete hydroelectric gravity dam impounding Lake Siskiyou. It was completed in 1969 and holds back approximately 26,000 acre feet of water. The Box Canyon Dam has a hazard classification of "*Extremely High*" for potential damage. The dam is located 8 miles north of the City of Dunsmuir near the start of the Sacramento River. Dam failure would flood large portions of Dunsmuir within 25 minutes of collapse. Water levels would be 20 feet above normal.

Additional Information Available

Certain areas within the county have experienced major flooding in the past including the 1964 and 1974 floods in Dunsmuir which damaged and destroyed homes, washed out bridges, roads and railroad tracks.

To view FEMA flood maps for the communities below,
See **Appendix D —— Page 111**.

- Callahan
- Dorris
- Dunsmuir
- North Dunsmuir
- Etna
- Fort Jones
- Gazelle
- Greenview
- Grenada
- Happy Camp
- Hilt
- Hornbrook
- Lake Shastina
- Macdoel
- McCloud
- Montague
- Mount Shasta
- Quartz Valley
- Tulelake
- Weed
- South Weed
- Yreka

Flood Hazard Vulnerability Assessment

Background. Specific areas of the county are more susceptible to the flood hazard than others. In Scott Valley, localized flooding is possible in areas adjacent to the Scott River. Dunsmuir has experienced substantial flood damage in the past due to its location along the banks of the Sacramento River. At the same time, other areas of the county have an extremely low risk of flooding.

FEMA Flood Hazard Risk Index. Siskiyou County's Risk Index Score is 88.6 (*Relatively Moderate*) out of a possible 100. The county's Riverine Flooding risk is greater than 88.6% of all US counties. FEMA projects Expected Annual Loss from Riverine Flooding within the county to be $2,677,010.

Callahan. The community of Callahan (Population less than 100) is located at the intersection of Highway 3 and Cecilville Road, near the south end of Scott Valley, where the south and east fork of the Scott River meet. Callahan's location along the banks of the Scott River places the community within the 100 Year Floodplain. All primary evacuation routes in the Callahan area are in the 100 Year Floodplain.

Dorris. The City of Dorris (Population 822) is in the northeastern portion of Butte Valley, slightly south of the Oregon border, along Highway 97. The nearest surface water is approximately 2 miles away. No portion of the city is within the 100 Year Floodplain. Minor, localized flooding is

possible due to ponding or diversion of water onto city streets during a storm event. On the whole, Dorris has very little flood risk.

Dunsmuir. The City of Dunsmuir (Population 1,642) is located along Interstate 5, near the county's southern border. There is a significant history of flooding in this area. The Sacramento River runs through the middle of town with development on both sides of the river. Several creeks and temporary channels flow through town and feed into the Sacramento River. Large portions of the city are within the 100 Year and 500 Year Floodplain. The city is located downstream from the Box Canyon dam, which is classified as *Extremely High* for downstream hazards. During a large flood event, extensive damage is likely to result.

North Dunsmuir. North Dunsmuir faces similar challenges as central and south Dunsmuir. There is significant development adjacent to the Sacramento River in the 100 Year Floodplain. The Southern Pacific Railroad line runs parallel to the Sacramento River as it passes through the river canyon. Flooding of Hedge Creek or the Sacramento River would have adverse impacts on all development along the Sacramento River, including the railroad.

Etna. The City of Etna (Population 653) is located on the western side of Scott Valley, 13 miles north of Callahan along Highway 3. The nearest surface water feature is Etna Creek located to the southeast. The 100 Year Floodplain is located southeast of Main Street, spreading east and north, across the valley floor. In this area, Island Road, Highway 3, and Horn Lane are all in the 100 Year Floodplain. Development near Etna Creek and the low-lying areas southeast of town would be most affected during a flood. In the recent past, flooding of Island Road, as a

result of the Scott River overflowing its banks, prevented vehicle traffic from Eastside Road to Etna via Island Road for weeks at a time.

Fort Jones. The City of Fort Jones (Population 673) is in Scott Valley, 12 miles north of Etna along Highway 3. The nearest surface water is the Scott River located to the southwest. The 100 Year Floodplain is located west of Main Street, spreading west, north, and south, across the valley floor. Scott River Road and Highway 3 are both in the 100 Year Floodplain.

Gazelle. The community of Gazelle (Population 120) is located west of Interstate 5 along Old Highway 99 South, between Yreka and Weed. The nearest surface water is Willow Creek. The 100 Year Floodplain is south of town, along Willow Creek and extending northeast up to West Louie Road.

Greenview. The community of Greenview (Population 208) is in Scott Valley, midway between Fort Jones and Etna on Highway 3. The nearest surface water is Kidder Creek located south of town. The 100 Year Floodplain covers the southern part of town and Highway 3 between South Kidder Creek Loop continuing up to Glendenning Road. Extreme flooding is likely to restrict vehicle travel between Greenview and Etna, along Highway 3.

Grenada. The community of Grenada (Population 314) is located along Interstate 5 and covers the land area between County Road A12, Montague Grenada Road, and Interstate 5. The nearest surface water is Willow Creek east of Grenada. The community is not in the 100 Year Floodplain and flood risk is minimal.

Happy Camp. The community of Happy Camp (Population 907) is located on Highway 96, approximately 70 miles west of Interstate 5. The 100 Year Floodplain covers large areas of the town and parts of Highway 96. Flooding is likely to cause extensive damage.

Hilt. The community of Hilt (Population 9) is located west of Interstate 5, near the Oregon border. The nearest surface water is Cottonwood Creek located west of town. The 100 Year Floodplain is located far from any development and there is minimal flood risk.

Hornbrook. The community of Hornbrook (Population 381) is located east of Interstate 5, approximately 15 miles north of Yreka. The nearest surface water feature is Cottonwood Creek. The 100 Year Floodplain is located near developments and there is moderate flood risk.

Lake Shastina. The community of Lake Shastina (Population 3,008) is located north of Weed along Highway 97. The nearest surface water feature is Lake Shastina and the Shasta River. The 100 Year Floodplain is located far from most development. Low lying areas near the lake are most at risk. Parts of Dwinnell Way, Dwinnell Road, and Spear Point Road are in the 100 Year Floodplain.

Macdoel. The community of Macdoel (population 143) is located on Highway 97, approximately 40 miles north of Weed, CA. The nearest surface water is Meiss Lake to the northwest. The 100 Year Floodplain is approximately half a mile to the southeast of most development and there is a low risk of flooding.

McCloud. The community of McCloud (population 959) is located east of Interstate 5, on Highway 89, 13 miles east of Mount Shasta. The nearest surface water is Panther Creek located to the northwest and Yét

Atwam Creek, on the east side of town. Large parts of the community are in the 100 Year and 500 Year Floodplain. Annual flooding of Mud Creek, due to glacier melt, often results in closure of Highway 89 east of McCloud.

Montague. The City of Montague (population 1,182) is located east of Interstate 5, six miles east of Yreka on Montague Road. The nearest surface water is the Shasta River located west of town, past the airport, and the Oregon Slough, to the north. The 100 Year Floodplain is located far from town along the banks of the Shasta River. Parts of town are within the 500 Year Floodplain however there is a low risk of flooding.

Mount Shasta. The City of Mount Shasta (population 3,179) is located 8 miles north of Dunsmuir on Interstate 5. The nearest surface water is Lake Siskiyou Reservoir, located to the west. Also present are Wagon Creek, Big Springs Creek, and Cold Creek. The 100 Year Floodplain is located along the shores of Lake Siskiyou. Box Canyon Dam is a concrete gravity dam impounding Lake Siskiyou Reservoir. The Upper Sacramento River flows from Lake Siskiyou, starting at the foot of Box Canyon Dam. Low-lying areas nearest to the lake are most at risk. Parts of WA Barr Road are in the 100 Year Floodplain and are susceptible to flooding.

Quartz Valley. The community of Quartz Valley (population 202) is located west of Greenview and Highway 3 on Quartz Valley Road. The nearest surface water feature is Scott River to the north, Sniktaw Creek to the west and Shackleford Creek to the south. The 100 Year Floodplain spans the area between Scott River Road and Quartz Valley Road. Emergency evacuation during a flood event may be impacted as large

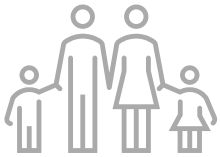
sections of Scott River Road and Quartz Valley Road are in the 100 Year Floodplain.

Tulelake. The City of Tulelake (population 867) is located in the northeast corner of the county on Highway 139, near the Oregon border. The nearest surface water is Tule Lake located southwest of town. The 100 Year Floodplain is located far from the town center and there is minimal flood risk.

Weed. The City of Weed (population 2,574) is located at the interchange of Interstate 5 and Highway 97, 10 miles north of Mount Shasta. The nearest surface water is Boles Creek, flowing east to west through town. Developments near the intersection of Weed Boulevard and Highway 97 are in the 100 Year Floodplain.

South Weed. This portion of the City of Weed has minimal flood risk. The only areas in the 100 Year Floodplain are located along the Interstate 5 drainage corridor.

Yreka. The City of Yreka (population 7,808) is located on Interstate 5, approximately 22 miles south of the Oregon Border. The nearest surface water feature is the Greenhorn Reservoir at the south end of town and Yreka Creek, which runs parallel to Interstate 5, the length of the town. The 100 Year Floodplain covers large areas of the town along the I-5 corridor. The 500 Year Floodplain covers the area between South West Street and Interstate 5.



Chapter 4
Geologic & Seismic Hazards

Landslide Hazard

Landslides and mudslides, including rockfalls, usually strike without warning. The force of rocks, soil, and other debris moving down a slope can devastate anything in its path. *Figure 6* depicts areas of the county (in red) with slopes greater than 15 percent that are especially prone to landslide and mudslide events.

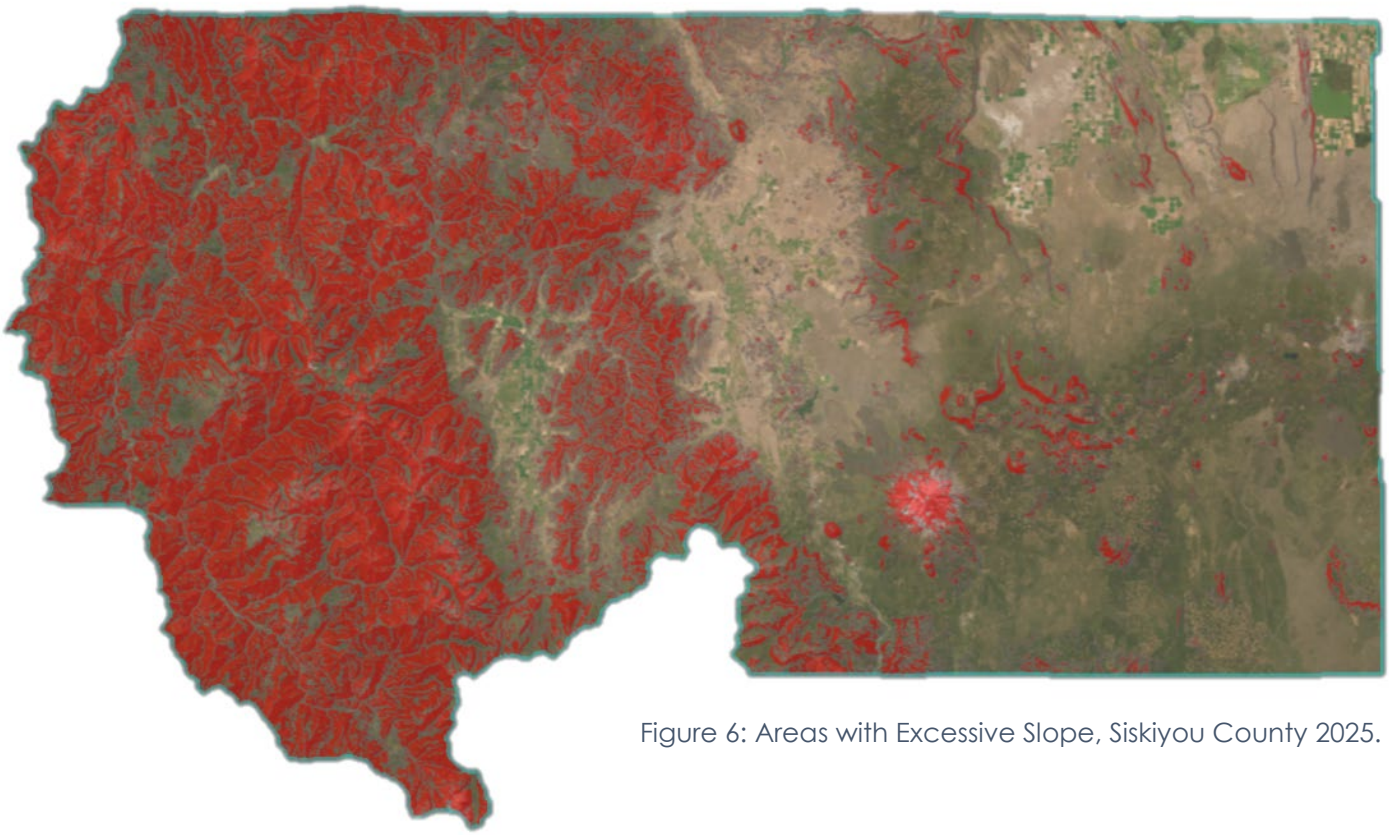


Figure 6: Areas with Excessive Slope, Siskiyou County 2025.

The risk of a landslide is greatest when factors such as excessive slope, weak loose soils, water saturation, prior history of landslides, active earthquake faults, and improper grading are present. Wildfire burn scars are especially susceptible to landslides during subsequent rain events. During the winter months, rockfalls on Highway 96, can often result in road closures.

While efforts have been taken by the county through the development process to minimize landslide potential, some hillside development predates the imposition of grading and zoning requirements. For this reason, older homes built on a slope may be more susceptible.

Earthquake Hazard
An earthquake is caused by a sudden slip between tectonic plates. In Siskiyou County, few earthquakes will exceed a magnitude of 2.5 (meaning they are not felt but can be captured by a seismograph) and even fewer will exceed a magnitude of 4.5 (meaning they are often felt but only cause minor damage.)

What Happens During an Earthquake?

Fault creep is the slow, constant slippage that can occur on active faults absent an earthquake. Surface rupture may occur suddenly during an earthquake or slowly in the form of fault creep. This slow surface creep offsets and deforms curbs, streets, buildings, and other structures that lie near the fault.

Surface Rupture occurs when movement on a fault deep within the earth breaks through to the surface. Not all earthquakes result in surface rupture.

Land Subsidence is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials.

Liquefaction takes place when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. Liquefaction beneath buildings and other structures can cause major damage during earthquakes.

Ground shaking describes the vibration of the ground during an earthquake. The extent of ground shaking depends on the magnitude and intensity of the earthquake, and distance from the epicenter.

The Pacific and North American Plates

In California there are two tectonic plates, the Pacific Plate and the North American Plate. The Pacific Plate consists of most of the Pacific Ocean floor and the California Coastline. The North American Plate comprises most of the North American Continent and parts of the Atlantic Ocean floor. The major boundary between these two plates is the 650 mile long San Andreas Fault.

Cascadia Subduction Zone

The Cascadia subduction zone is an area where the Explorer, Juan de Fuca, and Gorda plates are moving eastward, sliding beneath the much larger North American Plate. The zone varies in width and lies offshore beginning near Cape Mendocino, Northern California, passing through Oregon and Washington, and terminating at about Vancouver Island in British Columbia. The North American Plate itself is moving slowly in a southwest direction, sliding over these smaller plates as well as the larger oceanic Pacific Plate, which moves in a northwest direction.

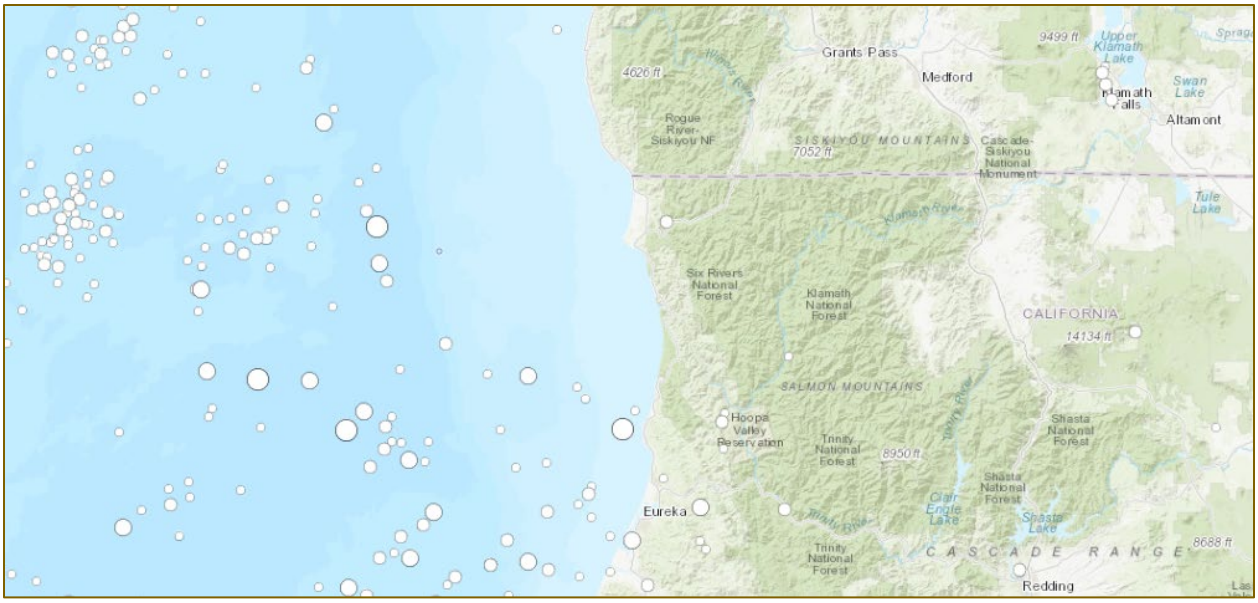


Figure 7: Earthquake Distribution in the Pacific Northwest, U.S. Geological Survey 2025.

Earthquakes in the Pacific Northwest

Most earthquakes in the Pacific Northwest occur in the Pacific Ocean as shown in Figure 7 above. Earthquake epicenter locations are marked by a white circle. Size differences between the white circles indicate the magnitude of the earthquake, with larger circles representing larger magnitude earthquakes.

FEMA National Risk Index

Risk Index Rating

Very High	Relatively High	Relatively Moderate	Relatively Low	Low

The higher the Risk Index Score, the greater the risk posed by the hazard. The maximum score is 100. Siskiyou County's Earthquake Risk Index Score is 94.6. According to FEMA, there is a Relatively Moderate risk of Earthquake in the county. The Expected Annual Loss from the Earthquake Hazard is $6,190,981.

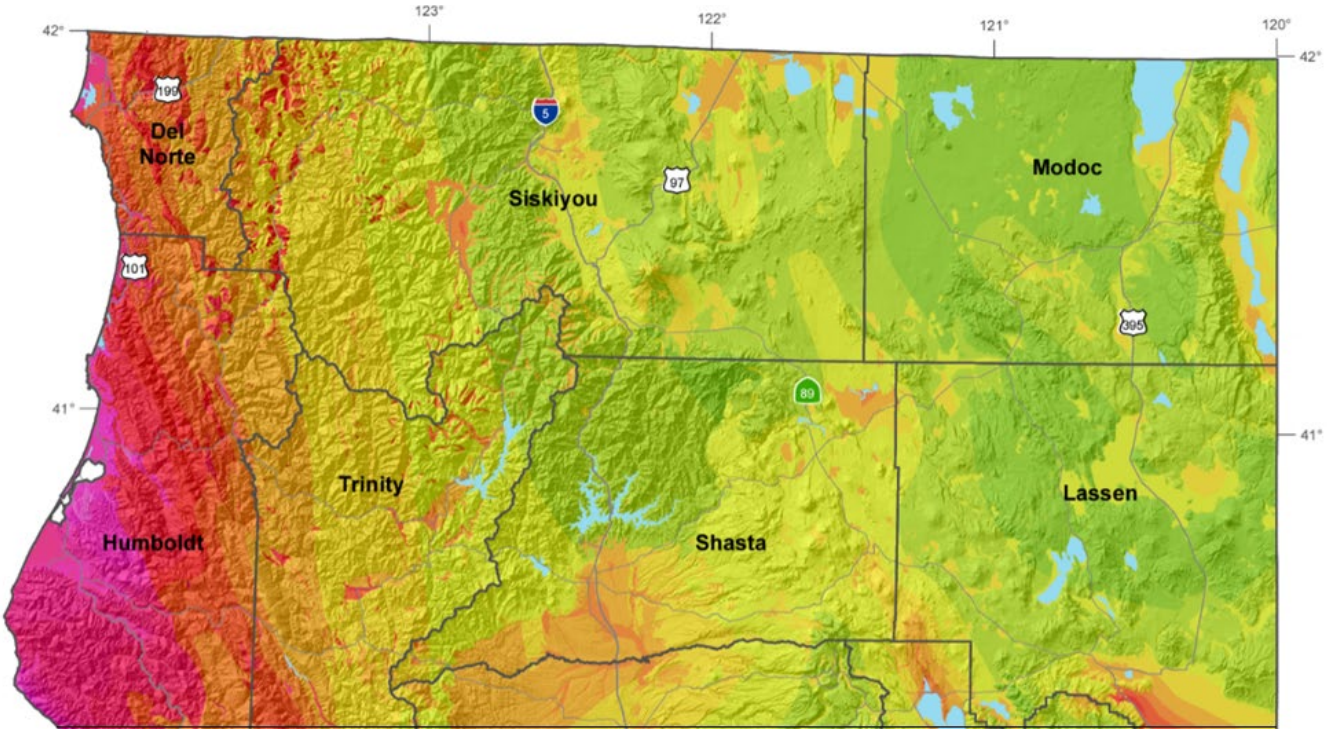
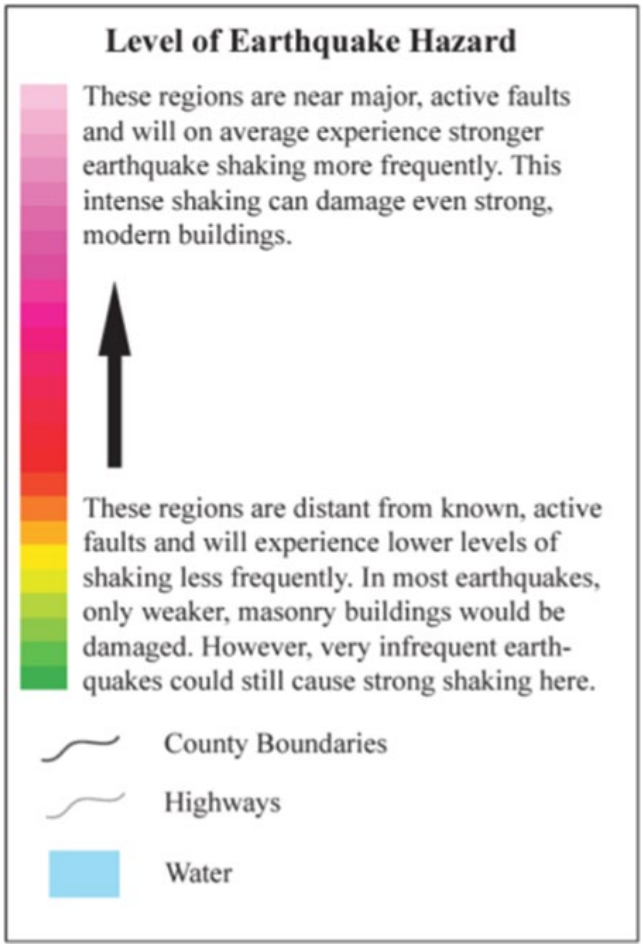


Figure 8: Earthquake Intensity Mapping, California Geological Survey 2025.

Earthquake Intensity

The California Geological Survey has mapped minor earthquake fault zones (EFZ) in *Dorris*, *MacDoel*, *Sams Neck*, *Porcupine Butte*, *Indian Spring Mountain*, *East of Pondosa*, *Timbered Crater*, *Rainbow Mountain*, *Tennant*, *Garner Mountain*, *Bray*, *Sharp Mountain*, *Red Rock Lakes*, and *Sheep Mountain*. Even with earthquake fault zones located in the eastern part of the county, there is an extremely low chance of a damaging earthquake occurring.



Magnitude is an *objective measure* of an earthquake's size at its release, typically reported by the moment magnitude (Mw) scale, which looks at the distance a fault moves, and the force required to move it. Most earthquakes in the county are 2.5 or less in magnitude. **Intensity** is a *subjective measure* of the effects of an earthquake measured by the Modified Mercalli Intensity Scale (MMI).

Moment Magnitude Scale (Mw)

Magnitude	Earthquake Effects
2.5 or less	Usually not felt but can be recorded by seismograph.
2.5 to 5.4	Often felt and causing only minor damage.
5.5 to 6.0	Slight damage to buildings and other structures.
6.1 to 6.9	May cause a lot of damage in very populated areas.
7.0 to 7.9	Major earthquake. Serious damage.
8.0 or greater	Great earthquake. Can destroy communities near the epicenter.

Modified Mercalli Intensity Scale (MMI)

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Vibrations similar to a passing truck.
VI	Light	Felt indoors by many, outdoors by a few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make crackling sound. Sensation like heavy truck striking building.
V	Moderate	Felt by nearly everyone, many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heaving furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very Strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimney stacks, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damaged considerable in specially designed structures; frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wood structures destroyed; most masonry structures destroyed with foundations.

Volcano Hazard

The *National Volcanic Threat Assessment* (2018) provides threat rankings for 161 U.S. volcanoes with the greatest potential for eruptions based on objective measures of volcano hazards and the exposure of people and infrastructure to those hazards.

National Volcanic Threat Assessment (2018)

Very High	High	Moderate	Low	Very Low

Rank	Volcano	State	Threat Group	Latitude	Longitude
5	Mount Shasta	CA	Very High	41.42	-122.20
45	Medicine Lake	CA	High	41.58	-121.57

Home to the Lava Beds National Monument, Mount Shasta, and the Medicine Lake volcano, Siskiyou County has significant volcano hazard exposure.

Mount Shasta is ranked No. 5 (*very high threat*) on the *2018 National Volcanic Threat Assessment* list for U.S. volcanoes. Medicine Lake volcano is ranked No. 45 (*high threat*). This differs from the 2024 FEMA risk assessment which classifies the county as having a Relatively Moderate risk of volcanic activity.

FEMA National Risk Index

The higher the Risk Index Score, the greater the risk posed by the hazard. The maximum score is 100. Siskiyou County's Volcanic Activity Risk Index Score is 78.7. According to FEMA, there is a Relatively Moderate risk of volcanic activity in the county. Should it occur, expected annual loss from volcanic activity is estimated to be 1.1 million dollars.

Mount Shasta Volcano

Located in southern Siskiyou County, Mount Shasta is the 5th highest volcano in California. It sits on the remnants of an older volcano that collapsed around 300,000 years ago. Eruptions around 11,000 years ago created Black Butte. Mount Shasta's record of eruptions indicates there is an eruption every 800 to 600 years.

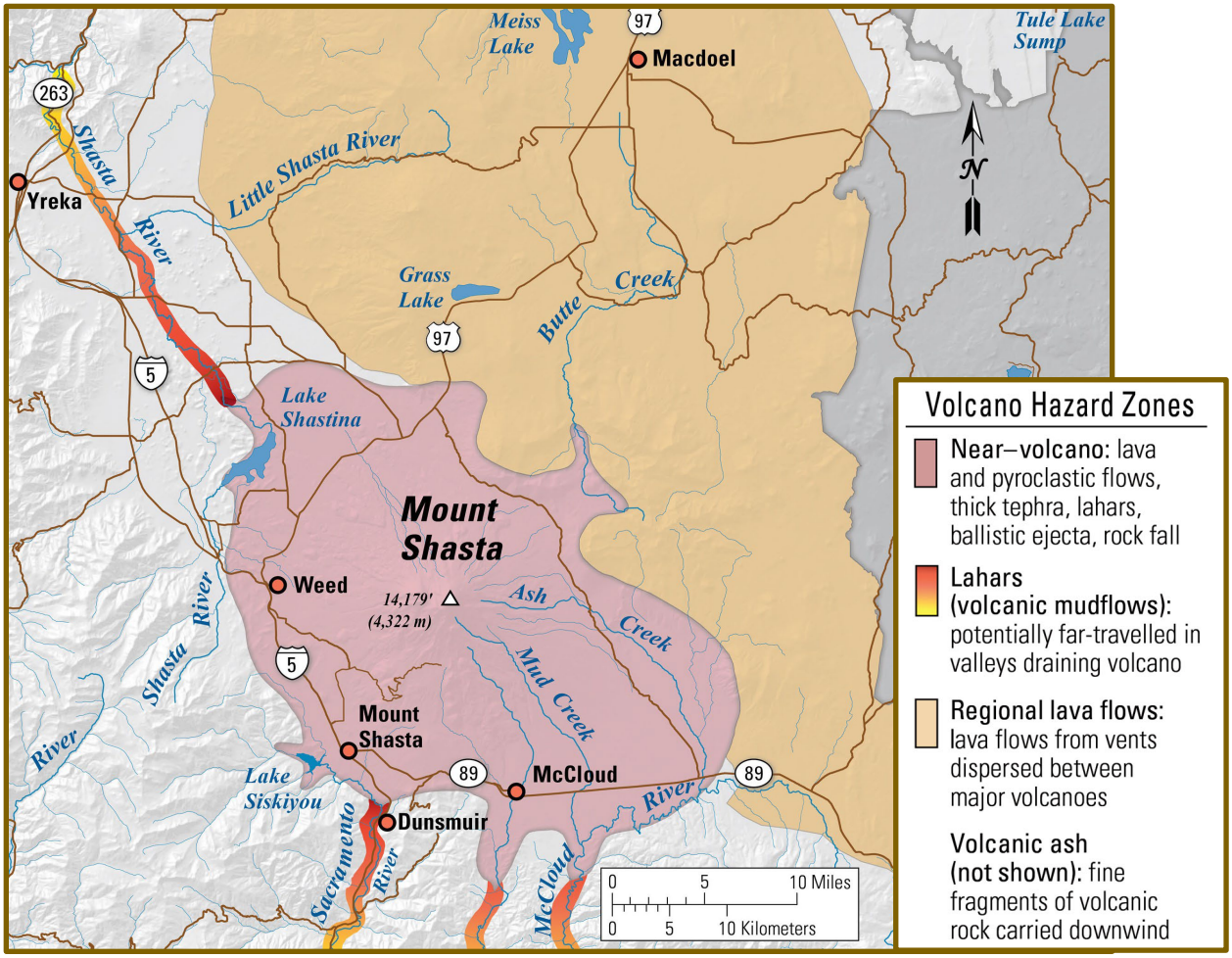


Figure 9: Mount Shasta Eruption Analysis, U.S. Geological Survey 2025.

If Mount Shasta erupted, modeling indicates that large volcanic mudflows could engulf the Shasta, Sacramento and McCloud Rivers. The cities of Weed, Mount Shasta and McCloud would be subjected to ballistic ejecta and rock fall, while volcanic ash would blanket most of the county.

Medicine Lake Volcano

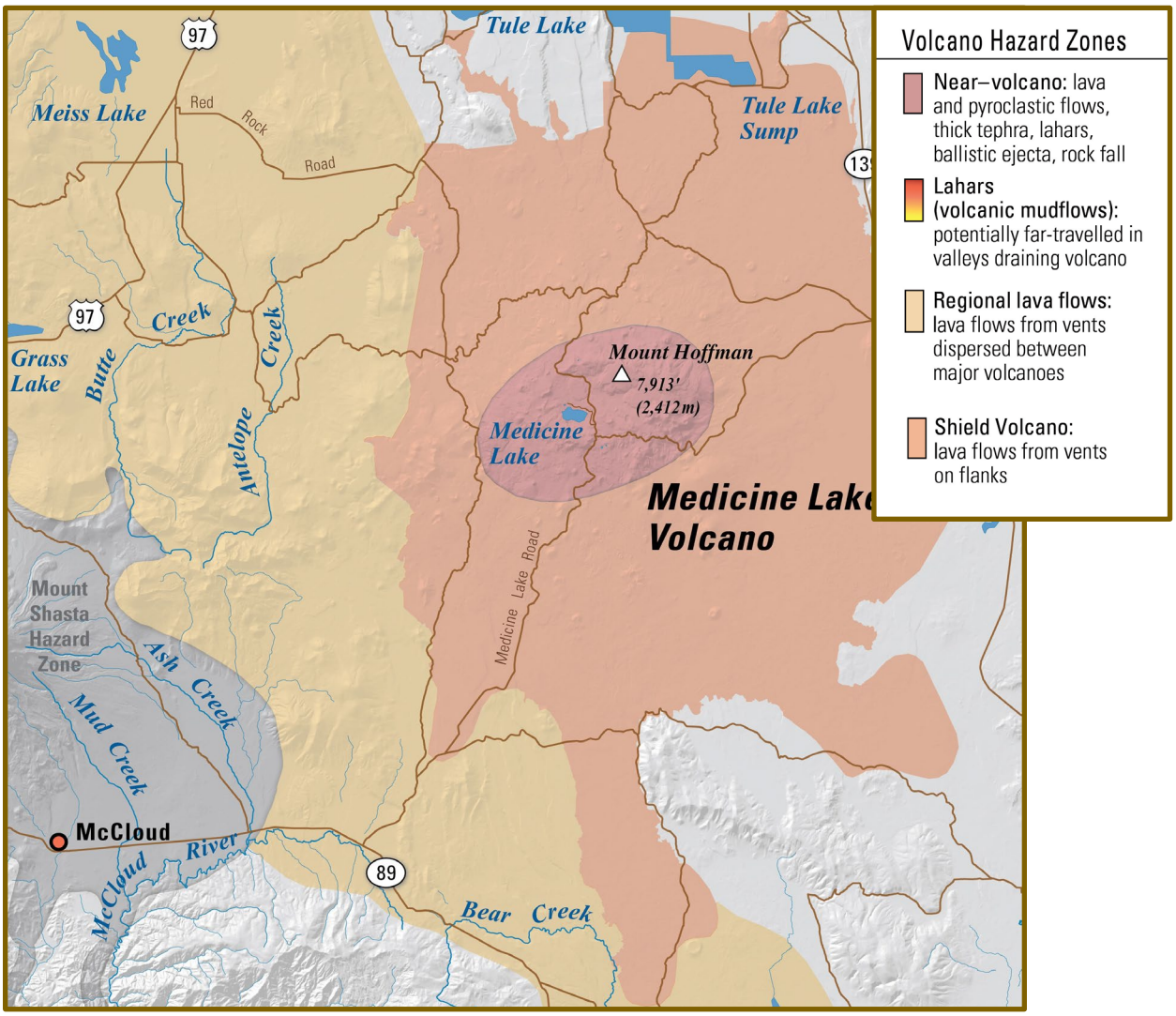


Figure 10: Medicine Lake Eruption Analysis, U.S. Geological Survey 2025.

Located in eastern Siskiyou County, this area is known as the Medicine Lake Highlands. In the last 13,000 years, nonexplosive eruptions helped create the Lava Beds National Monument. More recent eruptions created Little Glass Mountain about 1,000 years ago, and Glass Mountain about 950 years ago. Due to its nonexplosive nature, an eruption would result in lava flows rather than volcanic ash being scattered across the county. This area of the county is sparsely populated and property damage is expected to be minimal.

Geologic & Seismic Hazards Vulnerability Assessment

Landslides

Much of the western part of the county consists of slopes greater than 15 percent. These areas are susceptible to the landslide hazard. Accelerated erosion of wildfire burn scars due to wind and heavy rain often result in landslides in these areas. Most landslides in the county occur in remote locations so that the incident will go unreported or unnoticed. When they impede major travel routes, landslides and rockfalls can cut off whole communities from the rest of the county.

Mudslides

Mudslides generally occur in areas that are vulnerable to the landslide hazard after heavy precipitation events. They can also occur when local waterways exceed their capacity due to flooding. During the summer months, glacier melt from Mount Shasta has the potential to result in large mudslides and debris flows which can impact roads and critical infrastructure. The community of McCloud is experiencing this phenomenon on an annual basis.

Earthquakes

While Siskiyou County is located in a seismically active area, the chance of a catastrophic earthquake resulting in substantial damage is low. Earthquake fault zones within the county are located in sparsely populated areas. When they do occur, few earthquakes within the county will exceed a magnitude of 2.5, meaning they are not felt but can be captured by scientific instruments.

Volcanic Activity

According to the U.S. Department of the Interior, Mount Shasta does not erupt on a regular timescale. Research indicates that the volcano erupts episodically with ten or more eruptions occurring in short intervals followed by long periods with few or no eruptions.

It is estimated that the most recent surface eruption on Mount Shasta occurred about 3,200 years ago. The next eruption of Mount Shasta will likely involve weeks or months of precursory earthquakes and ground deformation followed by a series of steam explosions blasting a deep crater at the summit of the volcano.

Like Mount Shasta, an eruption of the Medicine Lake volcano would be preceded by weeks or months of heightened earthquake activity and ground deformation. The most recent eruption in this area occurred 950 years near Glass Mountain. Given the long advance warning time, loss of life during an eruption is expected to be minimal. Property loss in affected areas, however, could be significant.

Chapter 5
Hazardous Materials

Hazardous Materials

Mishandling of hazardous materials can threaten environmental quality and result in soil and groundwater contamination. Hazardous materials are defined as those materials that pose a significant present or potential threat to human health and safety or to the environment if released into the workplace or the environment. These materials include chemicals, radioactive waste, explosives, natural gas, petroleum, pesticides, agricultural chemicals, and household cleaning products. Exposure to hazardous materials can result in lung damage, cancer, cardiovascular disease, low birth weight infants, and other negative health outcomes that reduce life expectancy.

Most fuels, lubricants, solvents, and paints are considered hazardous materials under the U.S. Resource Conservation and Recovery Act, which is implemented at the local level by the Siskiyou County Environmental Health Department. Businesses and institutions that use substantial quantities of such materials are required to adhere to strict regulations regarding the handling, transport, and storage of hazardous materials. Such facilities include car repair shops, gas stations, construction firms, research and development and manufacturing firms, schools, medical facilities, and trucking operations.

In addition, improper storage and disposal of household hazardous waste can also pose risks to people and the environment. For example, many people are unaware that common household products such as batteries, paint, and pesticides, are not allowed to be disposed of in landfills.

Past Hazardous Materials Spills

In 2006, a truck overturned on Highway 96, dumping its cargo, a toxic petroleum based asphalt emulsion, into the Klamath River, creating an eight mile plume downriver. Most of the spill did not reach the river due to the quick thinking of a retired U.S. Forest Service employee, Ed Masonheimer, who got a shovel from his pickup truck and began building a sand and gravel dam to impede the 7,000 gallons of road sealant. Nevertheless, the incident did result in a significant fish kill.

In 1991, a Union Pacific Railroad train derailment occurred below the Box Canyon Dam, upstream from the City of Dunsmuir. A railroad car fell into the Sacramento River, spilling 19,000 gallons of the herbicide, Metam sodium, into the river. Referred to as the Cantara Loop Spill, this hazardous materials incident killed nearly all aquatic life and affected the entire river ecosystem.

In 2021, a Union Pacific Railroad train derailment involving 18 train cars occurred near the site of the 1991 Cantara Loop Spill. No injuries or hazardous material releases were reported at the time.

In 2022, a Union Pacific Railroad train derailment involving 9 train cars occurred near the site of the 1991 Cantara Loop Spill. No injuries or hazardous material releases were reported at the time.

Hazardous Materials Vulnerability Assessment

Traffic Accidents

Interstate 5 is the main transportation corridor within Siskiyou County. Over 6,000 trucks use Interstate 5 on a daily basis, with the majority of trucks having 5+ axles. All other major routes in the county connect to Interstate 5. Highway 89 intersects I-5 south of Mount Shasta. Highway 97 intersects I-5 in Weed. Highway 3 intersects I-5 in Yreka. Highway 96 intersects I-5 north of Yreka. Together these roads form the bulk of the commercial traffic routes in the county. Starting at the Siskiyou - Shasta County border and ending north of the Weed Airport, I-5 experiences winter weather conditions on an annual basis. Road closures due to snow are not uncommon. The other major traffic routes listed above can also experience icy conditions making travel difficult. Landslides and rock falls on Highway 96 occur on a regular basis.

Railroad Spills

Union Pacific Railroad is the primary rail operator in Siskiyou County, transporting a variety of commercial and industrial products. The company's railyard in the City of Dunsmuir, has existed since the early 1900s. Since that time, unknown amounts of fuels have seeped into the soil, groundwater, and the Upper Sacramento River. Current efforts to stop contamination from entering into the river include excavation of impacted material along the surface of the riverbank and installation of oil barriers in the river. The Central Valley Regional Water Quality Control Board has issued a Cleanup and Abatement Order for the Dunsmuir site. In addition, the U.S. Environmental Protection Agency has issued a Clean Water Act Order for the location. Clean up commenced in 2022 and is expected to be completed by the end of 2025.

Chapter 6
Adaptation & Community Resilience

Long Term Changes in Weather Patterns

While rising average temperatures and extreme weather conditions are happening on a global scale, different areas are experiencing these changes in dissimilar ways. County efforts to improve community resilience should bring multiple benefits. For example, restoration of wetlands and the conservation of agricultural land can result in multiple benefits such as flood mitigation and increased availability of water.

Rising Average Temperatures

Siskiyou County's historical average temperature is 50.3 degrees Fahrenheit (*1960 – 2000*). By *2099*, under a low emissions scenario, which refers to a projected future where action is taken to reduce GHG emissions, the average temperature would increase by 3.4 degrees to 53.7 ºF. Under a high emissions scenario, which assumes that GHG levels in the atmosphere continue to increase at current rates (meaning no action is taken to cut emissions or reduce consumption), the average temperature would increase by 6.0 degrees to 56.3 ºF, by 2099.

Scenario	Average Temperature	Change
Historical (1960 - 2000)	50.3 °F	+0.0 °F
Low Emissions (2000 - 2099)	53.7 °F	+3.4 °F
High Emissions (2000 - 2099)	56.3 °F	+6.0 °F

Projected effects are more rain, and less snow, a dwindling snowpack, drought, flooding, melting glaciers, increased erosion, wildfire, warming rivers, pest infestation, invasive species, forest morbidity, reduced crop yields, and keystone species extinction.

Drought Impacts

Category	Description
None	Normal or wet conditions
D0	Abnormally Dry
D1	Moderate Drought
D2	Severe Drought
D3	Extreme Drought
D4	Exceptional Drought

The county is currently experiencing its 28th wettest year to date over the past 130 years. In 2024, precipitation was up 4.64 inches from normal. This was preceded by years of exceptional drought and water curtailments. *Figure 11* below shows the U.S. Drought Monitor drought map for Siskiyou County. The drought map uses four categories of drought, from D1—the least intense—to D4, the most. From 2020 to 2023, the county was in Extreme Drought, with some portions of the county experiencing Exceptional Drought. These oscillating drought conditions are expected to persist and increase in severity, year to year as a consequence of changing weather patterns.

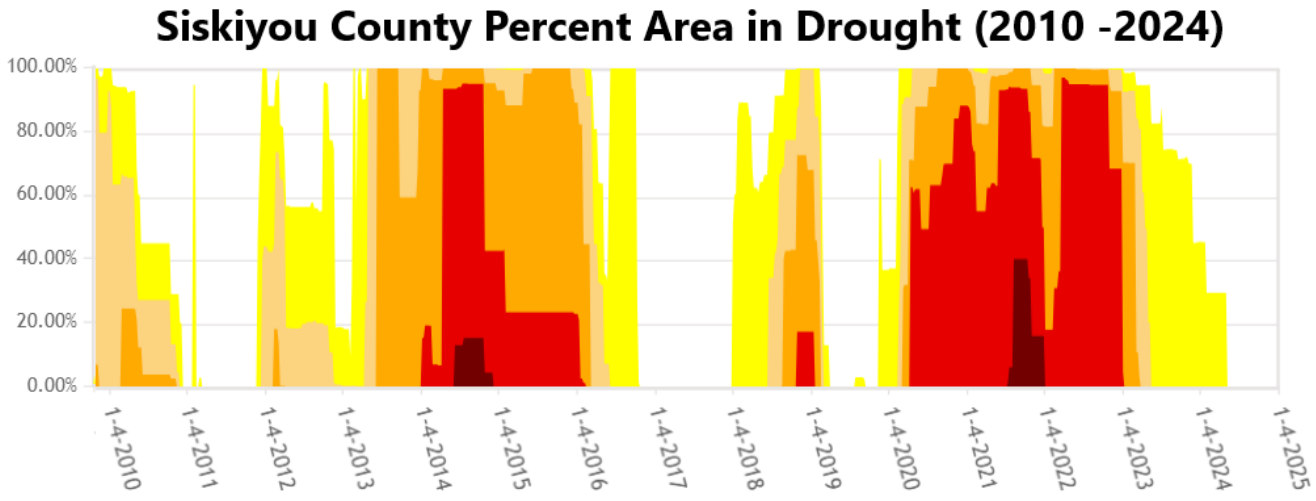


Figure 11:Siskiyou County Drought Conditions, U.S. Drought Monitor 2024.

Reducing GHG Emissions

Fossil fuels – coal, oil and gas – are believed to contribute to rising average temperatures. It is estimated that fossil fuels account for over 75 percent of all GHG emissions and nearly 90 percent of all CO2 emissions. Rising average temperatures are causing long term changes in weather patterns which can pose serious risks to human life and the environment.

In Siskiyou County, the main sources of GHG emissions are stationary sources, area-wide sources, and mobile sources. Stationary sources include fuel combustion, waste disposal, cleaning and surface coating, petroleum production, and industrial processes. Area-wide sources include solvent evaporation from activities such residential fuel combustion, pesticide and fertilizer application, asphalt paving, refrigerants, and waste burning and disposal. Mobile sources such as transportation and wildfire smoke are the largest contributors to GHG emissions in the county.

Siskiyou County is dedicated to reducing GHG emissions through sustainable land use and transportation planning. In 2016, *Senate Bill 32* was passed, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. The Regional Transportation Plan and the Siskiyou County General Plan both include language supporting deceasing GHG emissions by reducing vehicle miles traveled, switching to certified wood stoves, and encouraging alternative forms of transportation.

What is Adaptation and Community Resilience?

Adaptation and Resilience are often discussed together, but it is helpful to distinguish between them. *Adaptation* is an action or set of actions that reduce physical risk to the community. *Resilience* describes a community's state of readiness to face potential risks.

In the public safety context, adaptation involves taking steps to modify behavior or physical conditions to adjust to a changing environment. For example, creating defensible space around existing structures to mitigate against increased wildfire risk is a physical adaptation. On the other hand, discouraging future development in very high fire hazard severity zones would be a behavioral adaptation. In general, adaptation can be thought of as the series of actions that are taken to improve community resilience.

Improving community resilience involves identifying possible risks to the community. *Risk* is a function of two related concepts: *threat* and *vulnerability*. Threats are events that can negatively impact a community and vulnerability is the degree of potential damage to the community. Vulnerability is determined by the sensitivity, exposure, and adaptive capacity of the individual or community.

Managing *Risk* requires addressing either the *Threat* or the *Vulnerability*, or *both*, depending on the situation.

Adaptation and Community Resilience Vulnerability Assessment

BACKGROUND

It is expected that rising average temperatures will exacerbate natural and human made hazards such as wildfire, flooding, and extreme heat. Transmission of vector borne and water borne diseases are also expected to pose increasing public safety risks.

Hazards Related to Rising Average Temperatures

Hazards resulting from long term changes in weather patterns include:

- Drought
- Rainfall flooding
- Extreme heat
- Extreme cold
- Severe Storms
- High winds

Expected Future Impacts

Impacts of rising average temperatures include:

- Increased wildfire
- Poor air quality
- Power outages
- Biodiversity loss
- Infrastructure failure
- Increased erosion
- Water insecurity
- Disease outbreak
- Invasive species

Other Factors to Consider

Rising average temperatures are likely to in result in additional stresses to the community. Such exacerbating factors may include:

- Increased migration
- Food insecurity
- Drug/alcohol abuse
- Displaced populations
- Economic crisis
- Economic inequality
- Increased homelessness
- Inadequate educational systems
- Inadequate health systems
- Inadequate infrastructure

POPULATIONS AT RISK

Rising average temperatures will affect everyone in the county, regardless of socioeconomic status, with many weather related impacts projected to worsen. However, not all individuals will experience these effects equally.

The Work Force

Rising average temperatures disproportionately impacts workers because they often work outdoors, in fields such as agriculture, forestry and logging, construction, transportation and emergency response. This makes them more exposed to temperature and weather extremes, poor air quality, and disease. While inside, workers may often be working in hot indoor environments that lack adequate air conditioning, such as manufacturing plants, warehouses, and lumber mills.

An Aging Population

Older adults are more likely to have health conditions that make them more sensitive to hazards such as heat and air pollution, which can often worsen their existing illnesses. Many older adults may also have compromised immune systems, which makes them more prone to severe illness from insect and water related diseases that could become more common with rising temperatures. Limited mobility also increases risk before, during, and after an extreme weather event.

The Homeless Population

This population segment lacks the necessary resources to mitigate against the risks posed by rising temperatures. Without adequate shelter, individuals are more likely to experience prolonged exposure to extreme weather conditions such as severe heat and winter storms. This population segment is expected to increase as more people are displaced due to natural disasters such as flooding and wildfire.

Individuals with Disabilities

Individuals with disabilities or functional needs, depending on their circumstances, may be more vulnerable to the impacts of rising temperatures. This population segment faces similar challenges experienced by older adults. Increasing temperatures are expected to result in more heat related illnesses and deaths among vulnerable groups, including people with disabilities. This is especially true for individuals with mental health issues, those who depend on others for assistance in daily living, and those with limited mobility or access to transportation.

Low Income Population

This population segment may lack the financial resources needed to adequately mitigate against the risks posed by rising temperatures and changes in long term weather patterns. These individuals are also more likely to live in areas that are prone to flooding and extreme weather. They are also less likely to have insurance to compensate for losses in the event of a disaster.

Children

Children are not the primary cause of rising average temperatures, however they are the ones who are and will be most affected by it. Children breathe at a faster rate than adults and their bodies are still developing, which can make them more vulnerable to extreme heat and poor air quality. Children also tend to spend more time outdoors than adults, which increases their exposure to heat and cold, rain and snow, outdoor allergens, and vector borne disease. Displacement and disruptions to home life and schooling are expected as a result of increasing temperatures.

PROPERTY DAMAGE AND ECONOMIC IMPACT

All property located within the county could be impacted by the secondary effects of increasing temperatures. Floods and wildfires often result in a total loss of property.

The Local Economy

The local economy could be impacted by increasing temperatures. For example, Mount Shasta Ski Park and Nordic Center did not open for the 2013-2014 season and had an extremely limited season in 2014-2015 as a result of limited snowfall in the winter months. The ski park's closure led to a steep decrease in regional tourism. Wildfires also have a negative impact on tourism as visitors are deterred by the smoke and air quality. Future projections of severe heat and drought are likely to lead to decreasing crop yields and reduced workforce productivity in outdoor occupations.

Critical Facilities and Infrastructure

Secondary effects of increasing temperatures have the potential to damage physical infrastructure and disrupt services. A disruption to critical facilities and infrastructure often creates cascading impacts that can heighten the severity of a hazard event.

ENVIRONMENTAL IMPACTS

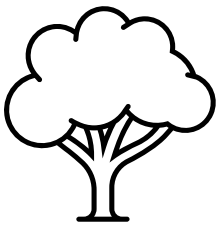
Increasing temperatures affect the survivability of all species as hazards posed by long term changes in weather patterns result in reduced habitat and biodiversity.

Drought

Rising stream temperatures and low water levels due to drought can affect certain fish species during critical stages of their life cycle, including development and spawning. Low water levels can also block upstream migration for fish returning to spawn. In some cases, lower water availability may also result in hypoxia and mass mortality events.

Wildfire

Wildfires can result in soil erosion, causing landslides and threatening the aquatic environment. After a fire event, on-native plant species frequently invade burned areas reducing native habitat. Dead trees can lead to insect infestations that if not quickly removed, can spread to healthy forests. Wildfire can also burn so hot that it sterilizes the soil inhibiting habitat recovery.



Chapter 7
Emergency Management

The county emphasizes interagency coordination to better prepare for and respond to natural and human made disasters. What follows is a summary of the roles played by different agencies when coordinating a unified response to an emergency situation.

California Highway Patrol

The California Highway Patrol is responsible for enforcing traffic laws on state roads and highways that run through the county. CHP works together with local authorities to ensure that traffic moves quickly out of the hazard area during an emergency situation.

Siskiyou County Sheriff's Office

The Siskiyou County Sheriff's Office (SCSO) is the primary law enforcement agency for the unincorporated area of the county. Agency headquarters are located in Yreka, California, with satellite offices in each of the incorporated cities. SCSO is responsible for determining when and where evacuation warnings or evacuation orders should be issued. SCSO oversees the movement of people along designated evacuation routes leading away from the hazard area. The department is responsible for securing the perimeter of the affected areas to prevent looting and unauthorized entry. Deputies play a crucial role in communicating information to residents regarding the need to

evacuate or shelter in place. Deputies also conduct welfare checks to make that residents who need assistance are safely evacuated.

Local Police Departments

Local police departments, in coordination with the Sheriff's Office, communicate evacuation warnings and orders to residents in their jurisdictions. Police officers help to ensure an orderly withdrawal along designated evacuation routes and have primary responsibility for conducting welfare checks within their service area.

Local Fire Departments

The primary role of local fire departments is to defend properties and structures. However, if residents do not heed evacuation orders, firefighters will prioritize saving people first and property second. Local fire departments have a better chance of extinguishing fires when residents comply with evacuation orders.

Yreka Interagency Command Center (YICC)

CAL FIRE operates an emergency command center known as the *Yreka Interagency Command Center* (YICC). The YICC is located at the Siskiyou Unit headquarters in Yreka and is a collaboration of CAL FIRE, U.S. Forest Service, and county staff. YICC provides dispatching services for CAL FIRE, USFS, 30 local government fire departments, and 6 ambulance companies. YICC is responsible for emergency call taking, dispatching, and tracking of resources on a 24 hour basis.

Siskiyou County Office of Emergency Services (OES)

Siskiyou County Office of Emergency Services is responsible for ensuring a coordinated response from regional, state, and federal agencies when responding to and recovering from emergencies and disasters.

Siskiyou County Public Health Department
The Public Health Department is responsible for ensuring a coordinated response to public health emergencies such as the 2019 coronavirus disease (COVID-19) pandemic.

Emergency Medical Services
Emergency medical services are provided by two area hospitals, Mercy Medical Center, Mt. Shasta and Fairchild Medical Center in Yreka.

Designated Shelter Sites
These community serving facilities support and coordinate resource distribution and services before, during, or after a hazard event. They are often utilized during heat waves, wildfire smoke, floods, and earthquakes.

The Access and Functional Needs (AFN) Registry is a comprehensive database designed to identify and track individuals who may require additional assistance during emergencies or disasters due to their specific access and functional needs. These needs may arise from various factors such as physical, sensory, cognitive, or developmental disabilities, chronic illnesses, language barriers, or limited mobility. The registry serves as a tool for emergency management agencies, first responders, and service providers to proactively identify and prioritize resources for those who require specialized assistance. The AFN registry aims to enhance preparedness, response, and recovery efforts by facilitating effective communication, coordination, and support for individuals with unique needs, ensuring their equitable access to emergency services, and promoting their overall resilience in the face of disasters. Participation in the AFN Registry is completely voluntary. Information submitted is strictly confidential and is only used in the event of an emergency.

ReadySiskiyou - Alerts is the county's emergency alert program. The messaging system provides alerts about hazards and emergencies, including severe weather, unexpected road closures, missing persons and evacuations of buildings or neighborhoods. Participants receive time sensitive messages in their preferred format, such as an email, text message, or telephone phone call to a home, cell, or business number.

Alerts and Evacuation Procedures

Evacuation procedures are most effective when residents are aware of the emergencies that are most likely to affect them and have ample time and support to prepare their own emergency plans. The county has a variety of systems and procedures in place to protect residents and visitors in the event of an emergency. Emergency alert and assistance systems include fire and law enforcement vehicle loudspeakers, emergency response phone numbers such as 911, agency websites, and digital tools.

Chapter 8
Evacuation Planning

Background

Evacuation is a process by which people are moved from a place of immediate or anticipated danger, to a place of safety, and offered appropriate temporary shelter facilities. When the threat to safety is gone, evacuees are able to return to their normal activities, or to make suitable alternative arrangements. The overarching goal of evacuation planning is to maximize the preservation of life while reducing the number of people that must evacuate and the distance they must travel to seek safe refuge.

The county is unlikely to be the focus of a terrorist attack. The county could however become a refuge for persons displaced by an attack or natural disaster elsewhere in in the country. The most likely evacuation scenario for the county is a forced evacuation due to a natural disaster such as wildfire, flood, landslide, or volcanic eruption.

Ensuring Adequacy of Emergency Routes

Although most primary roads are of sufficient width to allow for passage of emergency vehicles and evacuating residents, many of the secondary roads within the county are narrow or may have few if any

ingress and egress options. This makes it exceedingly difficult for engines, tankers, and other firefighting equipment to enter the hazard area during the time that residents are supposed to be evacuating.

Additional Information Available
For information on residential developments without at least two emergency evacuation routes please see **Appendix E —— Page 122**.

Accounting for Vulnerable Populations

Effective evacuation planning must consider the needs of at risk or special needs groups, including individuals with physical, cognitive, and emotional disabilities, those without access to transportation, as well as plans for sustenance of evacuees. In addition, to comply with federal law, accommodations need to be made for the evacuation of service animals (*Americans with Disabilities Act*) and household pets (*Pets Evacuation and Transportation Standards Act*), during and following a major disaster or emergency.

Accounting for Pets and Livestock

Ensuring the evacuation, transportation, care, and sheltering of animals is an important factor in evacuation planning. Many people will refuse to evacuate their homes if they cannot take their pets with them. It is estimated that up to 25 percent of pet owners will refuse to evacuate without their animals. Furthermore, about 30-50 percent of pet owners will accidentally leave pets behind, and approximately 50-70 percent of individuals who leave animals behind, will attempt to re-enter an evacuated site to rescue their animals. Pets left behind in the evacuated area can pose a danger to first responders. Therefore, it is essential that evacuation plans address pet evacuation and sheltering procedures to protect both human and animal health and safety.

Conducting Evacuations

With advanced warning, evacuation can be effective in reducing injury and loss of life. Evacuation routes should be developed with the intent to direct traffic toward the nearest highway. Due to vehicle carrying capacity, highways are logical routes by which to move people away from danger areas. Most evacuees will use their own vehicles to evacuate, however, evacuation assistance will need to be considered for individuals with disabilities and others with access and functional needs, including, but not limited to, those without access to personal vehicles.

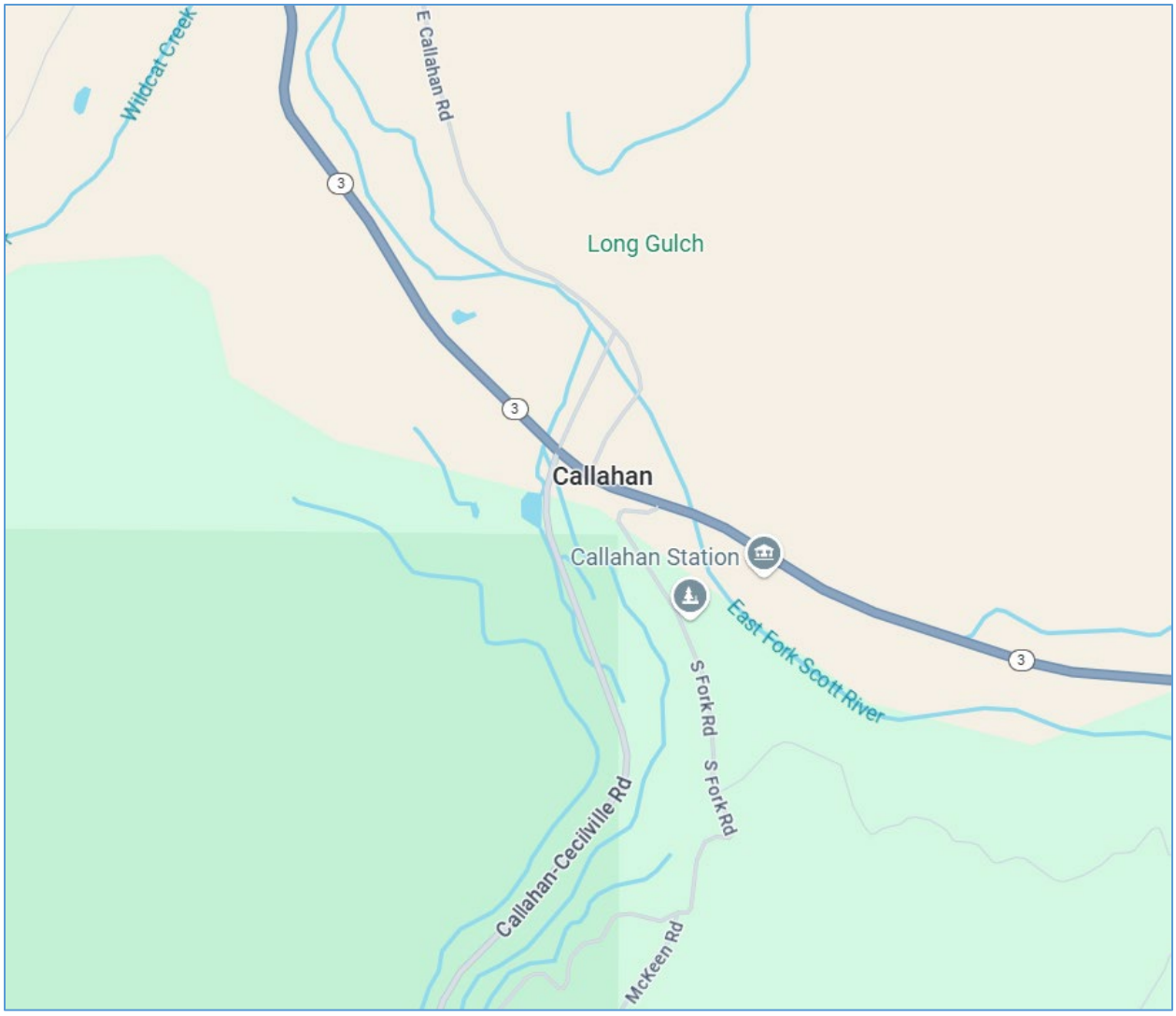
Evacuation Routes

During an evacuation, the routes utilized will depend on the type, location, and extent of the emergency. While it is impossible to identify a set of evacuation routes which will apply to all situations, it is expected that the existing county road system will be the most suitable option for carrying out mass evacuations.

Six major highways traverse Siskiyou County and are the primary evacuation routes for the community.

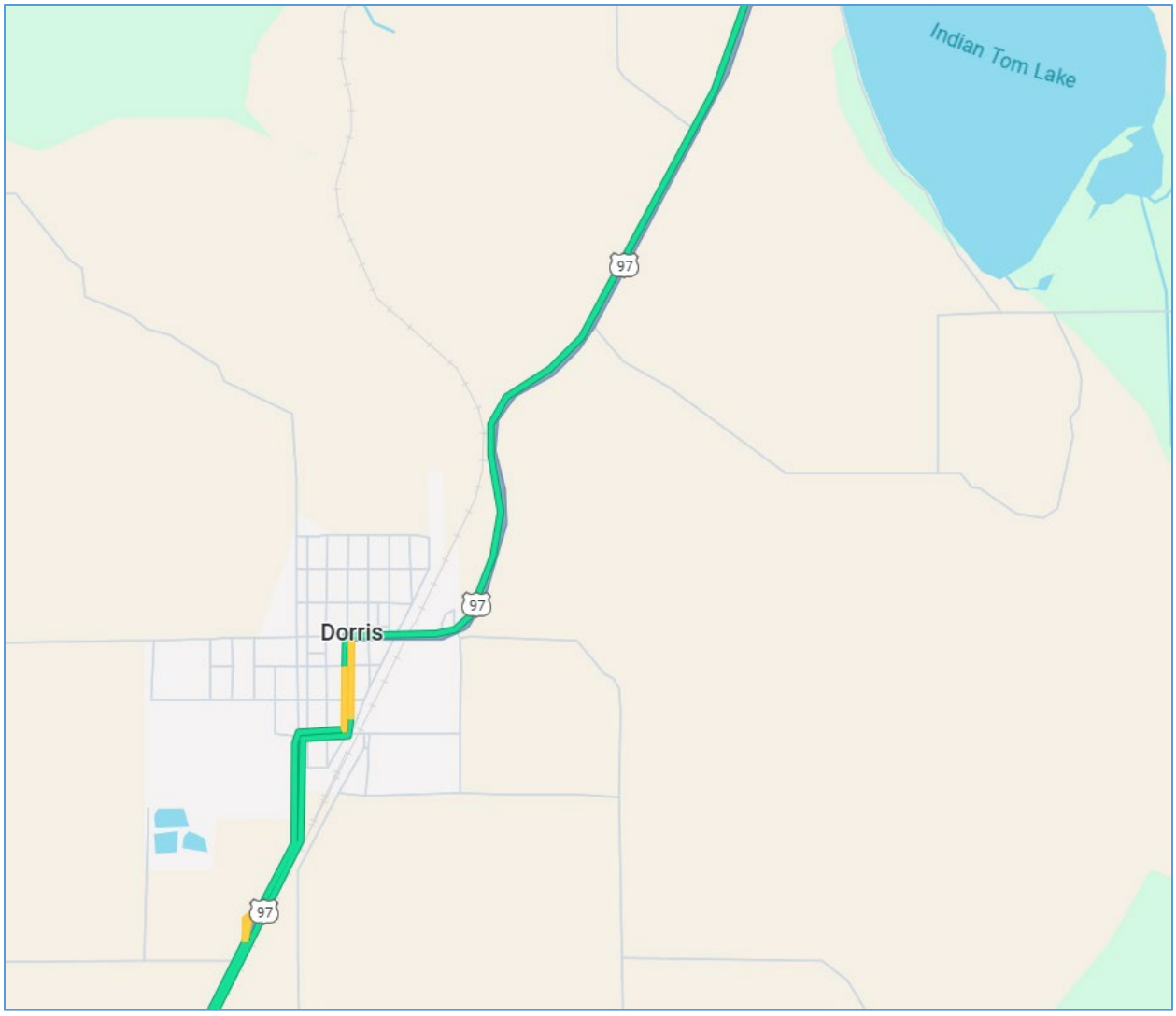
- Interstate 5
- Highway 3
- Highway 89
- Highway 96
- Highway 97
- Highway 161

Of these six major traffic corridors, Interstate 5, Highway 89, and Highway 97 are the only major transportation routes in and out of the County. In compliance with *Govt. Code §65302.15* (*Assembly Bill 747*), the Safety Element identifies evacuation routes and locations under a range of emergency scenarios. The evacuation routes, listed on the following pages, are applicable to all emergency scenarios likely to be encountered.



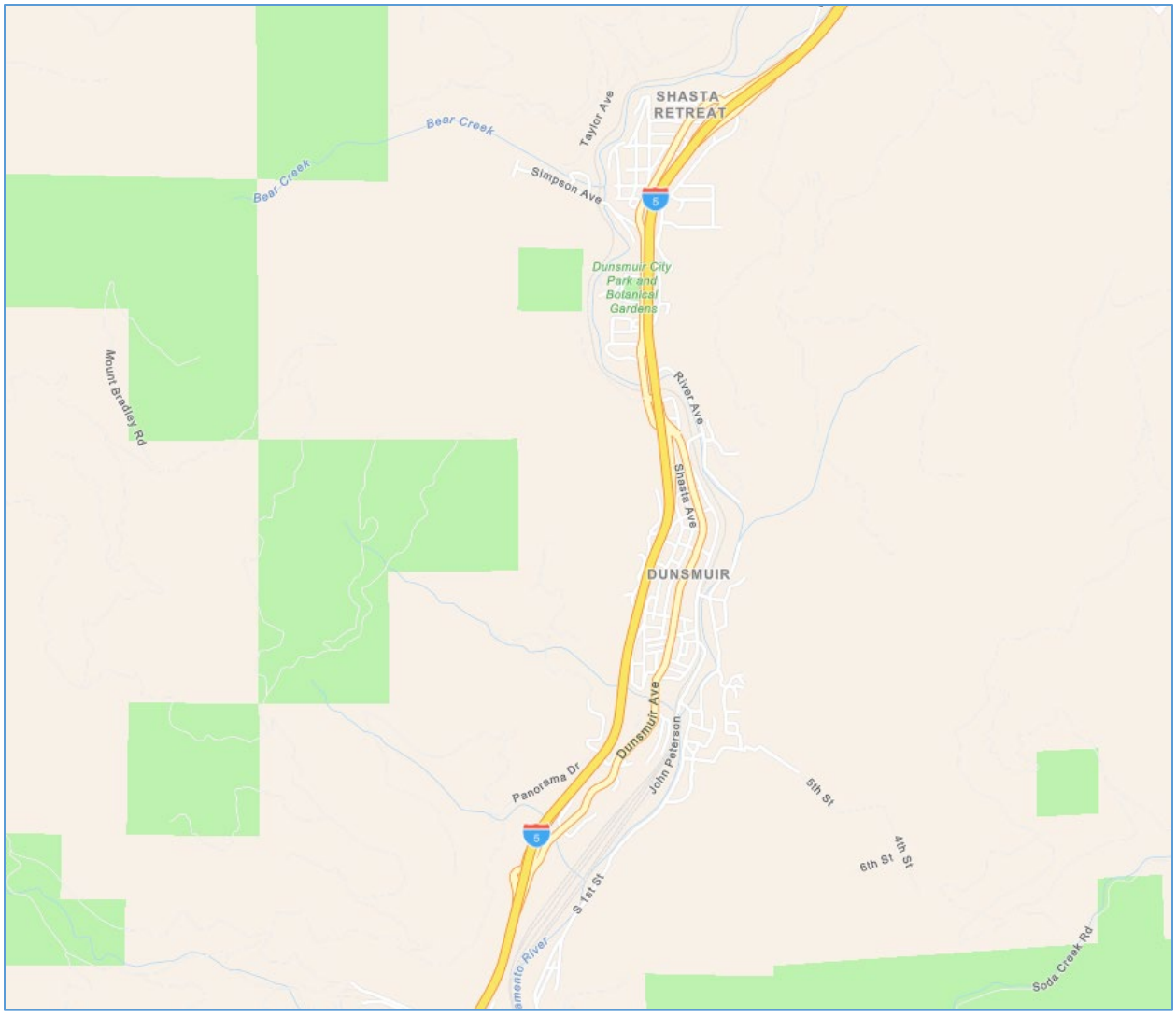
Evacuation Routes for Callahan, CA.

The community of Callahan (Population less than 100) is located at the intersection of Highway 3 and Cecilville Road, near the south end of Scott Valley, where the south and east fork of the Scott River meet. Primary evacuation routes for Callahan are Highway 3, East Callahan Road, and Callahan-Cecilville road, all of which are in the 100 Year Floodplain. Schools, churches, and the Etna rodeo grounds could serve as safe locations for evacuees during a hazard event.



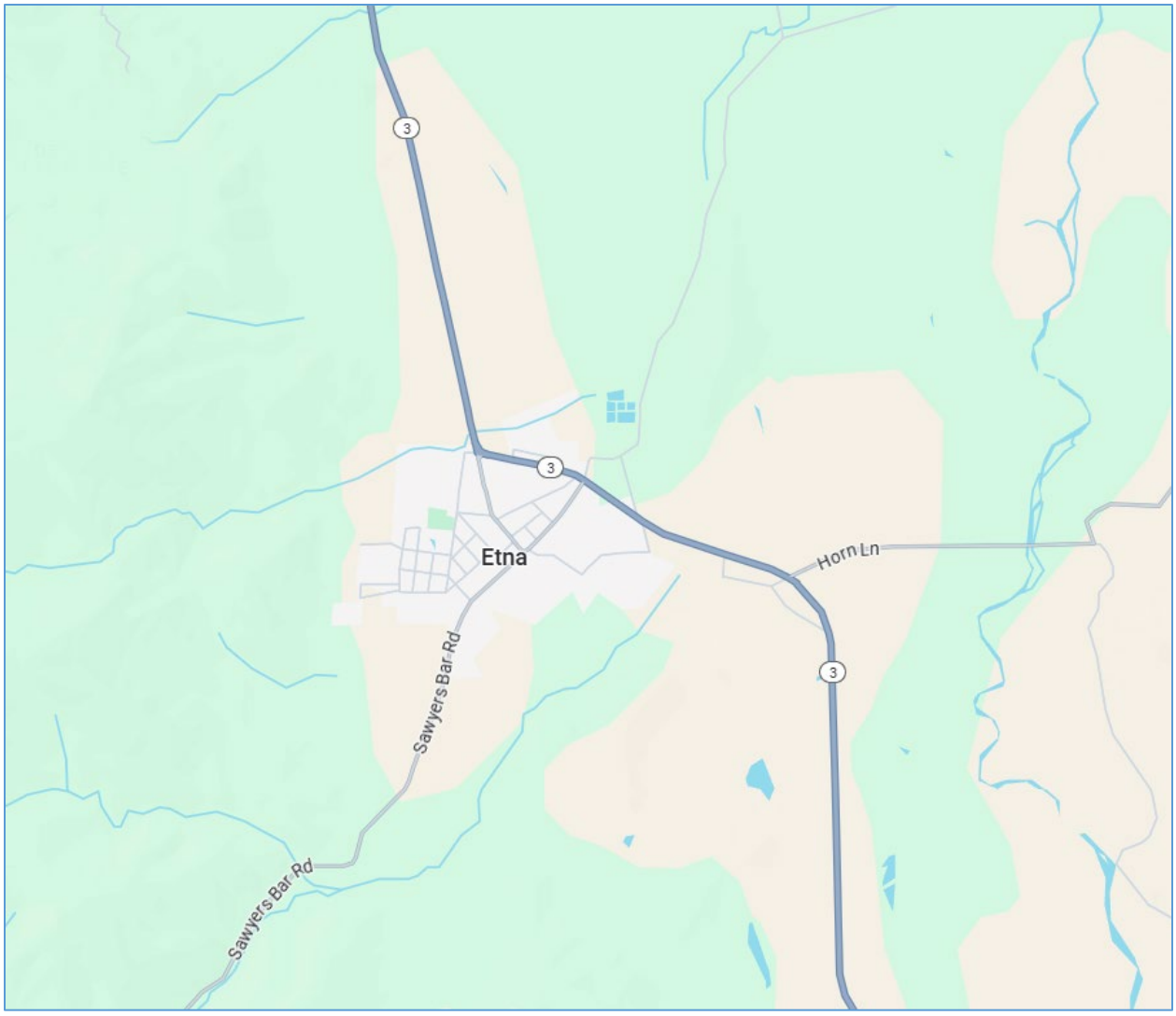
Evacuation Routes for Dorris, CA.

The City of Dorris (Population 822) is in the northeastern portion of Butte Valley, slightly south of the Oregon border, along Highway 97. The primary evacuation route out of Dorris is Highway 97, north to Oregon, and south to the City of Weed. Schools, churches, and community centers in Weed and Tulelake could serve as safe locations for evacuees during a hazard event.



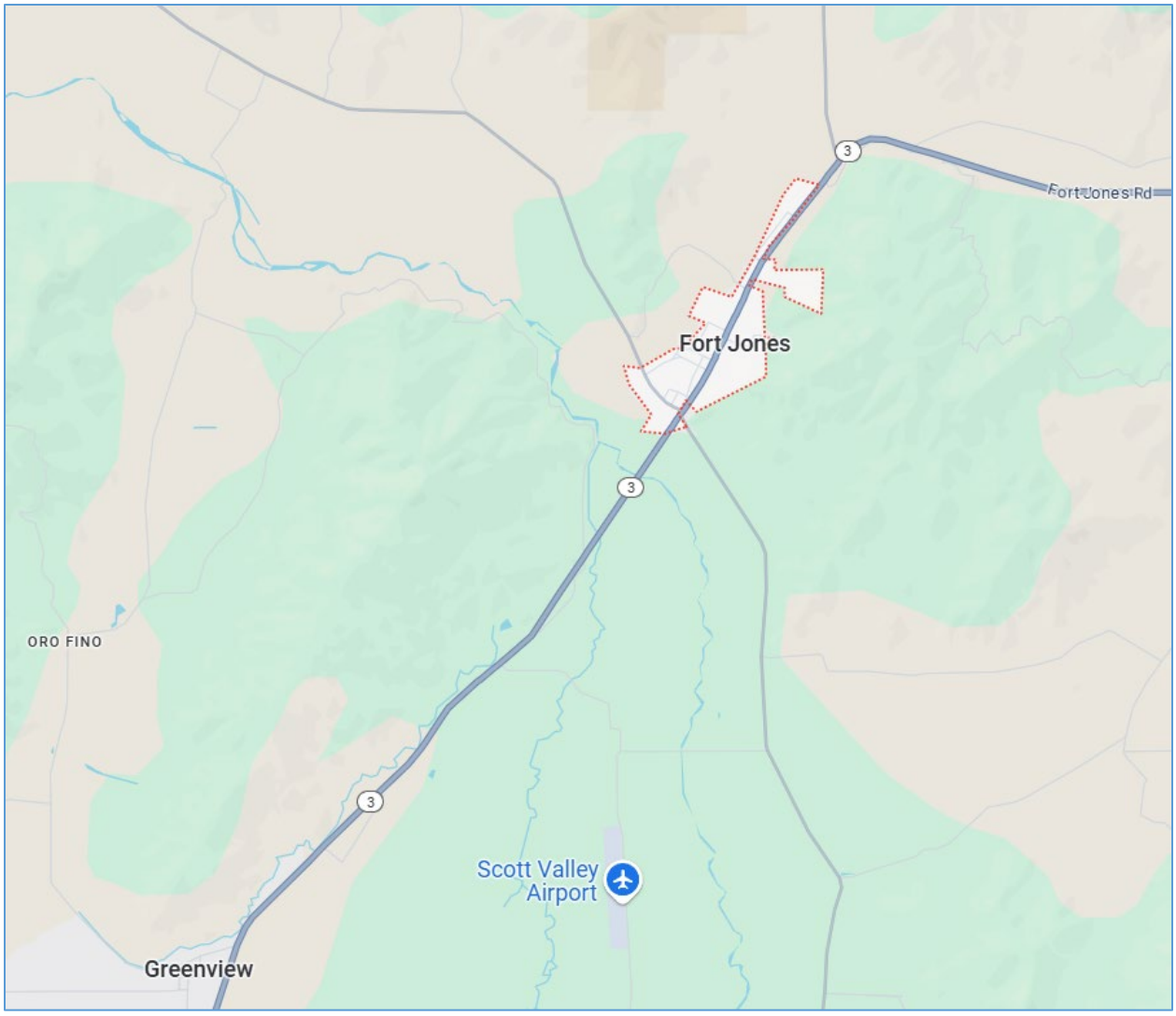
Evacuation Routes for Dunsmuir, CA.

The City of Dunsmuir (Population 1,642) is located on Interstate 5, near the County's southern border. The primary evacuation route out of the area is I-5, northbound to the City of Mount Shasta and southbound to the City of Redding and Shasta County. Schools, churches, and community centers in Mount Shasta could serve as safe locations for evacuees during a hazard event. Given Dunsmuir's proximity to Shasta County, it is likely that many evacuees will instead choose to transit south towards Redding, CA.



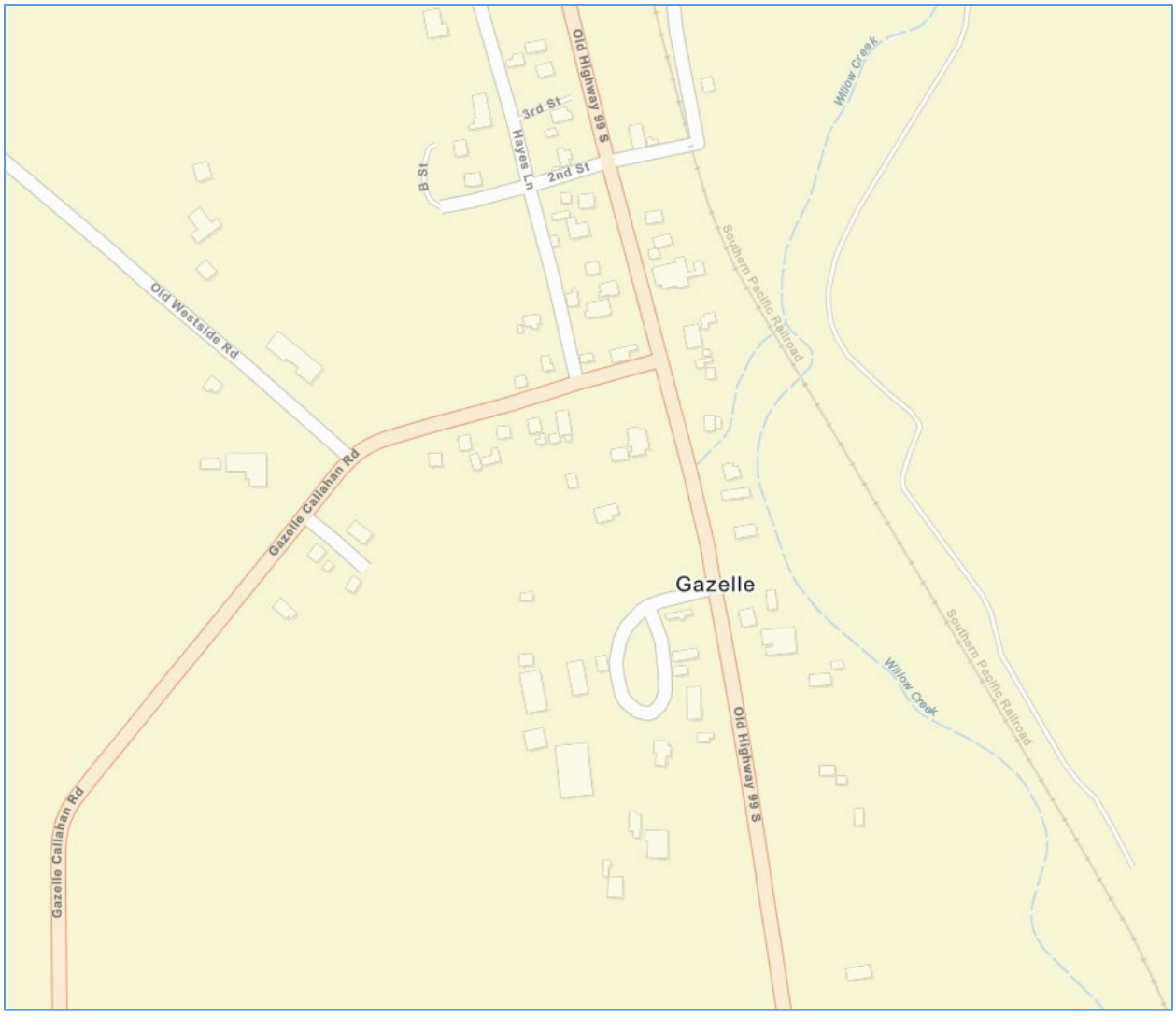
Evacuation Routes for Etna, CA.

The City of Etna (Population 653) is located on the west side of Scott Valley, 13 miles north of Callahan on Highway 3. The primary evacuation route is Highway 3, northbound to Fort Jones and Yreka, southbound towards the Community of Gazelle and the City of Weed. An alternative route, south on Sawyers Bar Road is available, which will take you over Etna Summit and towards the Communities of Sawyers Bar, Forks of Salmon and Somes Bar. Schools, churches, and community centers in Fort Jones could serve as safe locations for evacuees during a hazard event.



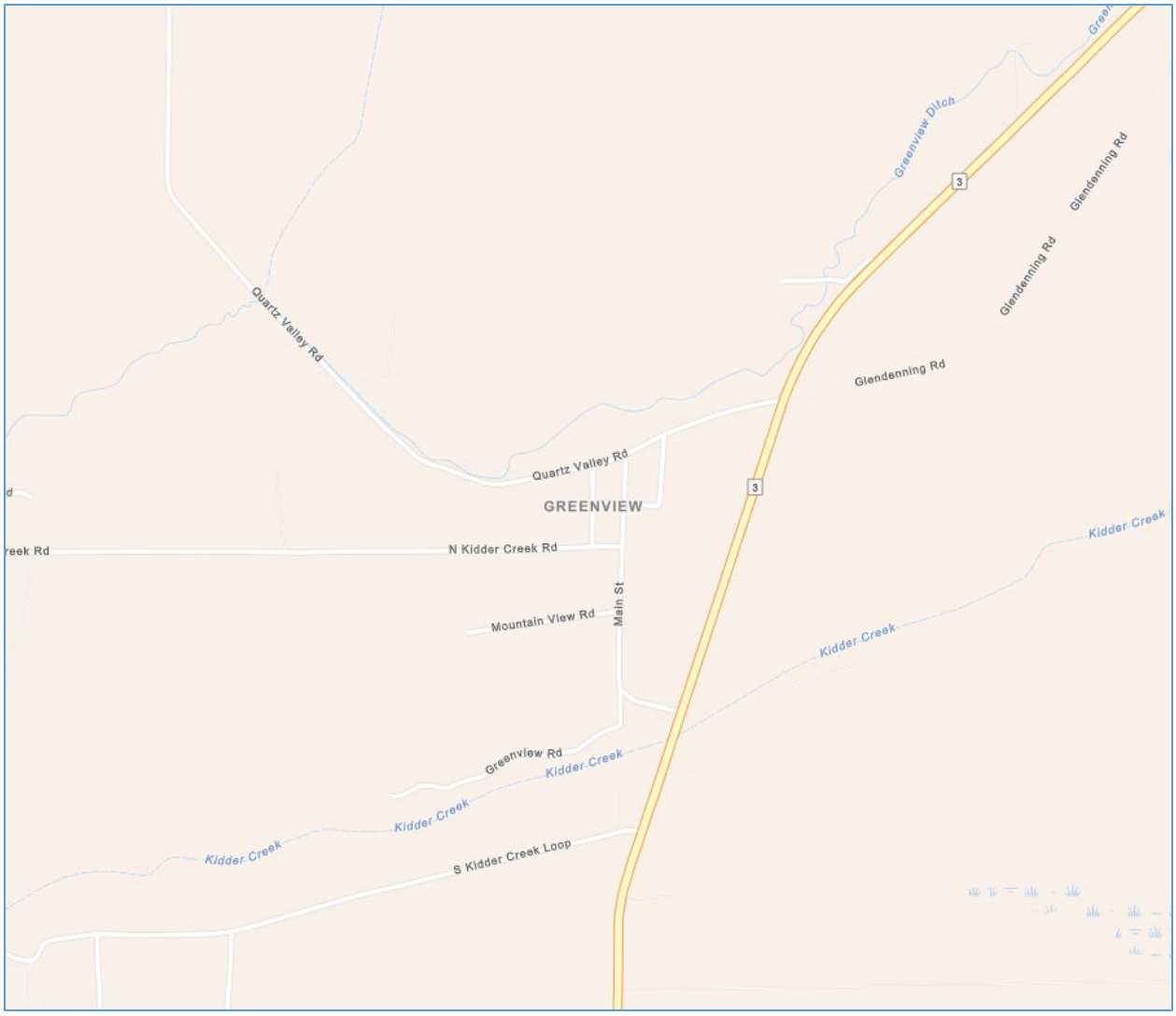
Evacuation Routes for Fort Jones, CA.

The City of Fort Jones (Population 673) is in Scott Valley, 12.5 miles north of Etna on Highway 3. The primary evacuation route out of Fort Jones is Highway 3, northbound to Yreka and southbound towards the City of Etna. Scott River Road and Eastside Road could also serve as evacuation routes. Schools, churches, and community centers in Yreka and Etna, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event.



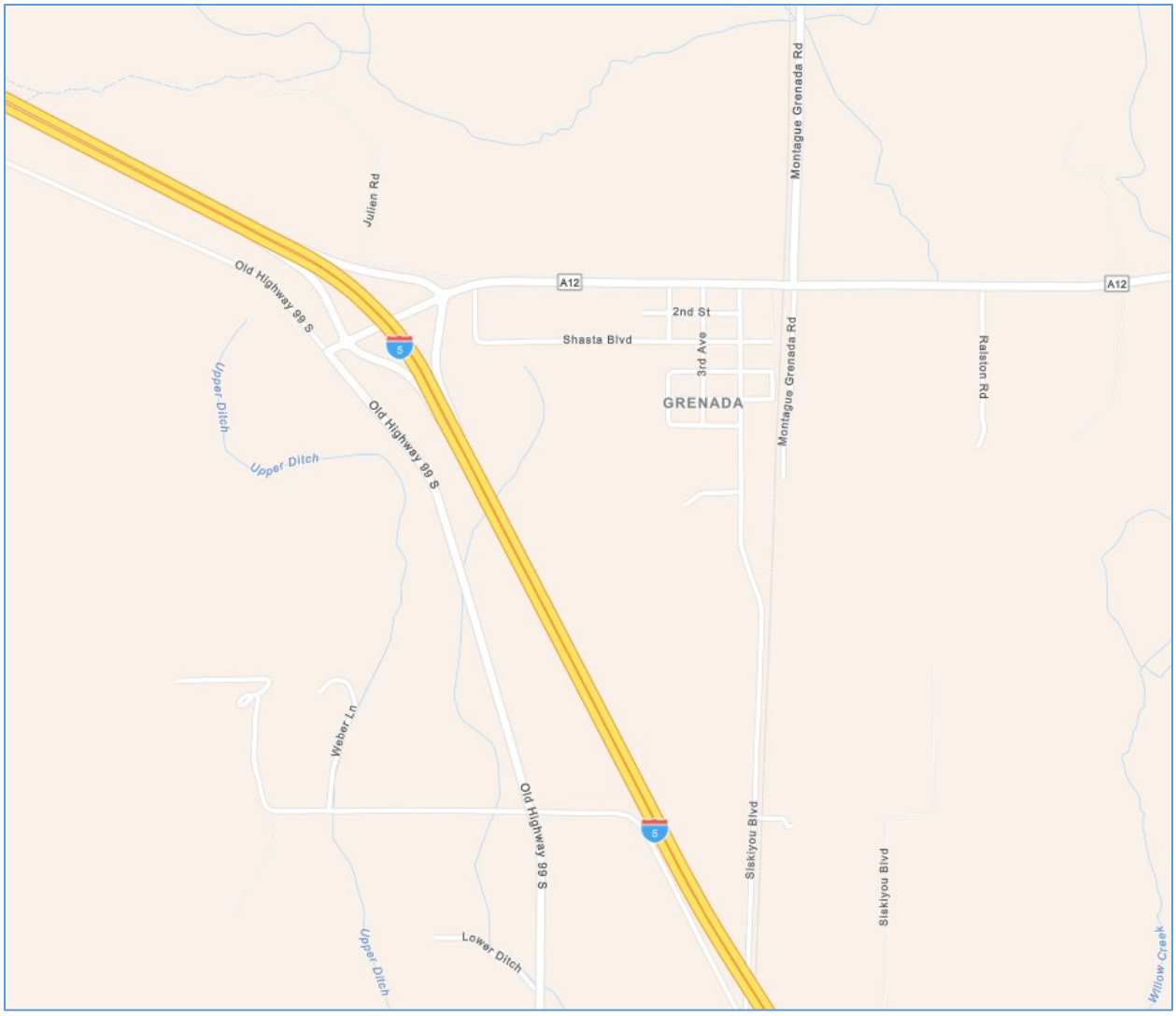
Evacuation Routes for Gazelle, CA.

The community of Gazelle (Population 120) is located west of Interstate 5 on Old Highway 99, between the Cities of Yreka and Weed. The main evacuation route is Old Highway 99, northbound to Yreka, southbound to Weed, or west along Gazelle-Callahan Road towards Callahan and the Scott Valley area. Schools, churches, and community centers in Yreka, Weed, and Montague, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event.



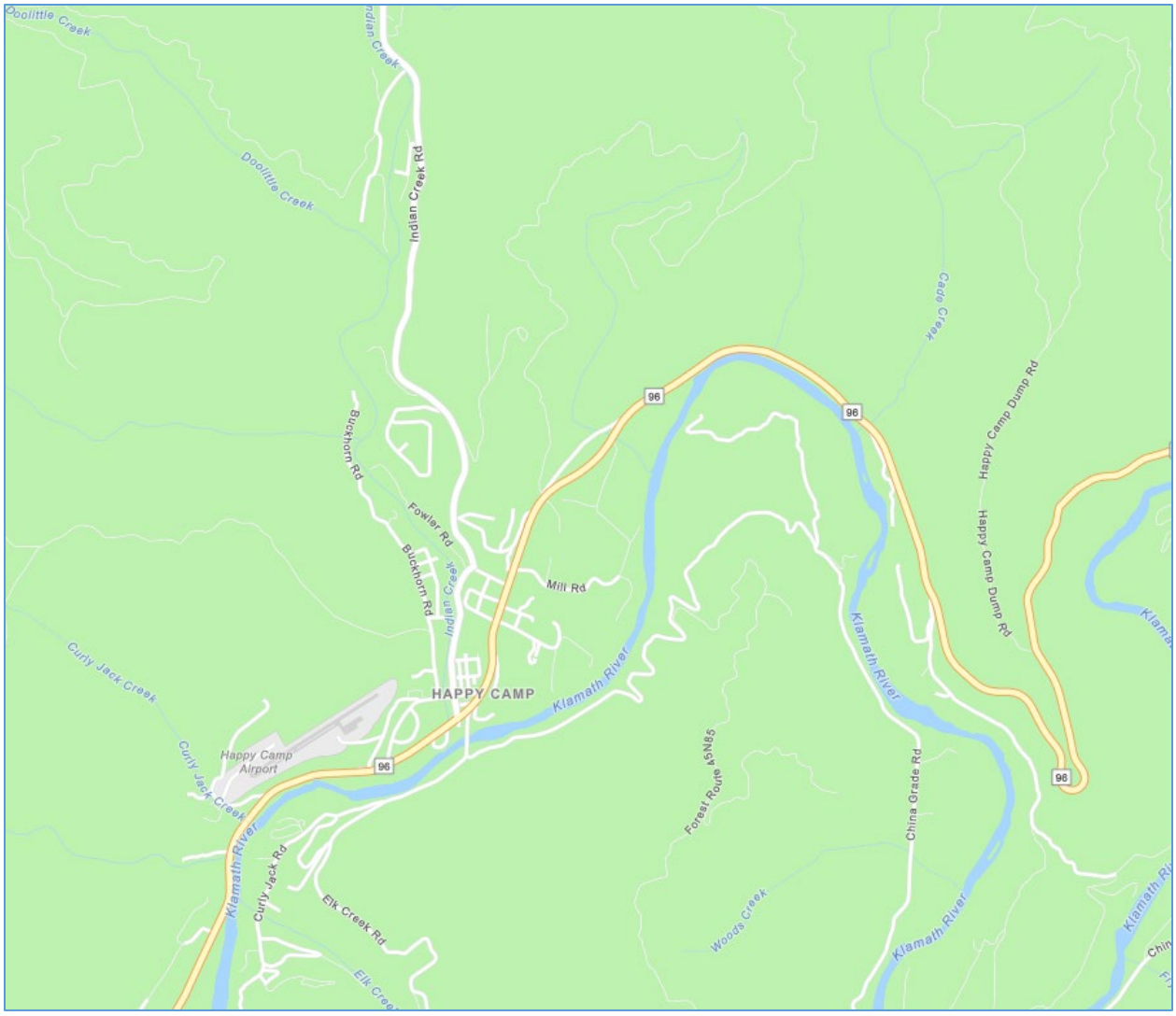
Evacuation Routes for Greenview, CA.

The community of Greenview (Population 208) is in Scott Valley, midway between Fort Jones and Etna on Highway 3. The main evacuation route for this area is Highway 3, northbound towards Fort Jones, and southbound towards Etna. Quartz Valley Road is an alternative route which will take you towards the *Quartz Valley Indian Reservation* and eventually to Scott River Road towards Fort Jones. Schools, churches, and community centers in Fort Jones and Etna could serve as safe locations for evacuees during a hazard event.



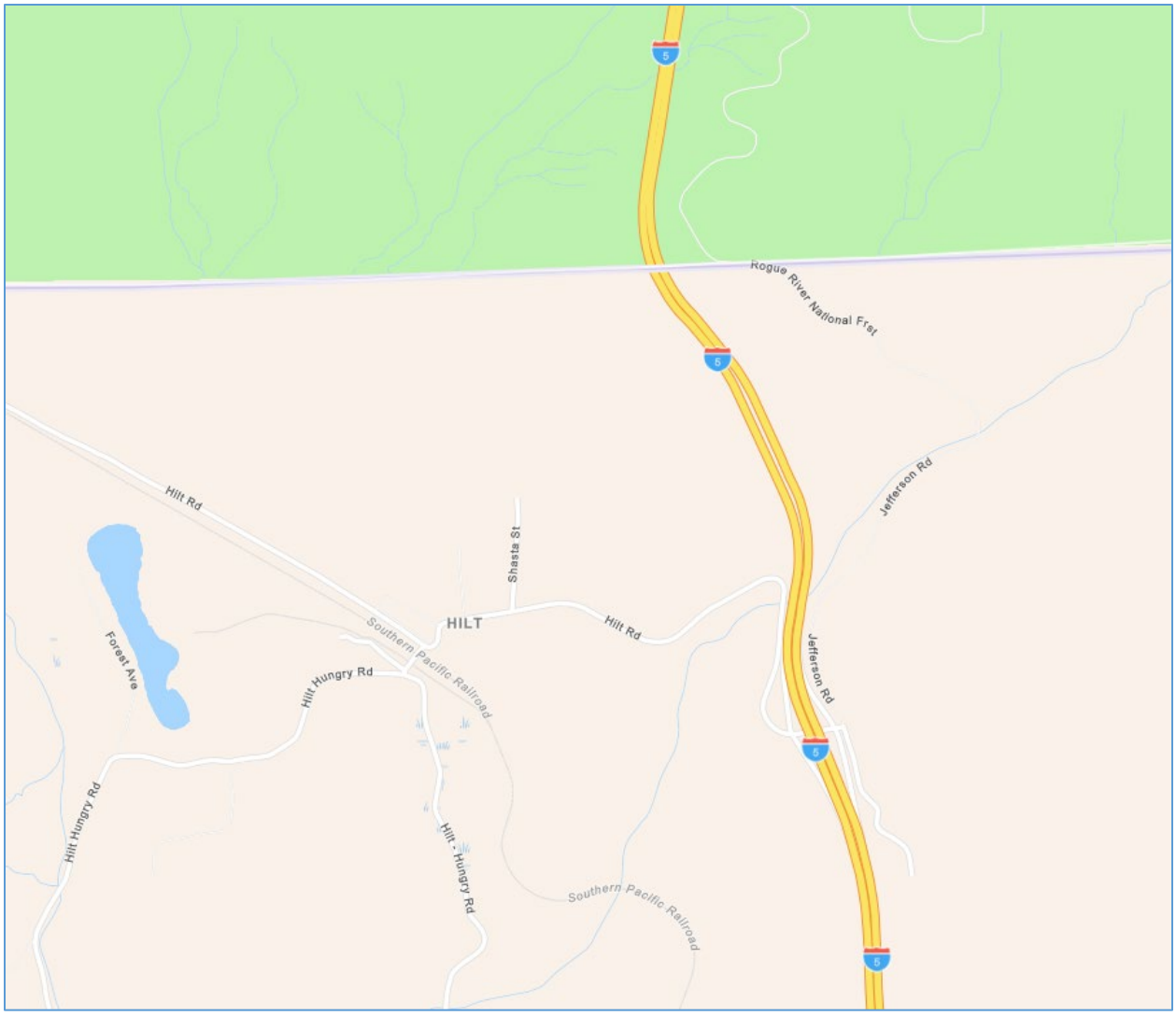
Evacuation Routes for Grenada, CA.

The community of Grenada (Population 314) is located along Interstate 5 and covers the land area between County Road A12, Montague Grenada Road, and Interstate 5. The primary evacuation route for this area is I-5, northbound to Yreka and southbound to Weed. County Road A12 and Montague Grenada Road are alternative routes in the even that I-5 is not accessible. Schools, churches, and community centers in Yreka, Weed, and Montague, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event.



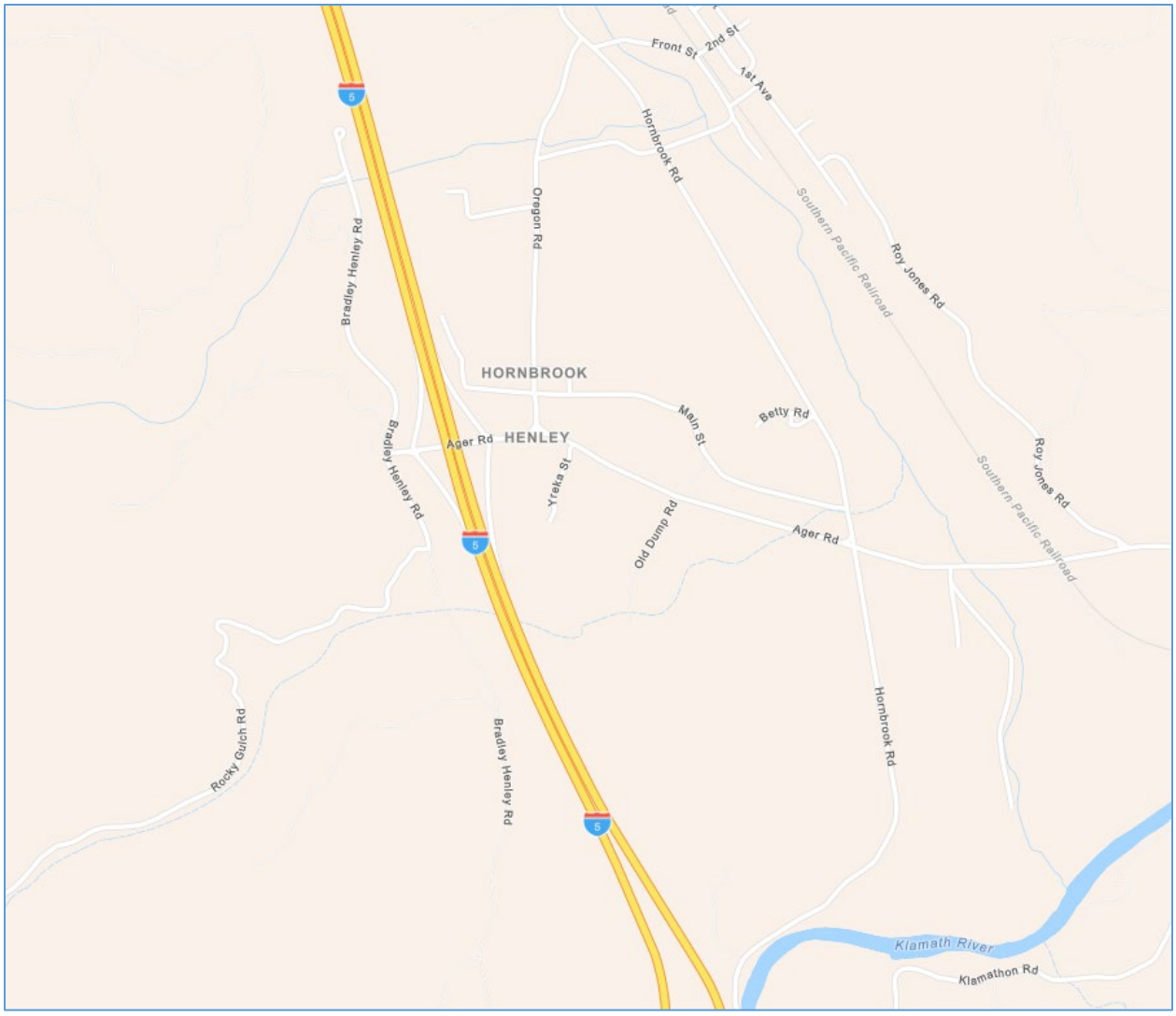
Evacuation Routes for Happy Camp, CA.

The community of Happy Camp (Population 907) is located on Highway 96, 70 miles west of Interstate 5. Primary evacuation routes are Highway 96, Elk Creek Road, Indian Creek Road, and Buckhorn Road. When Highway 96 is restricted, the only route out of the area is Indian Creek Road continuing to Grayback Road, up into Oregon. It is essential that Grayback Road remain open year round. This will require consistent plowing during the winter months. Schools, churches, and community centers in Yreka and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event.



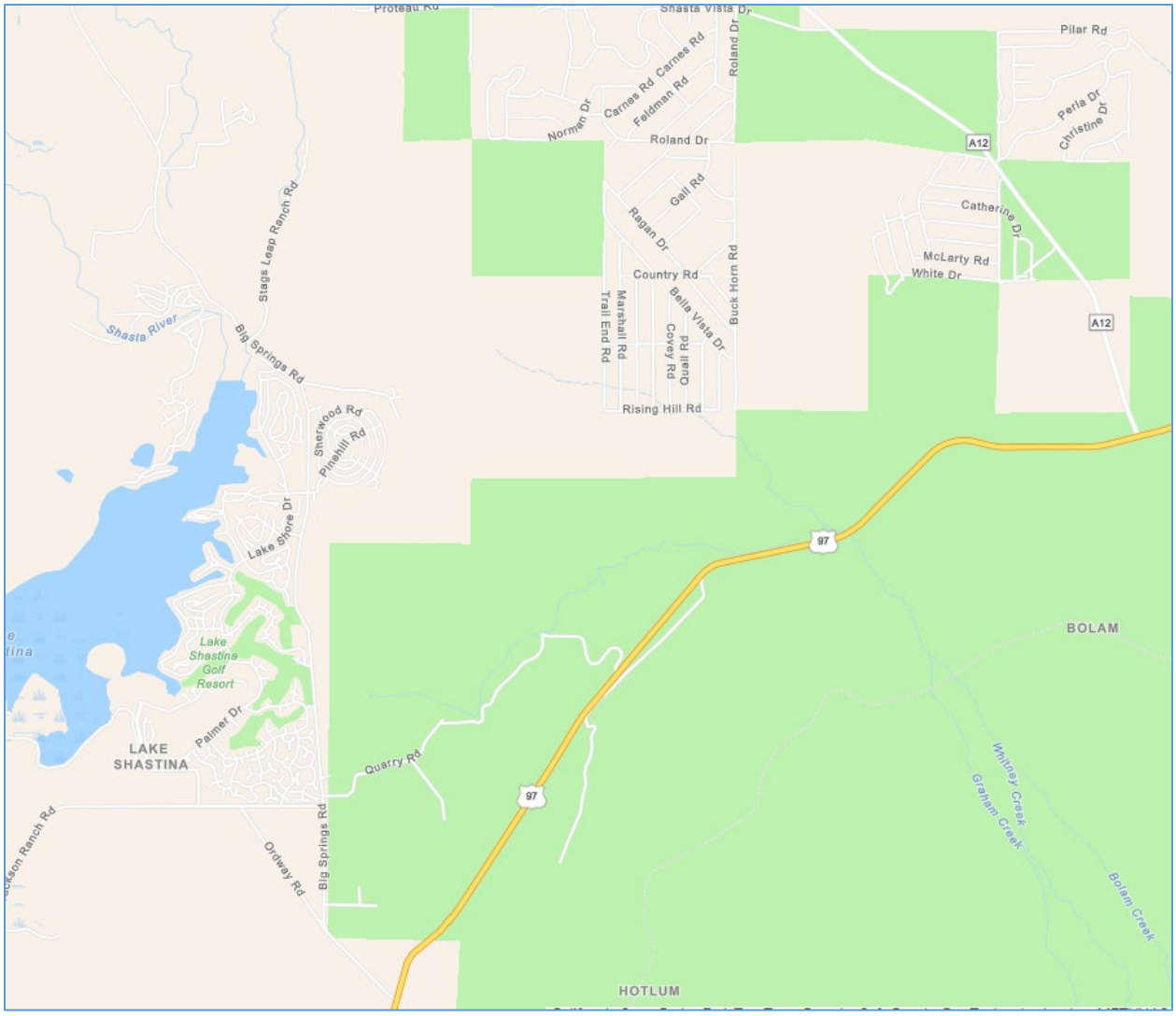
Evacuation Routes for Hilt, CA.

The community of Hilt (Population 9) is located west of Interstate 5, near the Oregon border. The sole evacuation route is Hilt Road to Interstate 5. Schools, churches, and community centers in Yreka and Montague, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event. Given Hilt's proximity to Oregon, it is possible that evacuees will instead choose to transit north towards Ashland, Or.



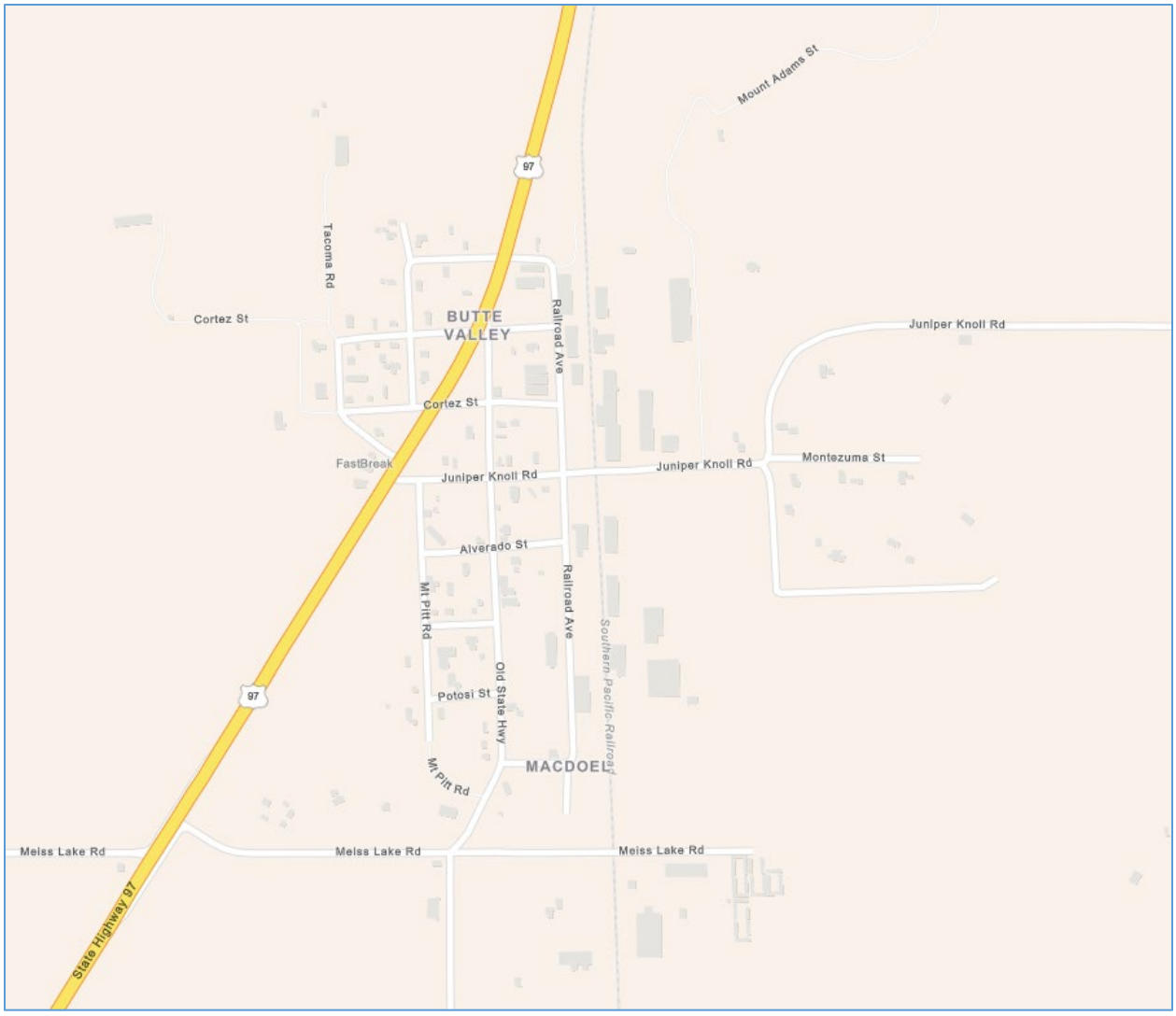
Evacuation Routes for Hornbrook, CA.

The community of Hornbrook (Population 381) is located east of Interstate 5, approximately 15 miles north of Yreka. The primary evacuation route is Ager Road out to Interstate 5. Schools, churches, and community centers in Yreka and Montague, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event. Given Hornbrook's proximity to Oregon, it is possible that evacuees will instead choose to transit north towards Ashland, Or.



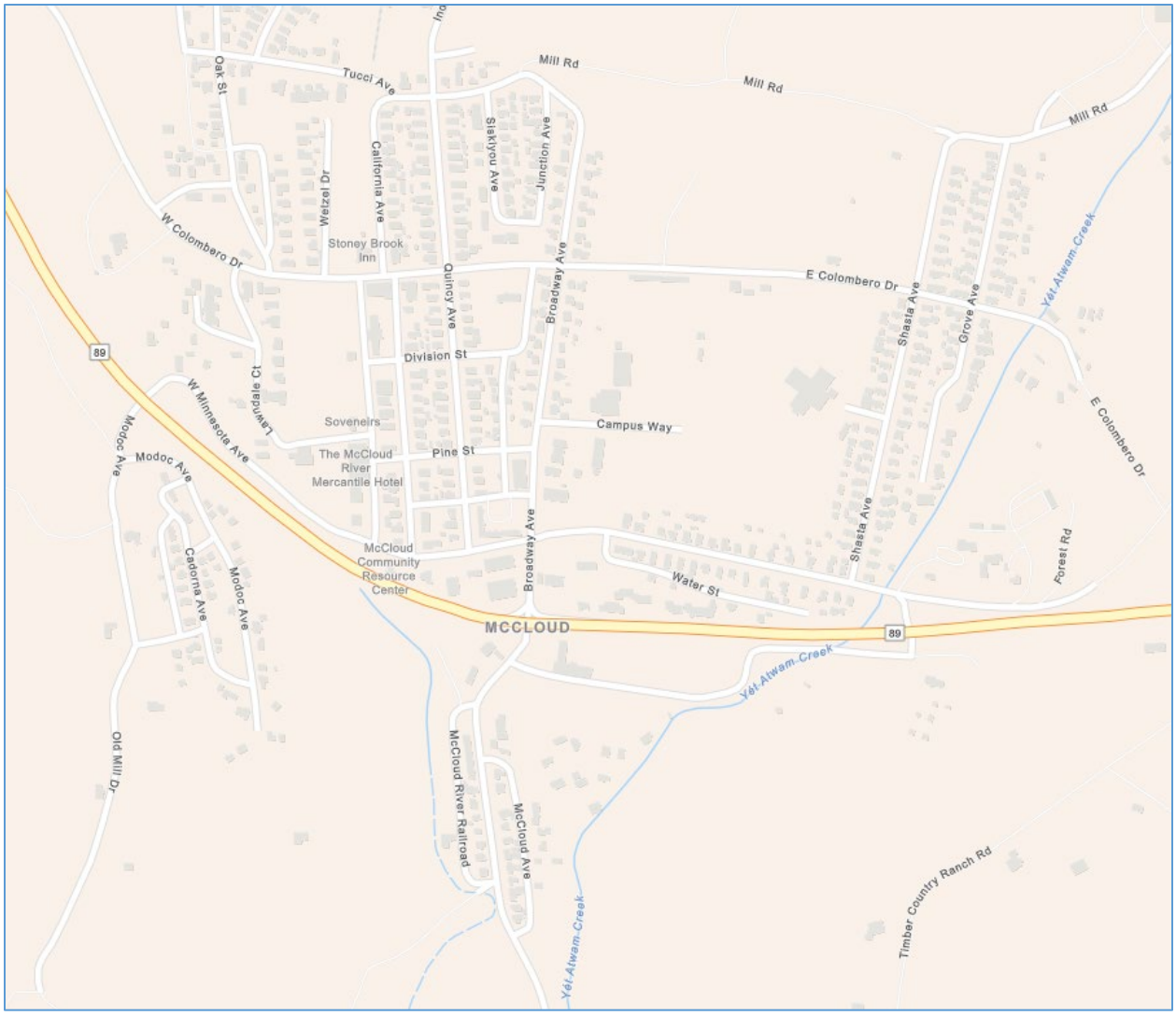
Evacuation Routes for Lake Shastina, CA.

The community of Lake Shastina (Population 3,008) is located north of Weed along Highway 97. The primary evacuation routes are Jackson Ranch Road westbound to Interstate 5 and Big Springs Road southbound to Highway 97. County Road A12 is also available, northbound to Grenada, and southbound to Highway 97. Schools, churches, and community centers in Yreka, Montague, and Weed, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event.



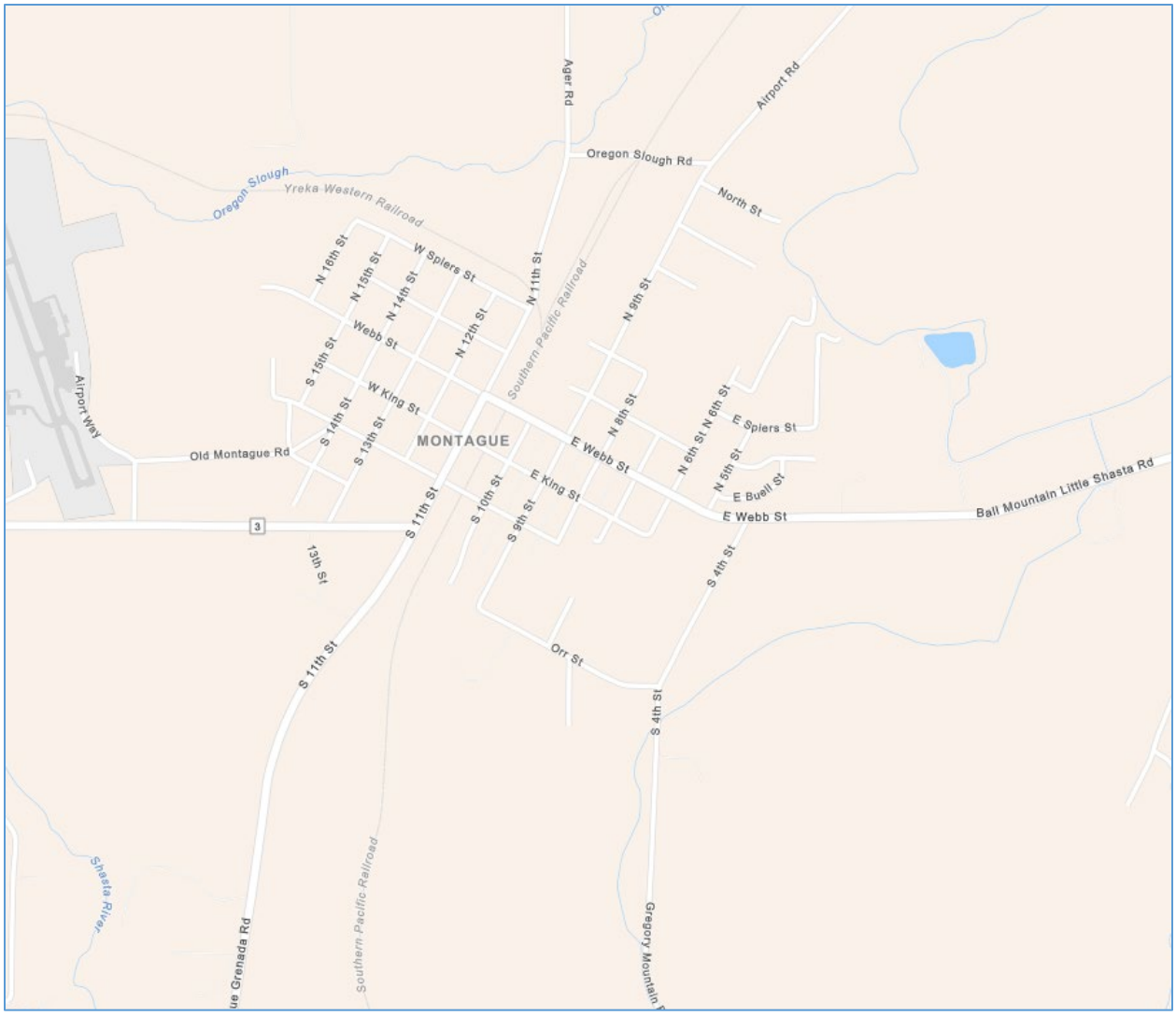
Evacuation Routes for Macdoel, CA.

The community of Macdoel (population 143) is located on Highway 97, approximately 40 miles north of Weed, CA. The primary evacuation route is Highway 97 north to Dorris and Klamath Falls and south to Weed, CA. Collector roads such as Meiss Lake Road and Juniper Knoll Road are alternate routes in the event that Highway 97 is inaccessible. Schools, churches, and community centers in Yreka, and the Siskiyou County Fairgrounds, could serve as safe locations for evacuees during a hazard event. Given Macdoel's proximity to Oregon, it is possible that evacuees will instead choose to transit north towards Klamath Falls, Or.



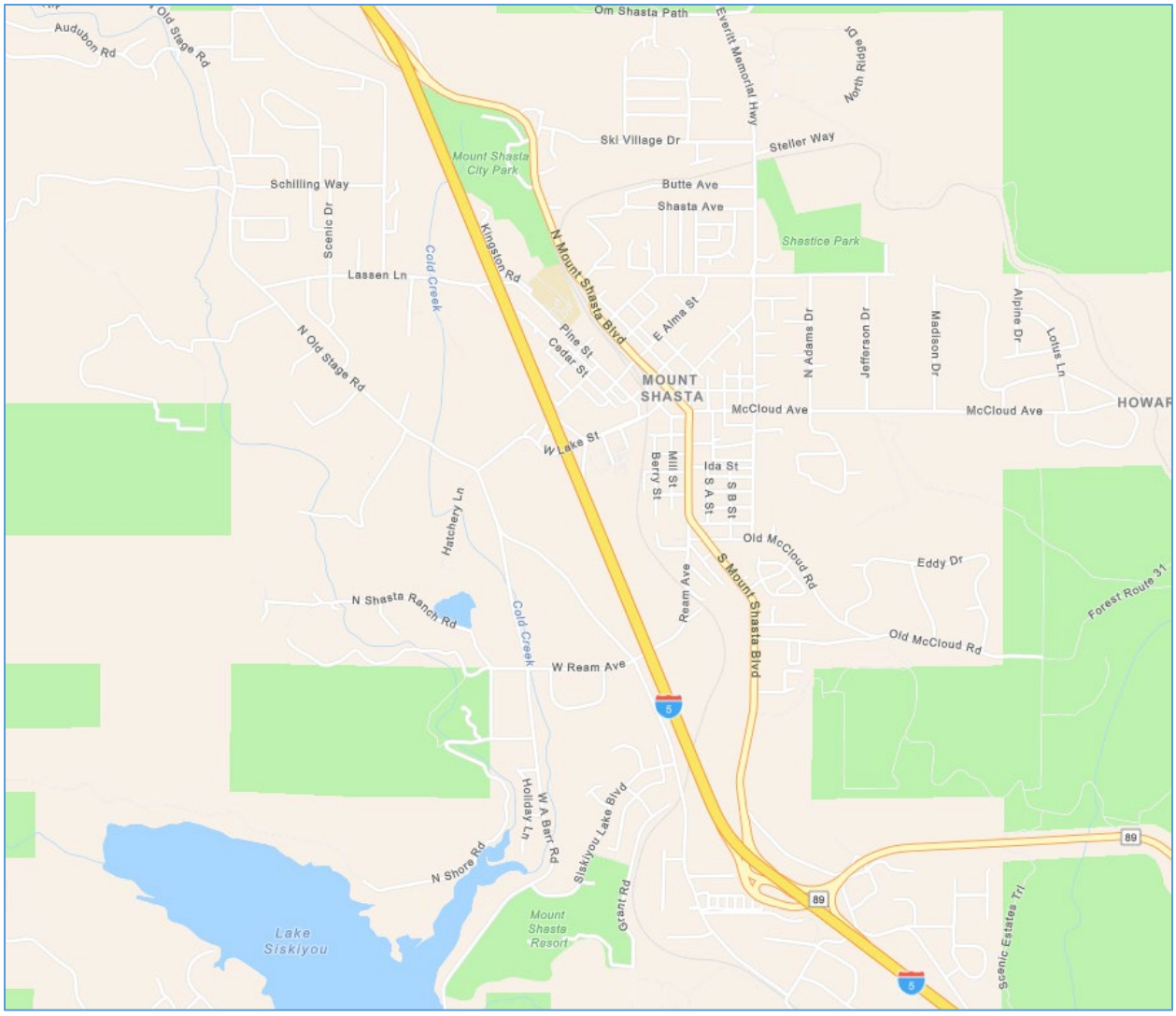
Evacuation Routes for McCloud, CA.

The community of McCloud (population 959) is located east of Interstate 5, along Highway 89, 13 miles east of Mount Shasta. The primary evacuation route is Highway 89, westbound to the City of Mount Shasta and eastbound towards Shasta County. Schools, churches, and community centers in Mount Shasta, Weed, and Dunsmuir, could serve as safe locations for evacuees during a hazard event. Evacuees may likely also choose instead to transit into neighboring Modoc and Shasta Counties.



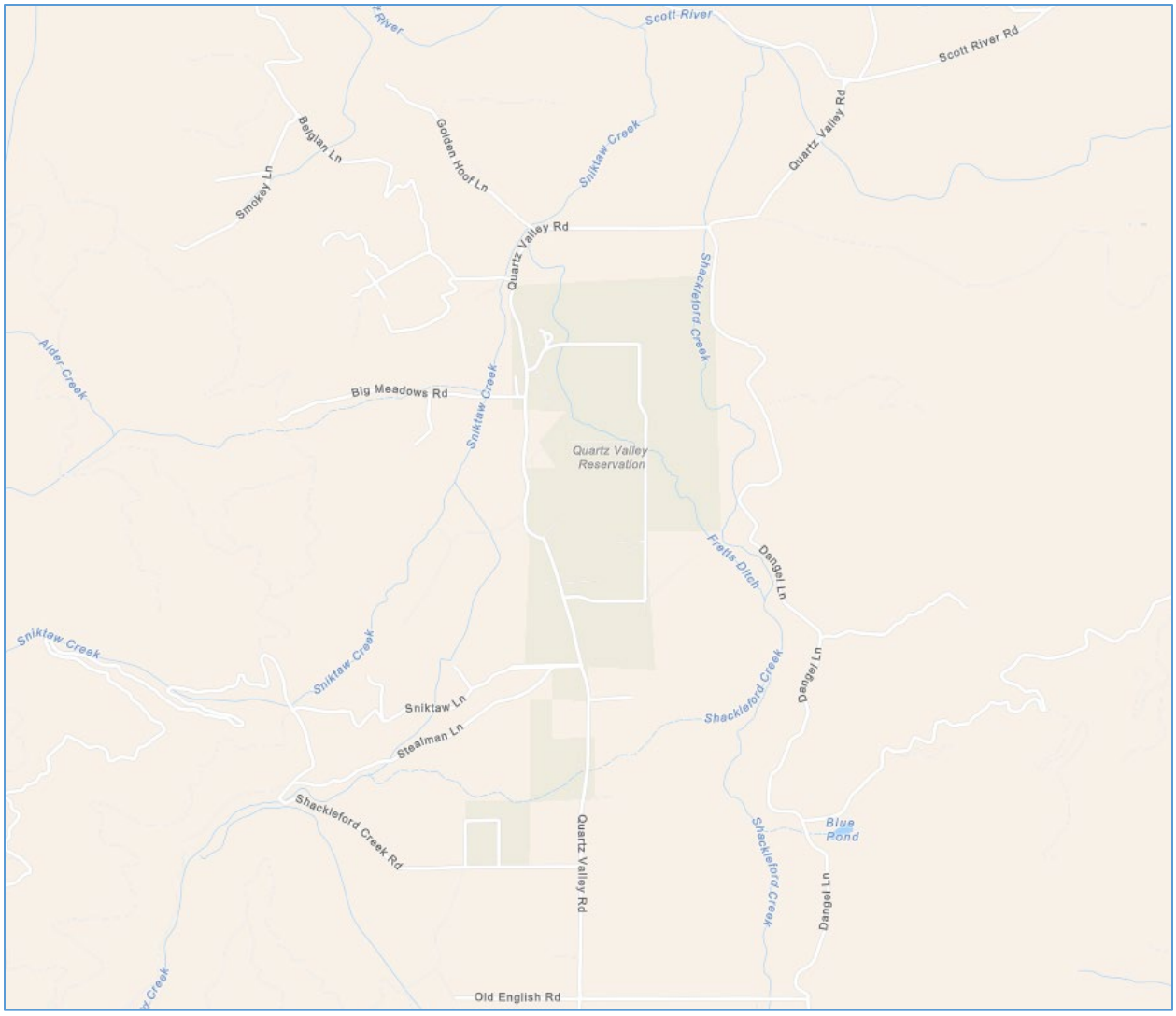
Evacuation Routes for Montague, CA.

The City of Montague (population 1,182) is located east of Interstate 5, six miles east of Yreka on Highway 3, also referred to as Montague Road. The primary evacuation routes are Highway 3 westbound to Interstate 5, Montague Ager Road heading north, Ball Mountain Little Shasta Road heading east, and Montague Grenada Road heading south. Schools, churches, and community centers in Yreka, and the Siskiyou County Fairgrounds, could serve as safe locations for evacuees during a hazard event.



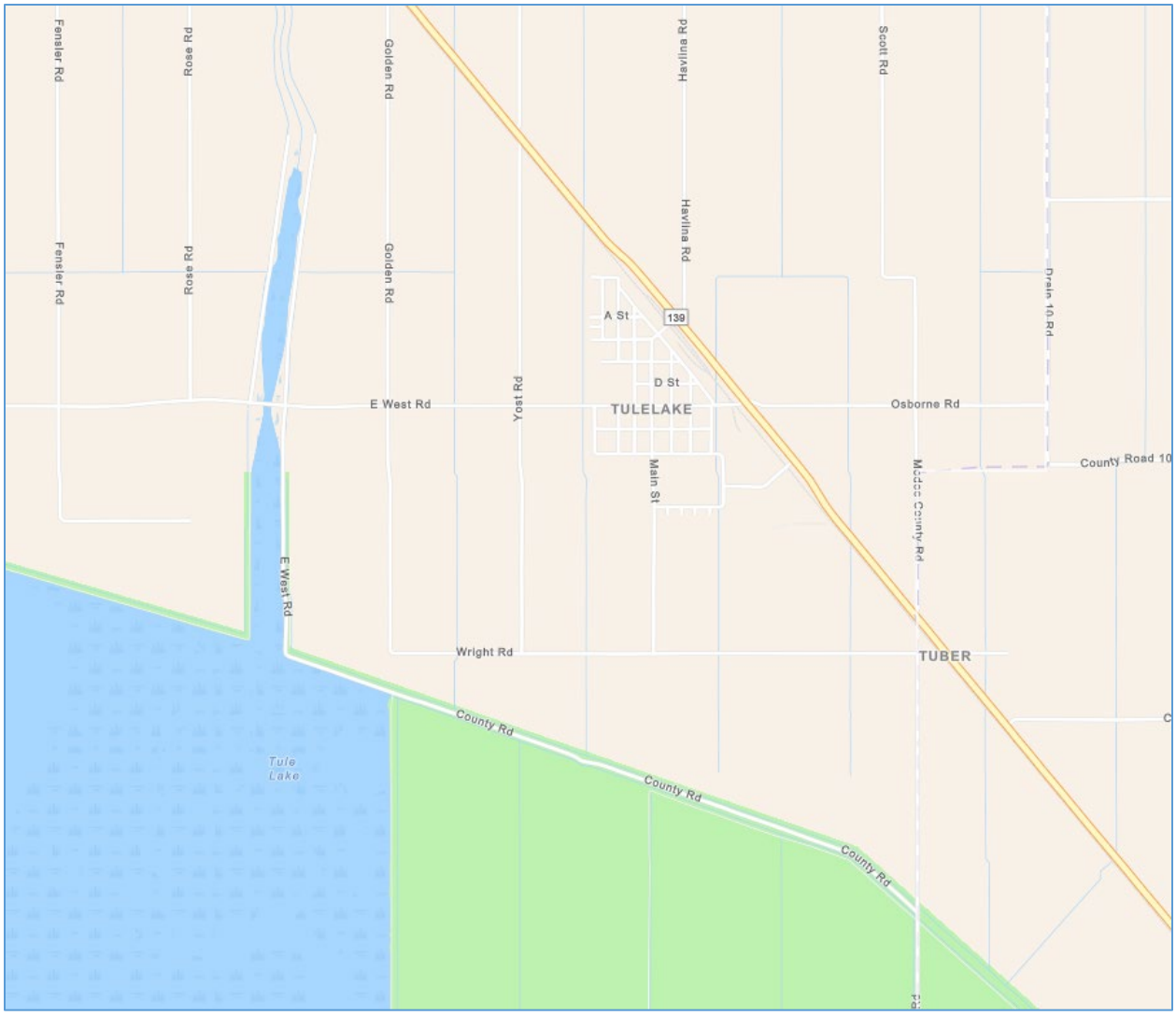
Evacuation Routes for Mount Shasta, CA.

The City of Mount Shasta (population 3,179) is located 8 miles north of Dunsmuir along Interstate 5. The primary evacuation route is Interstate 5, north to the City of Weed and south to the City of Dunsmuir. Highway 89 towards McCloud is also possible. The major collector roads for this area are North Mount Shasta Boulevard and South Mount Shasta Boulevard, which both lead to Interstate 5. Schools, churches, and community centers in Weed, Dunsmuir, and McCloud could serve as safe locations for evacuees during a hazard event.



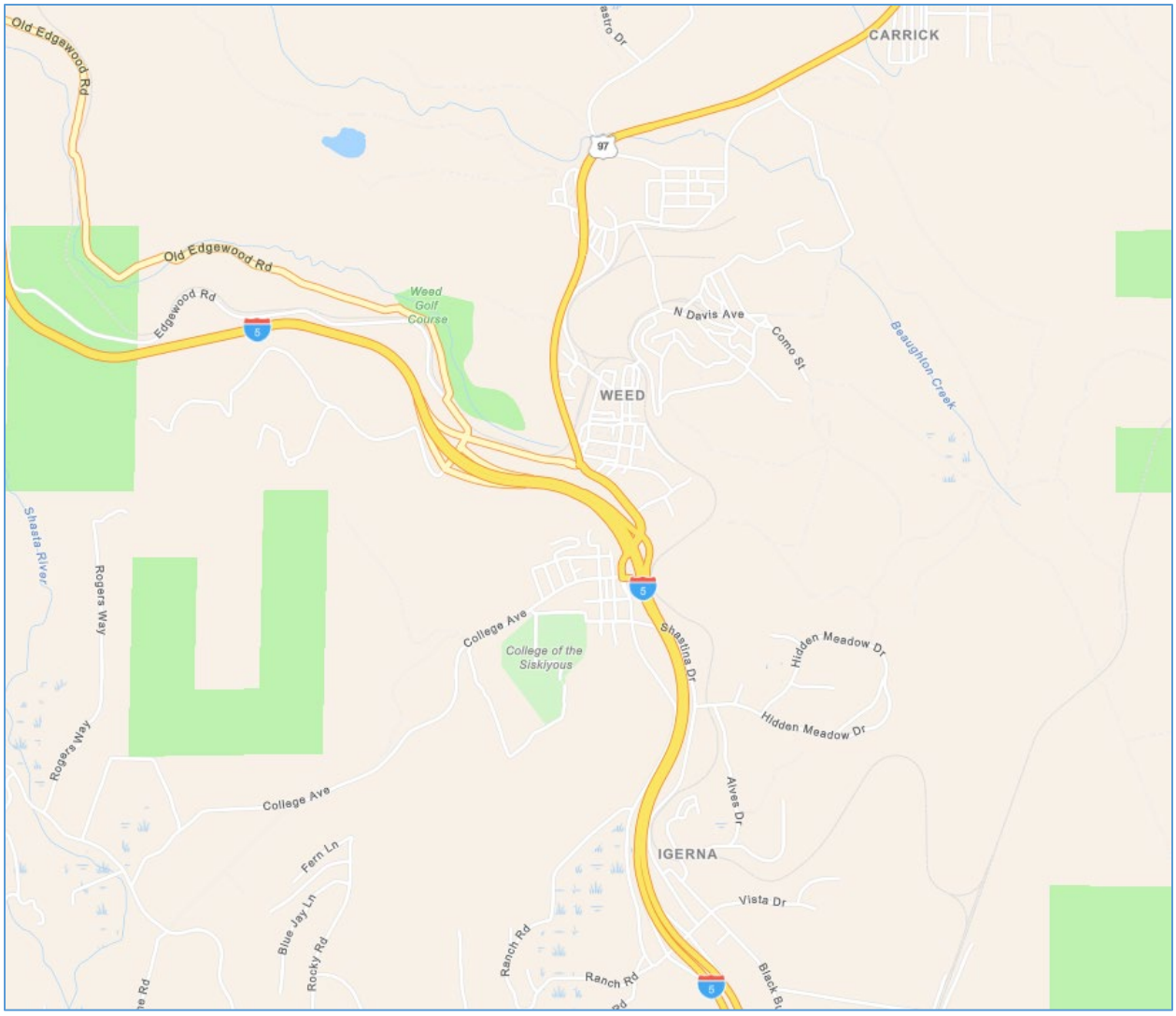
Evacuation Routes for Quartz Valley, CA.

The community of Quartz Valley (population 202) is located northwest of Greenview along Quartz Valley Road. Primary evacuation routes for this area are Quartz Valley Road towards Highway 3 and Quartz Valley Road towards Scott River Road and Fort Jones. Schools, churches, and community centers in Fort Jones, Etna, and possibly Happy Camp could serve as safe locations for evacuees during a hazard event.



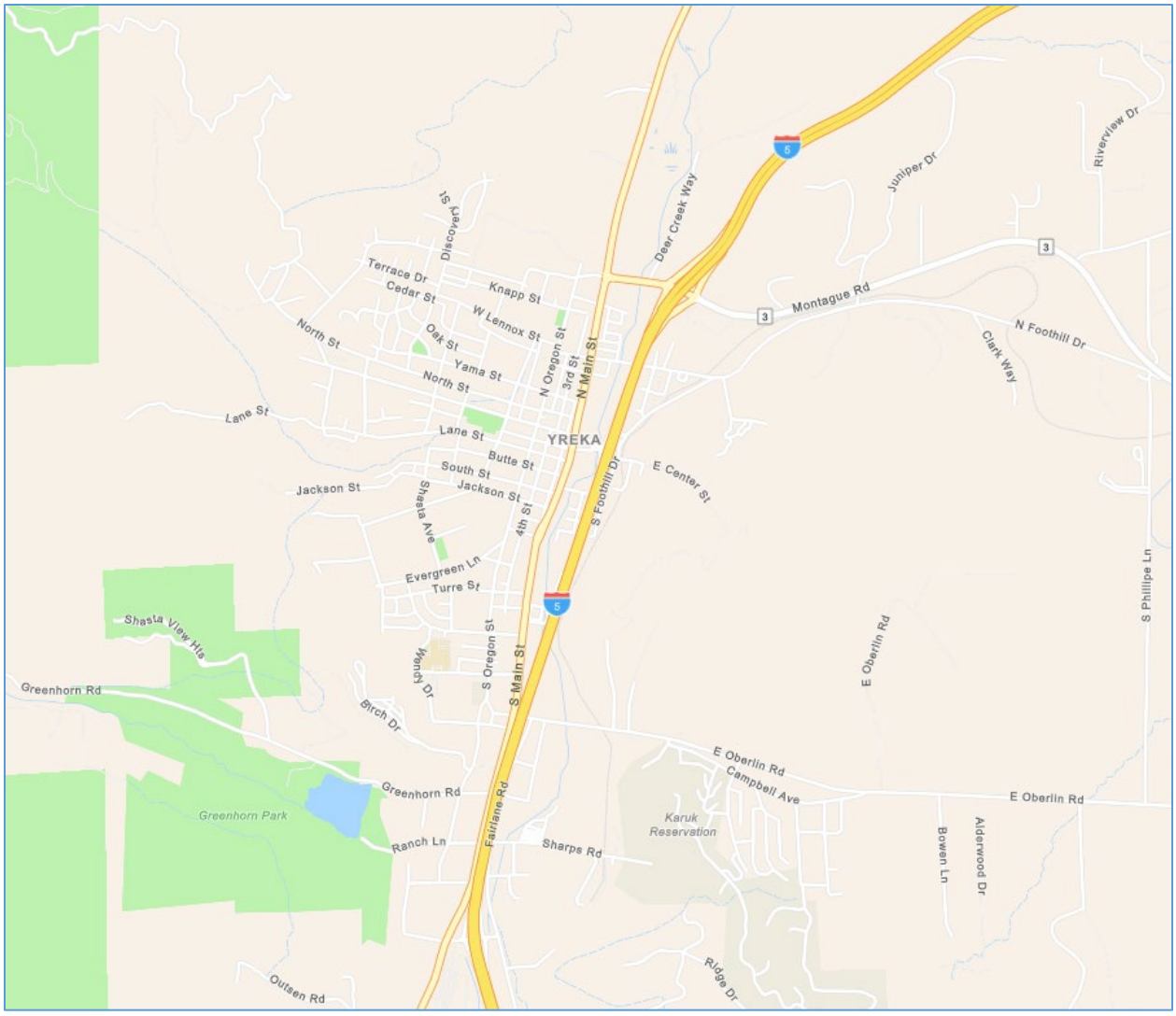
Evacuation Routes for Tulelake, CA.

The City of Tulelake (population 867) is located in the northeast corner of Siskiyou County along Highway 139, near the Oregon border. The primary evacuation route is Highway 139 north towards the state of Oregon and south towards Modoc County. Schools, churches, and community centers in Yreka and Dorris, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event. Given Tulelake's proximity to Oregon, it is possible that evacuees will instead choose to transit north towards Klamath Falls, Or.



Evacuation Routes for Weed, CA.

The City of Weed (population 2,574) is located at the interchange of Interstate 5 and Highway 97, 10 miles north of Mount Shasta, CA. The primary evacuation routes are Highway 97 and Interstate 5. Schools, churches, and community centers in Yreka, Montague, Lake Shastina, Mount Shasta, and Dunsmuir, and the Siskiyou County Fairgrounds in Yreka, could serve as safe locations for evacuees during a hazard event.



Evacuation Routes for Yreka, CA.

The City of Yreka (population 7,808) is located on Interstate 5, , approximately 22 miles south of the Oregon Border. The Primary evacuation route is Interstate 5. Alternative routes are North and South Main Street, running north and south through the city. East Oberlin Road and Montague Road (Highway 3) running eastbound. Greenhorn Road heading west and southbound on Highway 3 towards Fort Jones. Given Yreka's proximity to Oregon, it is possible that evacuees will transit north towards Ashland, Oregon, or south on I-5 towards Lake Shastina, Weed, Mount Shasta, and Dunsmuir.

Chapter 9
Goals, Policies, and Actions

Fire Hazard

GOAL #1	PROTECTION FROM FIRE DANGER.

Policy 1.1 **Structure Fires.** Continue, enhance, or implement programs that seek to reduce the risk of structure fires.

Policy 1.2 **Vegetation and Rural Forest Management.** Manage vegetation to reduce combustible load and erosion. Continue to require building owners in high risk areas to maintain defensible space and implement fire prevention measures. Build partnerships with and consult indigenous groups on sacred burning and other traditional fire suppression techniques.

Policy 1.3 **Water Infrastructure.** Work with local agencies to plan for the ongoing maintenance and long-term integrity of planned and existing firefighting water supply infrastructure, including peak load water supply.

Policy 1.4 **Fire Hazard Severity Zone (FHSZ) Development.**
Prioritize development in areas with existing adequate road networks, evacuation routes, and water infrastructure. Require new development in the Very High Fire Hazard Severity Zone (VHFHSZ) to prepare a Fire Protection Plan that minimizes risks by:

- Assessing site specific characteristics such as topography, slope, vegetation type, and wind patterns, as part of risk analysis.

- Determination of fire response capability, including the assistance of local fire protection agencies, and availability of local resources.

- Locating and designing development to avoid high fire risk areas where feasible.

- Incorporating fuel modification and brush clearance techniques in accordance with applicable fire safety requirements and carried out in a manner which reduces impacts to the environment.

- Using fire resistant building materials and design features, such as visible signage, consistent with the most recent California Fire Code and Building Code as adopted and amended.

- Using fire resistant native plant species in landscaping.

- Complying with established standards and specifications for fuel modification, visible home and street addressing and signage, defensible space, access and egress, and water facilities.

- Requiring street improvements to comply with minimum fire road access standards.

- Disallowing new residential development in areas with less than two evacuation routes, unless a development is to be able to provide additional connections to ameliorate this condition.

Policy 1.5 **Financial Assistance.**
Identify or develop programs to provide financial incentives or assistance to low income households without vehicles and mobility impaired residents for defensible space maintenance, home hardening, and situation specific training for evacuation procedures to reduce risk to people and property.

Policy 1.6 **Agency Coordination.**
Participate in general mutual aid agreements and also in agreements with adjoining jurisdictions and other public agencies for proactive prevention of and cooperative response to wildfires, including multi-jurisdictional programs and task forces.

Policy 1.7 **Protect Against Smoke and Wildfire.**
Improve access to better indoor air quality to protect against smoke and wildfire by recommending installation of minimum efficiency reporting value (MERV) air filters in new developments and identifying additional clean air centers and resiliency spaces in

populated areas. Explore funding opportunities to assist residents in purchasing indoor air filters.

Policy 1.8 **New Residential Development in VHFHSZs.** Develop and implement practical goals and policies to avoid or minimize new residential developments in VHFHSZs per CAL FIRE requirements.

Policy 1.9 **Fire Safe Design for Future Developments.** Require that fire safe design is incorporated into future development per CAL FIRE requirements.

Policy 1.10 **Location of Essential Public Facilities.** Require that new essential public facilities be located outside high fire risk areas, such as VHFHSZs, when feasible.

Flood Hazard

GOAL #2	MINIMIZE HEALTH AND SAFETY IMPACTS RELATED TO FLOODING.

Policy 2.1 **Minimize Storm Induced Flooding.** Continue or strengthen county programs that seek to minimize storm induced flooding.

Policy 2.2 **Compliance with the National Flood Insurance Program.** Staff shall ensure compliance with the National Flood Insurance Program (NFIP).

Policy 2.3 **Flood Control Coordination.** Coordinate with FEMA, the Regional Water Quality Control Board (RWQCB), and the State Division of Safety of Dams (SDOD) on flood control related projects.

Geologic & Seismic Hazards

GOAL #3	PROTECT LIFE AND PROPERTY FROM THE DANGERS OF GEOLOGIC & SEISMIC HAZARDS.

Policy 3.1 **Seismic Hazards.** Develop and continue to enforce regulations and programs to reduce geologic and seismic hazard vulnerability.

Policy 3.2 **Development in Hazardous Areas and Minimizing Erosion.** Minimize threat to structures and humans by limiting development in areas subject to landslides or other geologic threat and undertake efforts to limit erosion from new development.

Hazardous Materials

GOAL #4	MINIMIZE IMPACTS RELATED TO THE USE, STORAGE, MANUFACTURE, AND TRANSPORT OF HAZARDOUS MATERIALS.

Policy 4.1 **Risks from Hazardous Materials Facilities.** Review proposed facilities that would produce or store hazardous materials, gas, natural gas, or other fuels, to identify and require feasible mitigation for any significant risks.

Policy 4.2 **Hazardous Materials.** Through partnerships, programs, and regulations, minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage and disposal of hazardous materials.

Policy 4.3 **Hazardous Materials Accidents.** Seek to prevent industrial and transportation accidents involving hazardous materials and enhance the county's capacity to respond to such incidents.

Policy 4.4 **Site Contamination.** Through enforcement of standard conditions of approval, ensure buildings and sites are or have been investigated for the presence of hazardous materials/waste contamination prior to development or if there is reason to believe an existing building or site may contain hazardous materials that pose a threat to possible users.

Policy 4.5 **Funding Opportunities.** Seek grant funding opportunities for hazardous material remediation and cleanup.

Adaptation & Community Resilience

GOAL #5	PREPARE FOR THE EFFECTS OF RISING AVERAGE TEMPERATURES AND EXTREME WEATHER THROUGH IMPLEMENTATION OF ADAPTATION AND RESILIENCY STRATEGIES.

Policy 5.1 **Public Health Emergency Preparedness.** Develop, implement, and maintain protocols for county specific adaptation and community resilience strategies.

Policy 5.2 **Ensuring Equal Access to County Services.** Develop and maintain protocols to ensure that the needs of vulnerable populations are considered in the hazard mitigation process.

Emergency Management

GOAL #6	MAINTAIN AN EMERGENCY PREPAREDNESS AND RESPONSE SYSTEM THAT KEEPS EVERYONE INFORMED, CONNECTED, AND SAFE, BEFORE, DURING, AND AFTER AN EMERGENCY.

Policy 6.1 **Emergency Response.** Maintain and enhance the county's capacity for emergency response, fire prevention, and firefighting.

Policy 6.2 **Cohesive Evacuation Routes Network.** Ensure the evacuation routes network is interconnected with adequate capacity and reflects ability to evacuate for multiple threat conditions. Ensure tree and vegetation maintenance along evacuation routes and remove flammable trees adjacent to these routes.

Policy 6.3 **Public Facilities for Resilience & Relief.** Maintain public facilities such as fire stations, libraries, senior centers, parks, the county fairgrounds, and recreation centers to ensure that they can function as essential service facilities and as resiliency hubs to provide emergency social and medical services in times of distress (cooling and clean air stations, food distribution, clean water, testing centers, evacuation shelters, etc.).

Policy 6.4 **Critical Facilities Locations.** Locate critical facilities, such as hospitals and health care facilities, emergency shelters, fire stations, police stations, emergency command centers, and other emergency service facilities and utilities so as to minimize exposure to flooding, seismic, geologic, wildfire, and other hazards, except for

those facilities that provide frontline access, such as fire stations in fire hazard areas.

Policy 6.5 **Local Hazard Mitigation Plan.** To comply with federal and state law, follow and update the Local Hazard Mitigation Plan as required. Incorporate the LHMP into the Safety Element to comply with Assembly Bill 2140 (2006).

Policy 6.6 **Heat Pumps.** Equip community serving facilities with heat pumps instead of energy intensive air conditioning units. Prioritize community serving facilities in neighborhoods with a high urban heat island index and higher social vulnerability.

Policy 6.7 **Emergency Notification.** Use early warning notification systems (text messages, telephone calls, etc.) to notify residents by wireless emergency alert of the need to evacuate in the event of an emergency and the location of evacuation routes, points, and critical facilities such as schools and day care centers, particularly residents of vulnerable areas and neighborhoods with constrained emergency access.

Evacuation Planning

GOAL #7	IDENTIFY RESIDENTIAL DEVELOPMENTS WITHOUT AT LEAST TWO EVACUATION ROUTES.

Policy 7.1 **Evacuation Routes.** Identity residential developments without at least two emergency evacuation routes and require mitigation, where feasible, to include road maintenance and defensible space clearing.

County of Siskiyou

General Plan 2025 Safety Element

Authors and Contributors

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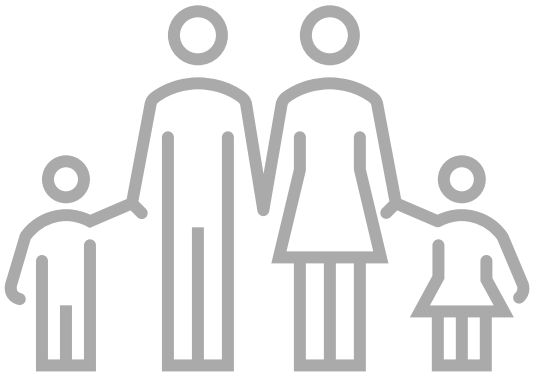
Department of Conservation, California Geological Survey

California State Board of Forestry and Fire Protection (CAL FIRE)



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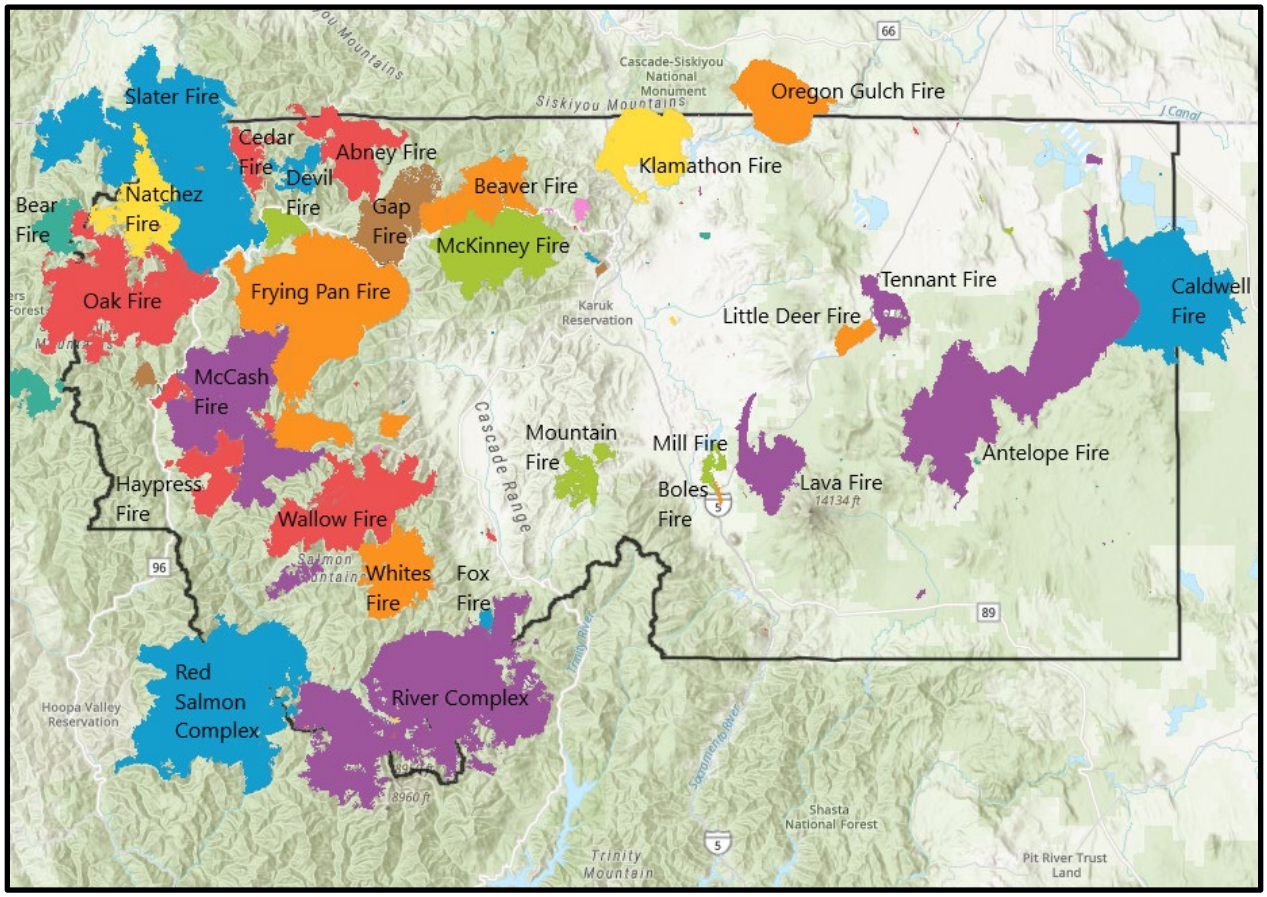
Appendix A
Past Wildfires in Siskiyou County



Largest Wildfires in Siskiyou County from 2006 – 2024:

Year	Name	Start Date	Acreage
2022	McKinney Fire	July 29	60,138
2021	River Complex	July 30	199,359
2021	Antelope Fire	August 1	145,632
2021	McCash Fire	August 18	94,962
2020	Slater Fire	September 8	157,429
2020	Red Salmon Complex	July 27	143,835
2020	Caldwell Fire	July 24	83,261
2017	Klamath River Complex	August 10	91,125
2017	Salmon-August Complex	August 11	63,785
2017	Eclipse Complex	August 15	78,698
2014	Happy Camp Complex	August 11	134,056
2008	Klamath River Complex	June 21	192,038

Appendix A – Past Wildfires in Siskiyou County

2024 Wildfires in Siskiyou County – 16,240 Acres

Fire Name	Cause	Acres	Date
Hambone	Under Investigation	15	10/6/2024
Harry	Under Investigation	10	7/23/2024
Donomore	Under Investigation	35	7/16/2024
Paradise	Under Investigation	101	7/15/2024
Dewey	Under Investigation	109	7/14/2024
Bogus	Under Investigation	411	7/8/2024
Shelly	Under Investigation	15,520	7/3/2024
Cod	Under Investigation	28	6/10/2024
Springs	Under Investigation	11	6/7/2024

2023 Wildfires in Siskiyou County – 22,563 Acres

Fire Name	Cause	Acres	Date
Happy Camp Complex	Under Investigation	21,725	8/16/2023
August Complex	Under Investigation	838	8/15/2023

2022 Wildfires in Siskiyou County – 86,110 Acres

Fire Name	Cause	Acres	Date
97	Under Investigation	30	8/27/2022
Eliza	Under Investigation	20	9/8/2022
Coyote	Under Investigation	297	9/7/2022
Mountain	Under Investigation	13,440	9/2/2022
Mill	Mill Operations	3,939	9/2/2022
Smokey	Under Investigation	34	8/4/2022
Meamber	Under Investigation	63	7/31/2022
Kelsey	Under Investigation	85	7/30/2022
Shackleford	Under Investigation	31	7/30/2022
Yeti	Lightning	7,886	7/29/2022
McKinney	Power Line	60,138	7/29/2022
Ridge	Under Investigation	12	6/26/2022
Whitlow	Under Investigation	10	3/25/2022
Gulch	Under Investigation	113	3/12/2022
Evergreen	Under Investigation	12	3/12/2022

Appendix A – Past Wildfires in Siskiyou County

2021 Wildfires in Siskiyou County – 478,345 Acres

Fire Name	Cause	Acres	Date
McCash	Lightning	94,962	8/18/2021
Hambone	Under Investigation	55	8/6/2021
Antelope	Lightning	145,632	8/1/2021
River Complex	Lightning	199,359	7/30/2021
Bradley	Under Investigation	357	7/11/2021
Tennant	Under Investigation	10,580	6/28/2021
Beswick	Under Investigation	118	6/28/2021
Lava	Lightning	26,409	6/24/2021
Refuge	Under Investigation	873	3/27/2021

2020 Wildfires in Siskiyou County – 396,237 Acres

Fire Name	Cause	Acres	Date
Fox	Campfire	2,188	9/16/2020
Shackleford	Under Investigation	50	9/11/2020
Schoolhouse	Under Investigation	45	9/9/2020
Slater	Power Line	157,429	9/8/2020
Devil	Under Investigation	8,871	9/8/2020
Red Salmon Complex	Lightning	143,835	7/27/2020
Caldwell	Lightning	83,261	7/24/2020
Badger	Under Investigation	557	7/18/2020

2019 Wildfires in Siskiyou County – 2,557 Acres

Fire Name	Cause	Acres	Date
Bar	Under Investigation	91	9/15/2019
Lime	Under Investigation	1,872	9/7/2019
Kidder 2	Under Investigation	227	9/7/2019
Duzel	Under Investigation	15	9/7/2019
Tree	Under Investigation	83	7/27/2019
Community	Under Investigation	35	7/27/2019
Lumgrey	Under Investigation	207	6/17/2019
Iron Gate	Under Investigation	10	6/16/2019
Rocky	Under Investigation	17	6/14/2019

Appendix A – Past Wildfires in Siskiyou County

2018 Wildfires in Siskiyou County – 76,862 Acres

Fire Name	Cause	Acres	Date
Iron Gate	Under Investigation	15	10/10/2018
Natchez	Lightning	38,134	7/15/2018
Steamboat	Under Investigation	224	7/15/2018
Klamathon	Debris Burning	38,008	7/5/2018
Petersburg	Under Investigation	215	7/1/2018
Cherry	Under Investigation	63	6/27/2018
Meamber	Under Investigation	12	6/4/2018
Martin	Under Investigation	37	6/3/2018
Ager	Under Investigation	27	5/19/2018
Shastina	Under Investigation	127	5/9/2018

2017 Wildfires in Siskiyou County – 301,521 Acres

Fire Name	Cause	Acres	Date
Owens	Under Investigation	55	8/29/2017
Bradley	Under Investigation	54	8/28/2017
Eclipse Complex *	Lightning	78,698	8/15/2017
Miller Complex *	Lightning	39,715	8/14/2017
Ward	Under Investigation	41	8/13/2017
Salmon-August Complex *	Lightning	63,785	8/11/2017
Klamath River Complex *	Lightning	91,125	8/10/2017
Hill	Under Investigation	155	7/29/2017
Orleans	Lightning	27,276	7/26/2017
Fay	Under Investigation	496	7/5/2017
King	Under Investigation	19	6/26/2017
Bogus	Under Investigation	56	6/18/2017
Whitepine	Under Investigation	46	6/6/2017

- The Eclipse Complex includes the Young, Clear, and Cedar fires.
- The Miller Complex includes the Abney, Knox, and Burnt Peak fires.
- The Salmon-August Complex includes the Wallow fire.
- The Klamath River Complex includes the Oak fire.

2016 Wildfires in Siskiyou County – 37,574 Acres

Fire Name	Cause	Acres	Date
Moffett	Under Investigation	32	9/12/2016
Gap	Arson	33,867	8/26/2016
Grade	Under Investigation	710	8/24/2016
Table/Bailey	Under Investigation	49	7/19/2016
Pony	Under Investigation	2,860	6/7/2016
Mill	Under Investigation	56	5/19/2016

2015 Wildfires in Siskiyou County – 12,148 Acres

Fire Name	Cause	Acres	Date
Military	Under Investigation	58	10/10/2015
Prairie	Under Investigation	69	8/20/2015
Bear	Lightning	11,616	7/30/2015
Dorris	Under Investigation	24	7/21/2015
Cooley	Under Investigation	181	7/13/2015
Stephens	Under Investigation	200	2/24/2015

2014 Wildfires in Siskiyou County – 257,915 Acres

Fire Name	Cause	Acres	Date
Boles	Arson	516	9/14/2014
Oregon Gulch	Lightning	35,302	8/12/2014
Happy Camp Complex *	Lightning	134,056	8/11/2014
Little Deer	Lightning	5,503	8/11/2014
July Complex *	Lightning	50,042	8/2/2014
Beaver	Lightning	32,496	7/30/2014

- The Happy Camp Complex includes the Frying Pan fire.
- The July Complex includes the Whites fire.

2013 Wildfires in Siskiyou County – 14,844 Acres

Fire Name	Cause	Acres	Date
Cottonwood	Under Investigation	50	8/15/2013
Salmon River Complex *	Under Investigation	14,754	7/31/2013
Trout	Under Investigation	40	7/13/2013

- The Salmon River Complex includes the Butler, Boulder, and Shelly fires.

2012 Wildfires in Siskiyou County – 24,163 Acres

Fire Name	Cause	Acres	Date
Fort Complex *	Under Investigation	23,653	8/5/2012
Dillon	Under Investigation	318	8/3/2012
Oak	Under Investigation	192	6/28/2012

- The Fort Complex includes the Goff, Lick and Hello fires.

2011 Wildfires in Siskiyou County – 120 Acres

Fire Name	Cause	Acres	Date
Hawkinsville	Under Investigation	120	9/11/2011

2010 Wildfires in Siskiyou County – 371 Acres

Fire Name	Cause	Acres	Date
Dutch	Under Investigation	371	7/31/2011

2009 Wildfires in Siskiyou County – 4,589 Acres

Fire Name	Cause	Acres	Date
Black	Under Investigation	103	9/2/2009
Red Rock	Under Investigation	1,364	8/21/2009
Tennant	Under Investigation	3,225	7/19/2009

2008 Wildfires in Siskiyou County – 192,038 Acres

Fire Name	Cause	Acres	Date
Klamath River Complex *	Lightning	192,038	6/21/2008

- The Klamath River Complex includes the Blue 2, Bear Wallow, Panther, and Siskiyou Complex fires.

2007 Wildfires in Siskiyou County – 20,685 Acres

Fire Name	Cause	Acres	Date
Cherry	Under Investigation	95	8/29/2007
Elk Complex	Under Investigation	17,684	7/10/2007
China & Back Complex	Under Investigation	2,906	7/10/2007

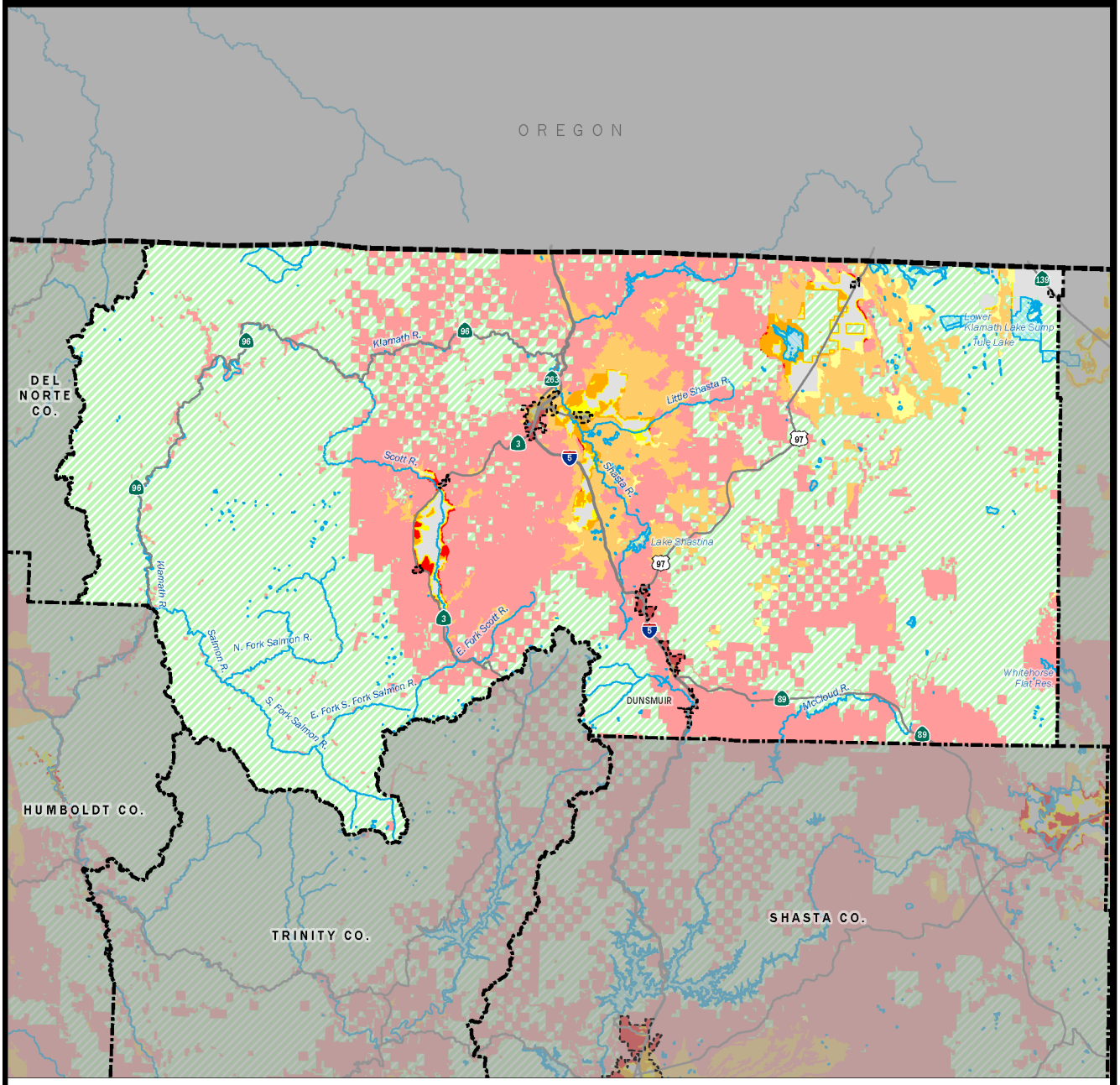
2006 Wildfires in Siskiyou County – 38,321 Acres

Fire Name	Cause	Acres	Date
Lakin	Under Investigation	450	7/25/2006
Hoy	Under Investigation	1,283	7/26/2026
Uncles Complex *	Lightning	36,588	7/23/2006

- The Uncles Complex includes the Titus and Happy Camp fires.

SISKIYOU COUNTY
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the
State Fire Marshal
January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High | High | Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High | High | Moderate

Mi 0 10 20 30 40
Km 0 10 20 30 40 50 60

Projection: NAD 83 California Teale Albers
Scale: 1:797,000 at 11" x 17"

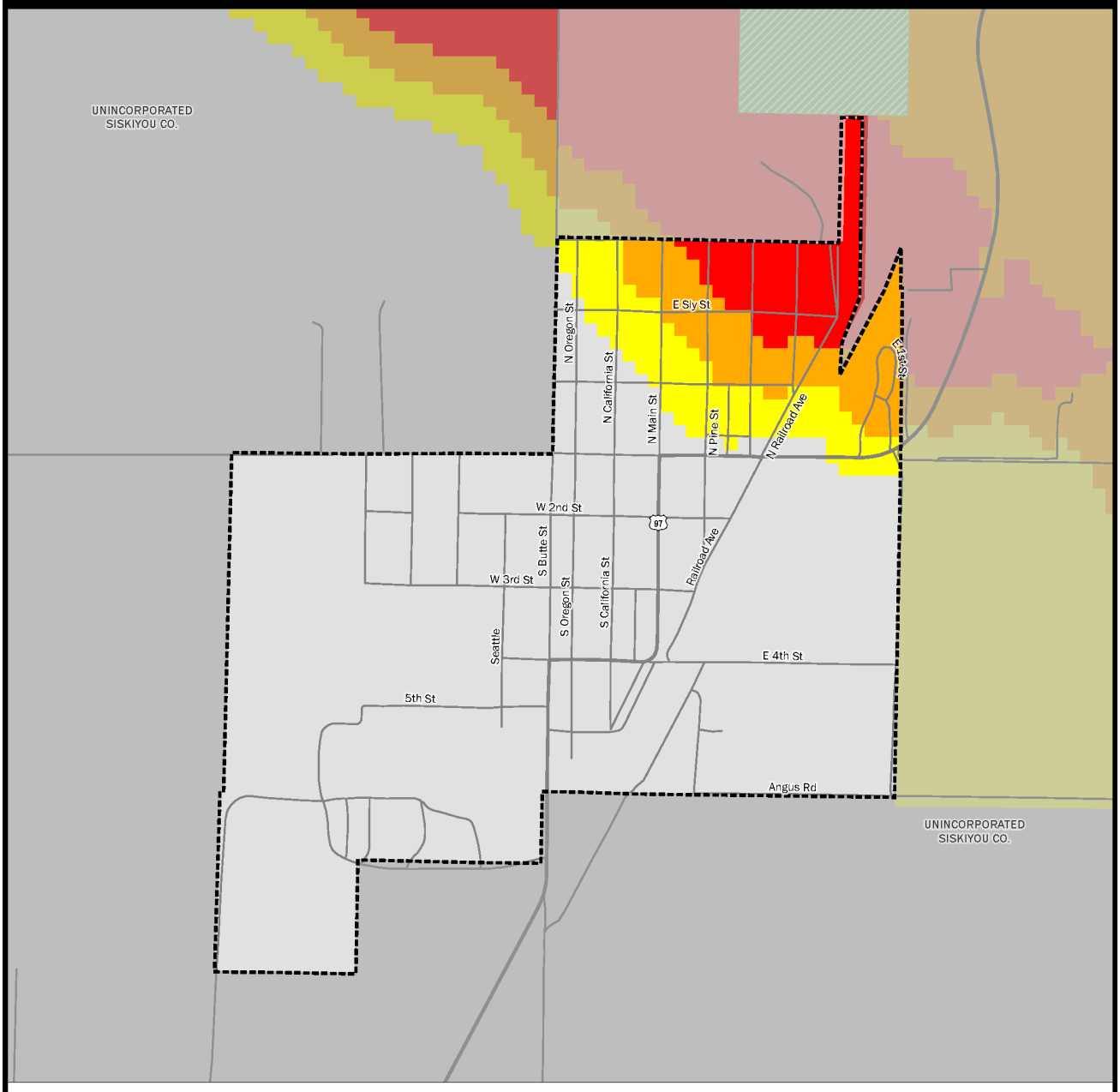
Incorporated City | Waterbody
Unzoned LRA | Federal Responsibility Area (FRA)

CITY OF DORRIS

Local Responsibility Area Fire Hazard Severity Zones

As Identified by the State Fire Marshal

January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High | High | Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High | High | Moderate

Mi 0 0.2 0.4

Km 0 0.2 0.4 0.6 0.8

Projection: NAD 83 California Teale Albers
Scale: 1:10,000 at 11" x 17"

Incorporated City

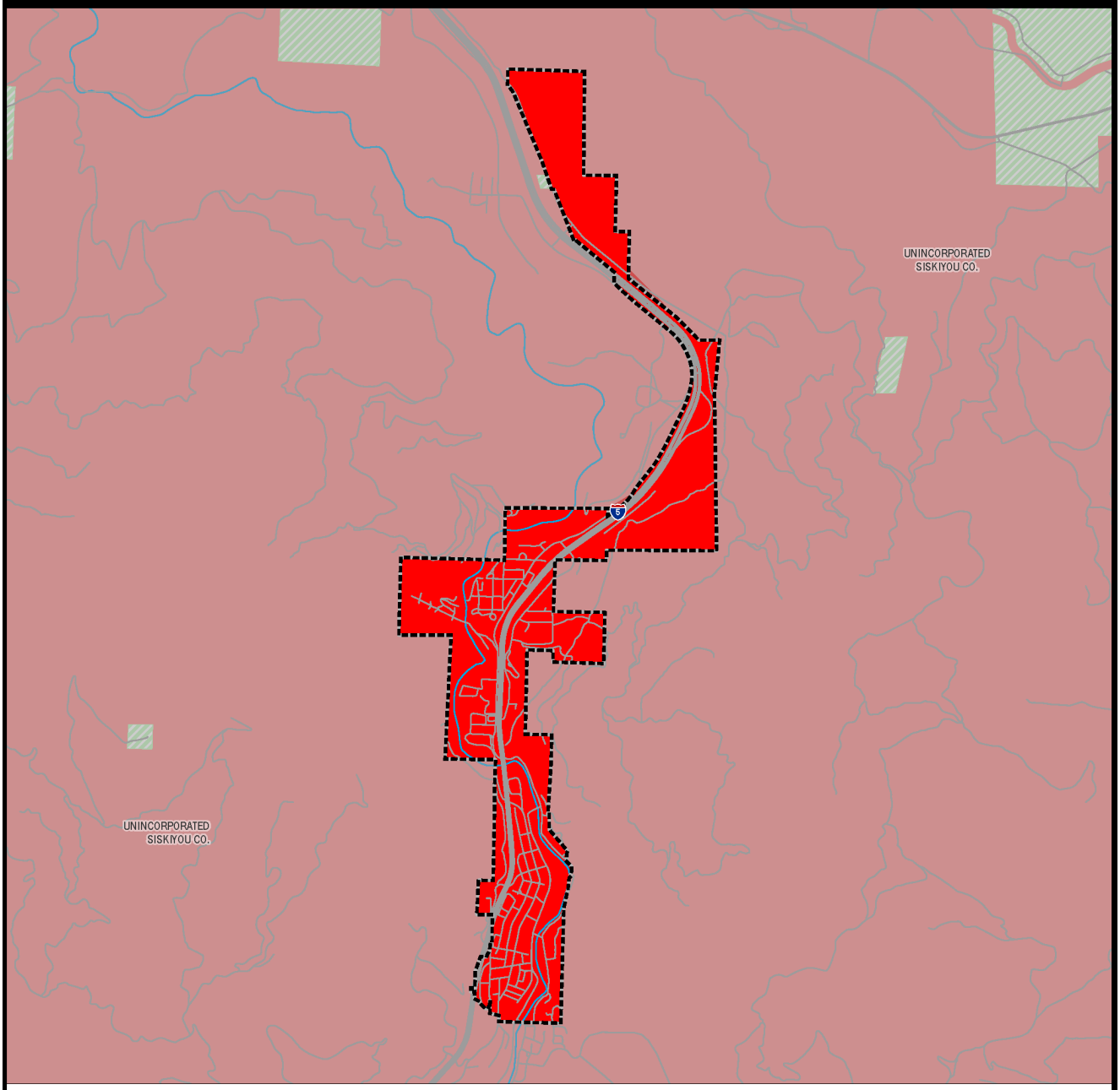
Federal Responsibility Area (FRA)

Unzoned LRA

CITY OF DUNSMUIR
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the State Fire Marshal

January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High

Mi 0 1

Km 0 1 2

Projection: NAD 83 California Teale Albers
Scale: 1:33,000 at 11" x 17"

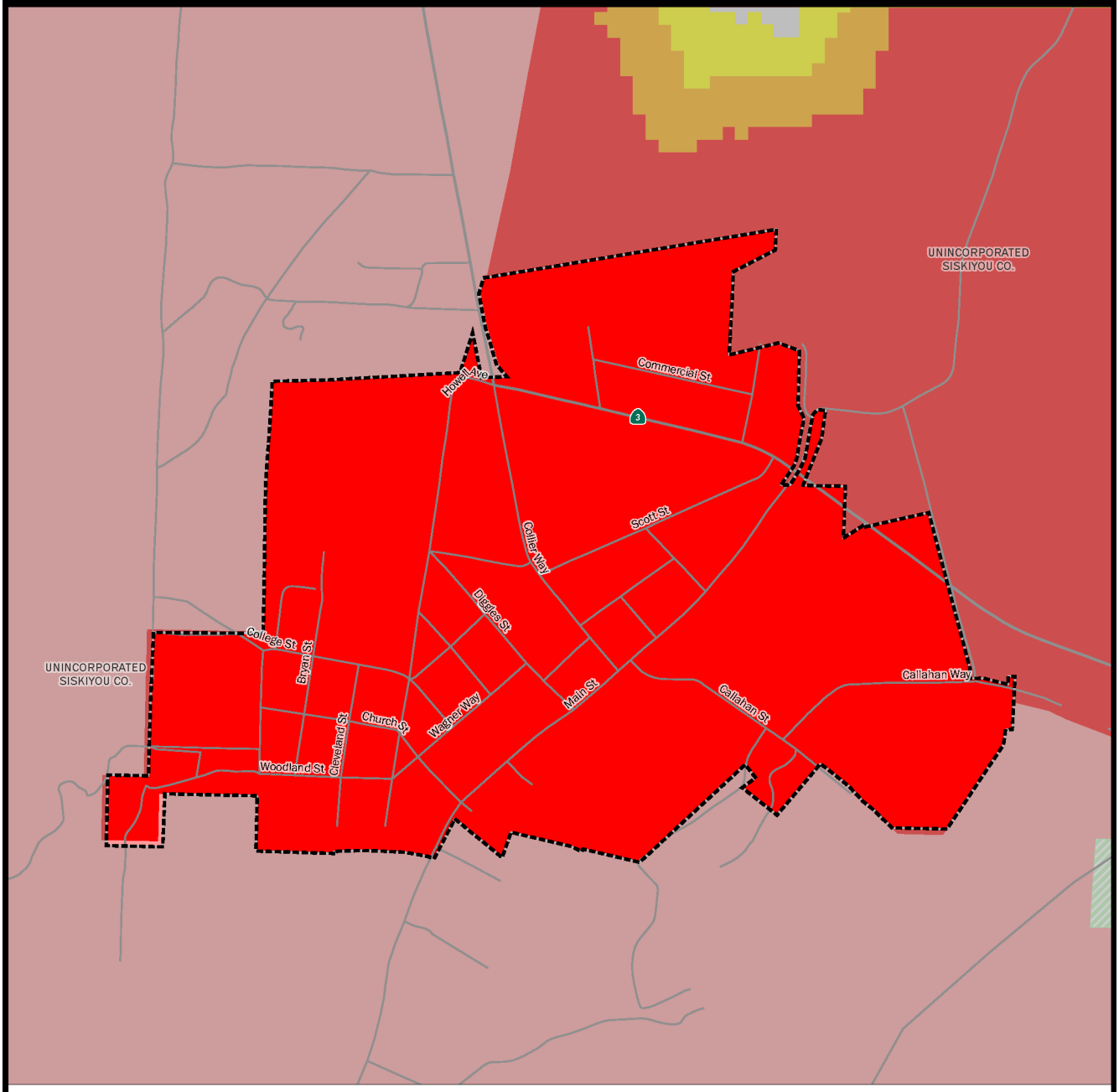
Incorporated City

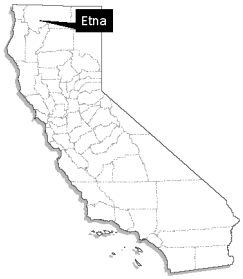
Federal Responsibility Area (FRA)

Unzoned LRA

CITY OF ETNA
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the
State Fire Marshal
January 22, 2025





Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High High Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High

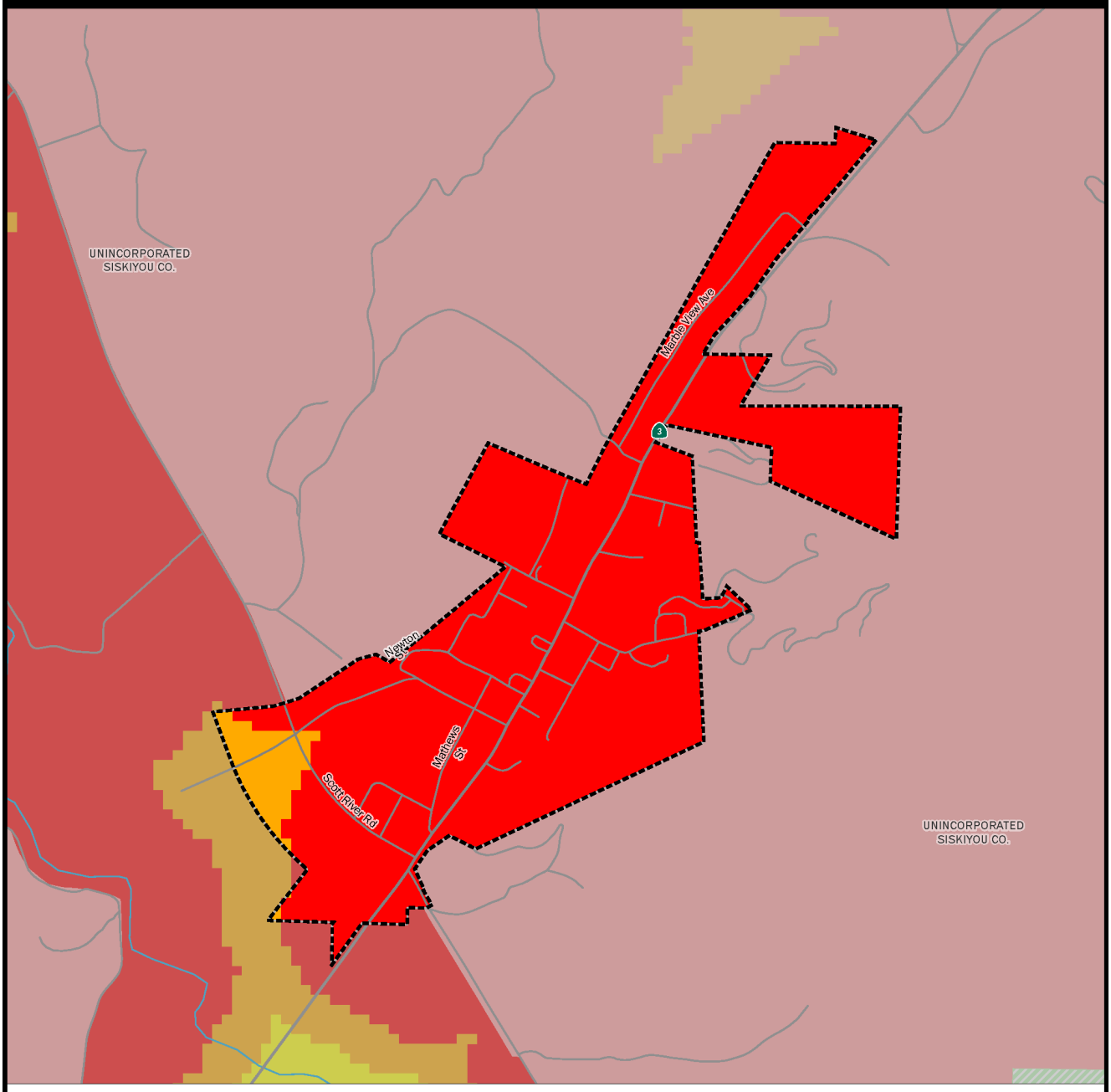
Mi 0 0.2 0.4
Km 0 0.2 0.4 0.6 0.8

Projection: NAD 83 California Teale Albers
Scale: 1:10,000 at 11" x 17"

Incorporated City
Federal Responsibility Area (FRA)
Unzoned LRA

CITY OF FORT JONES
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the
State Fire Marshal
January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High High Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High High

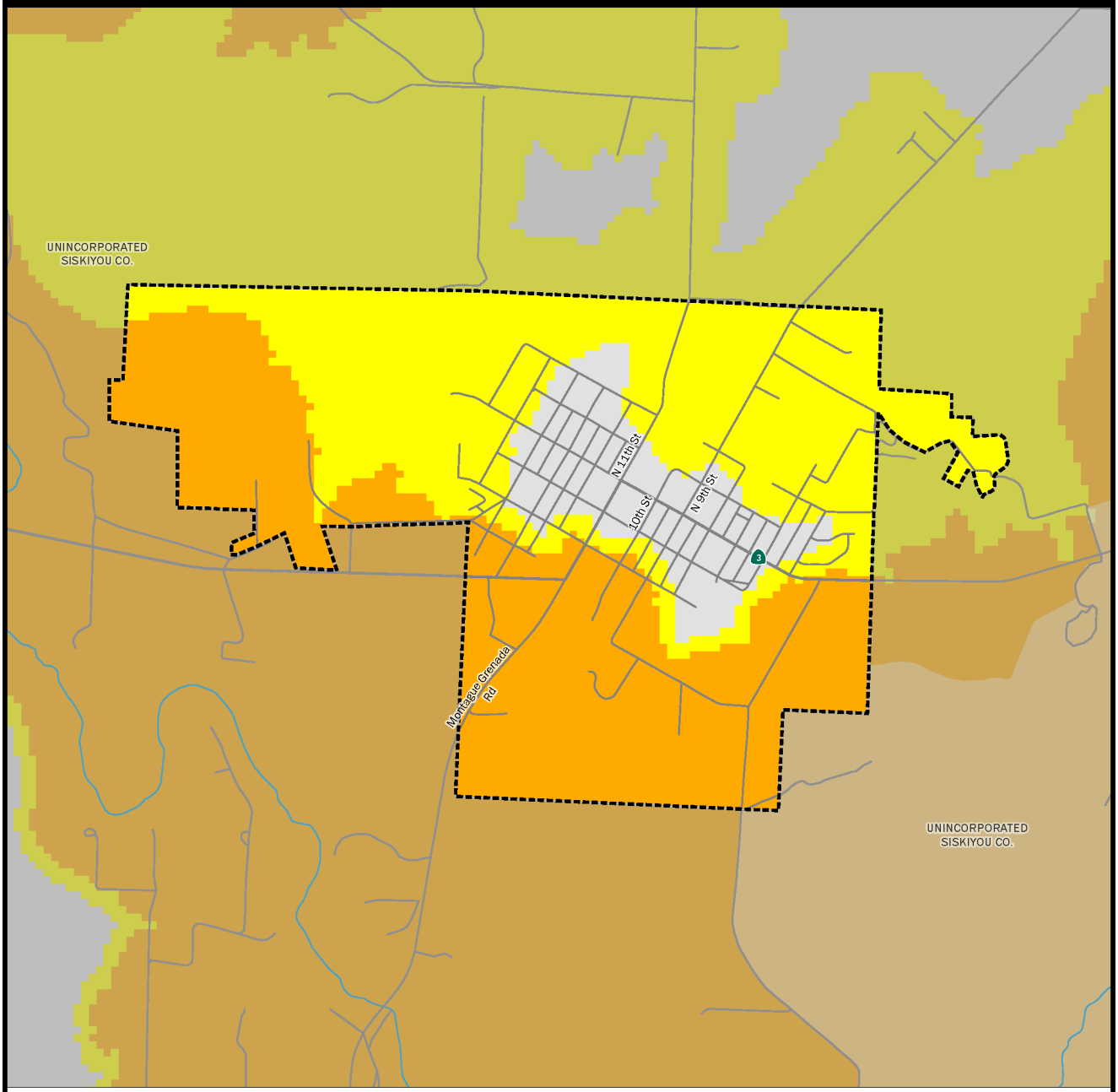
Mi 0 0.2 0.4 0.6
Km 0 0.2 0.4 0.6 0.8 1

Projection: NAD 83 California Teale Albers
Scale: 1:13,000 at 11" x 17"

Incorporated City
Federal Responsibility Area (FRA)
Unzoned LRA

CITY OF MONTAGUE
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the
State Fire Marshal
January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

High Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

High Moderate

Mi 0 0.2 0.4 0.6 0.8
Km 0 0.2 0.4 0.6 0.8 1 1.2

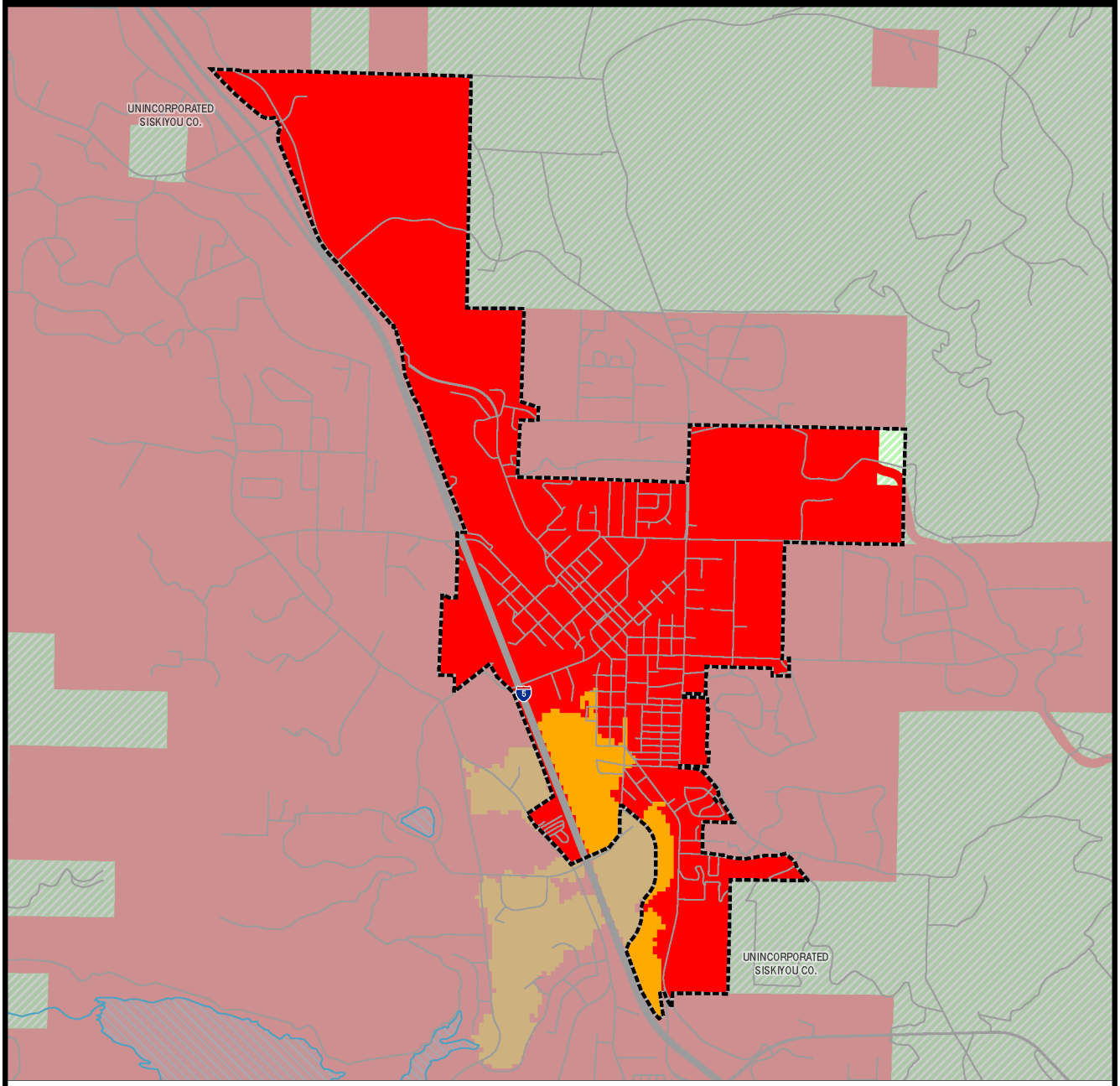
Projection: NAD 83 California Teale Albers
Scale: 1:17,000 at 11" x 17"

Incorporated City

Unzoned LRA

CITY OF MOUNT SHASTA
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the
State Fire Marshal
January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High High

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High High

Mi 0 1
Km 0 1 2

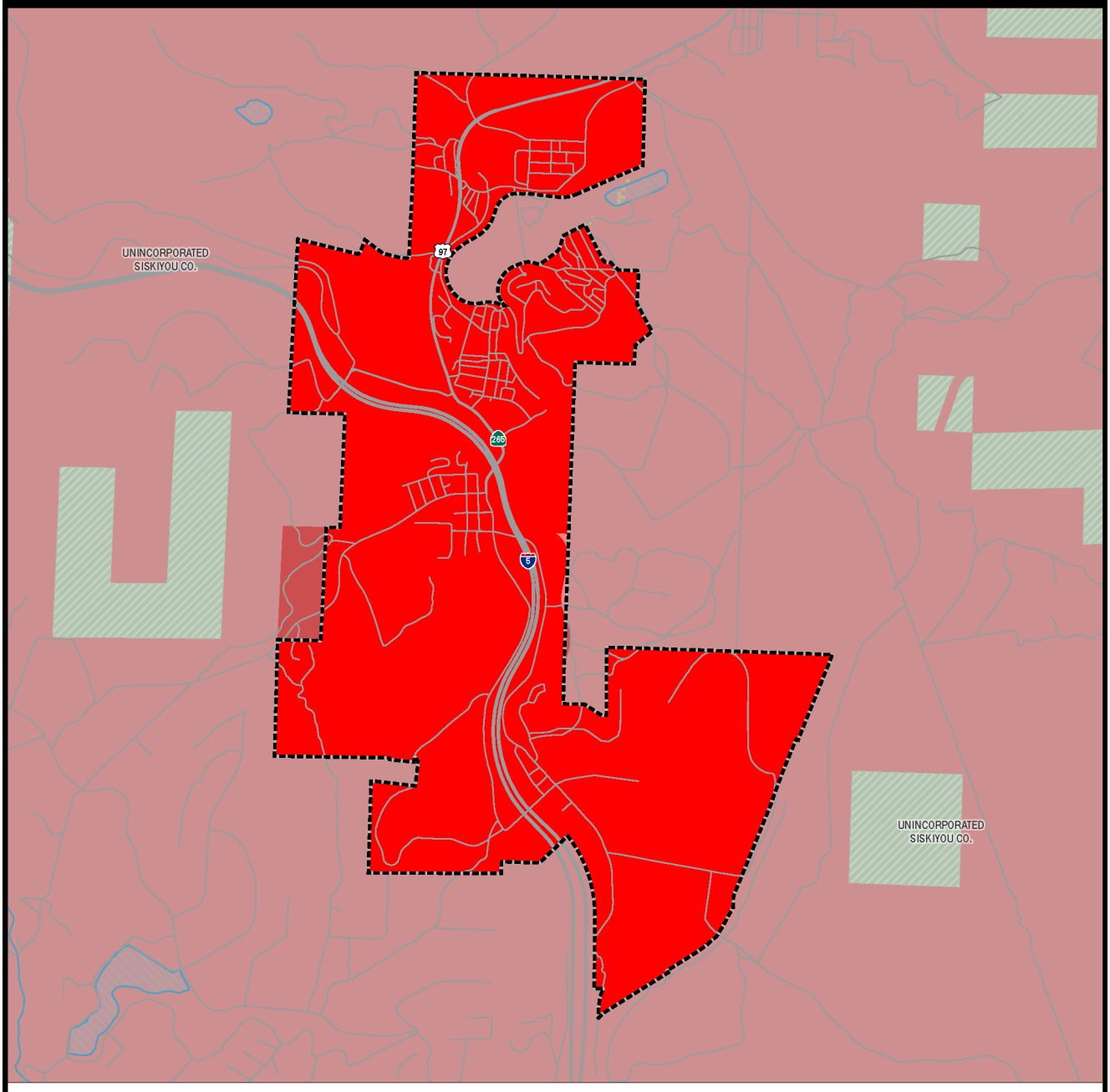
Projection: NAD 83 California Teale Albers
Scale: 1:30,000 at 11" x 17"

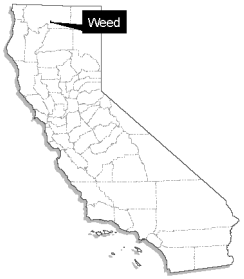
Incorporated City Waterbody
Unzoned LRA Federal Responsibility Area (FRA)

CITY OF WEED
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the State Fire Marshal

January 22, 2025





Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High

High

Mi 0 1

Km 0 1 2

Projection: NAD 83 California Teale Albers
Scale: 1:30,000 at 11" x 17"

Incorporated City

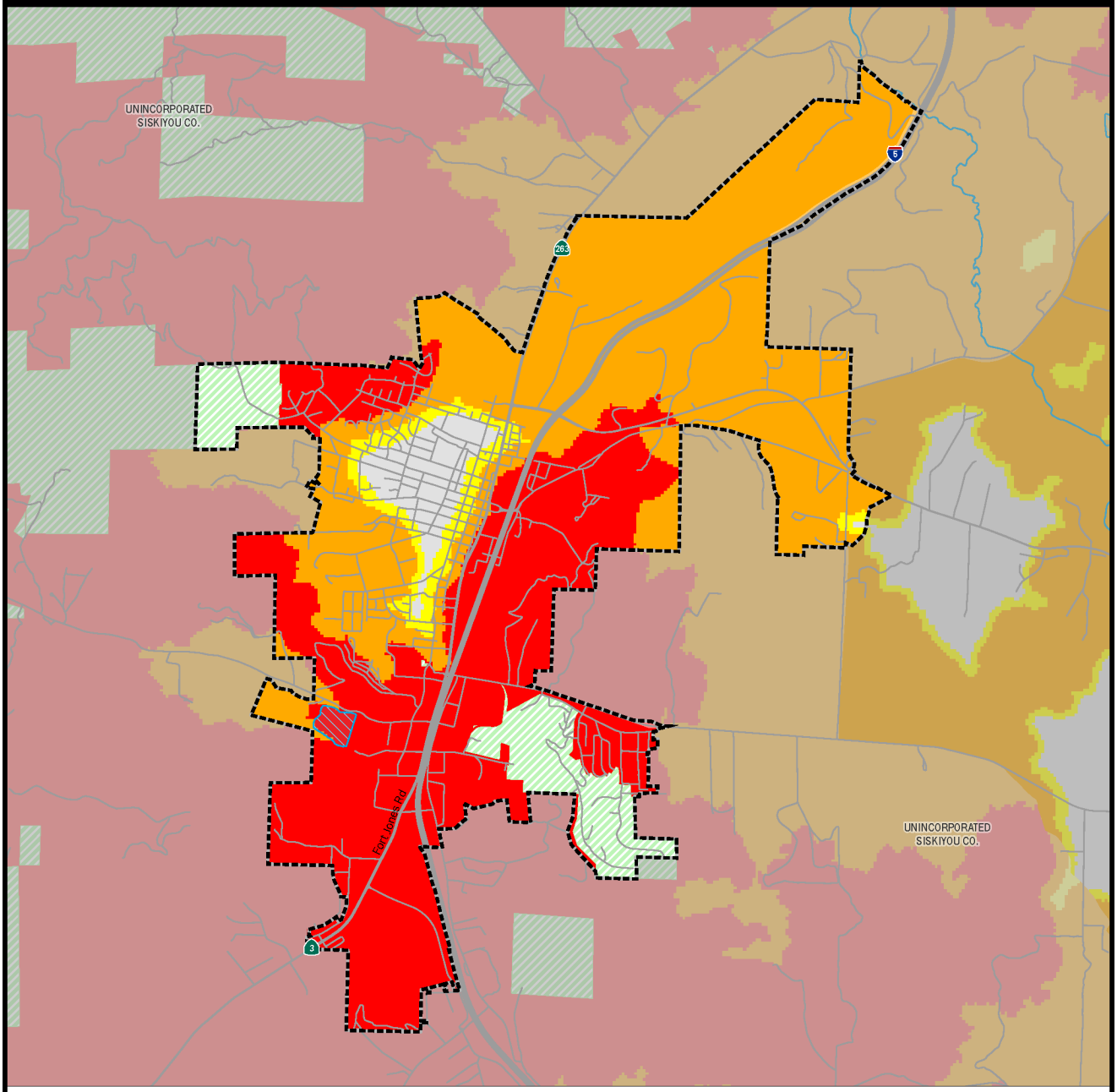
Waterbody

Unzoned LRA

Federal Responsibility Area (FRA)

CITY OF YREKA
Local Responsibility Area
Fire Hazard Severity Zones

As Identified by the
State Fire Marshal
January 22, 2025



Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High High Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High High Moderate

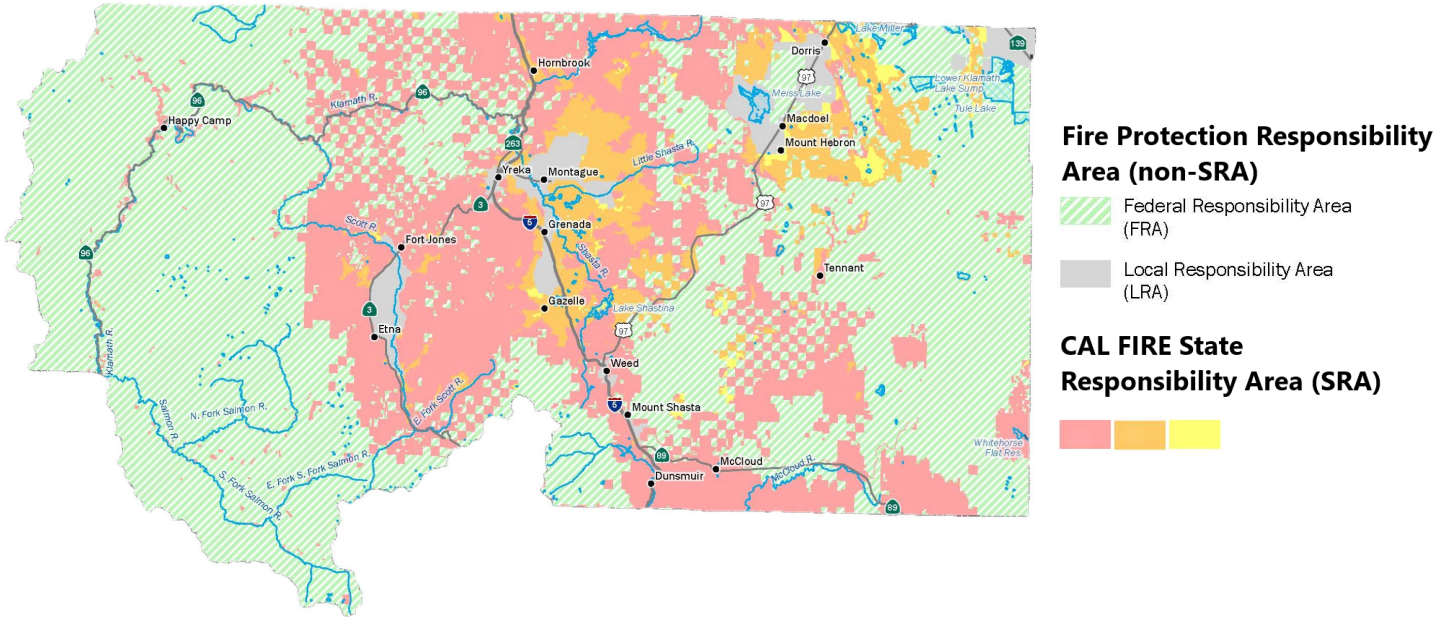
Mi 0 1 2
Km 0 1 2 3

Projection: NAD 83 California Teale Albers
Scale: 1:42,000 at 11" x 17"

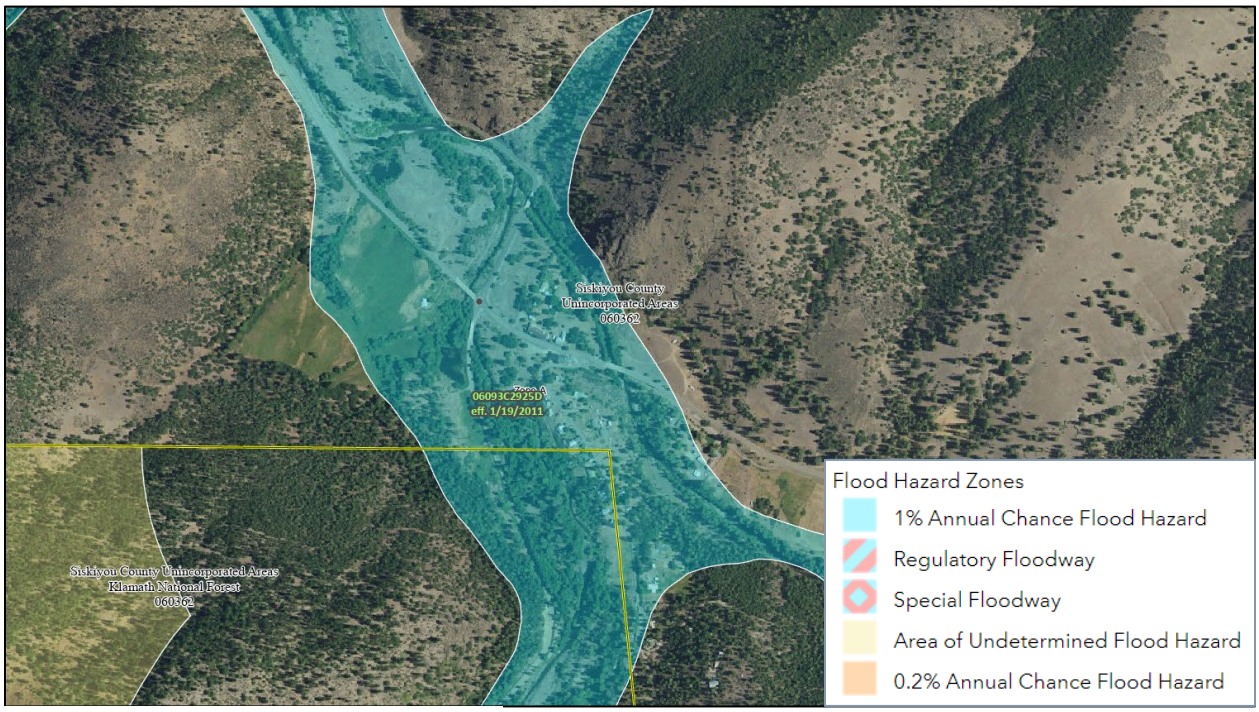
Incorporated City Waterbody
Unzoned LRA Federal Responsibility Area (FRA)

Appendix C
Distribution of Land Uses in VHFHSZs and SRAs

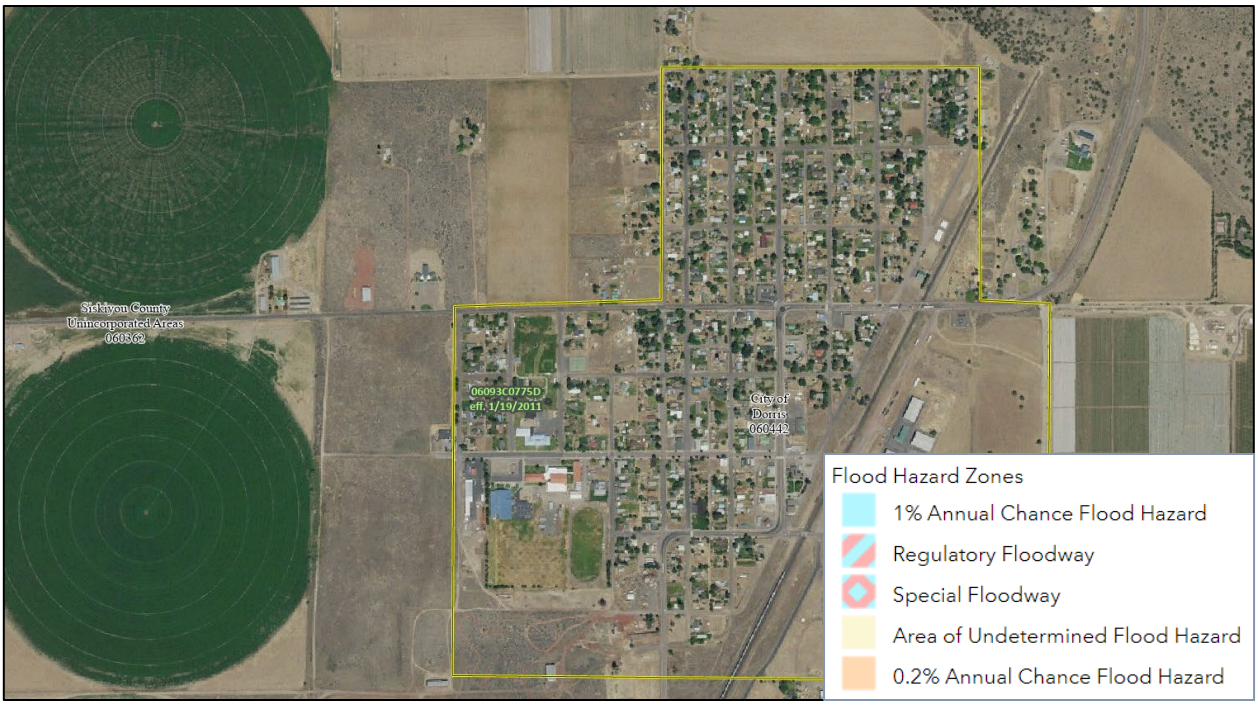
The Klamath National Forest is zoned Rural Residential (R-R). The State Responsibility Area includes zoning for Timber Production (TPZ), Rural Residential (R-R), Prime and Non-Prime Agriculture (AG-1 and 2), Heavy Industrial (M-H), and Open Space (O).



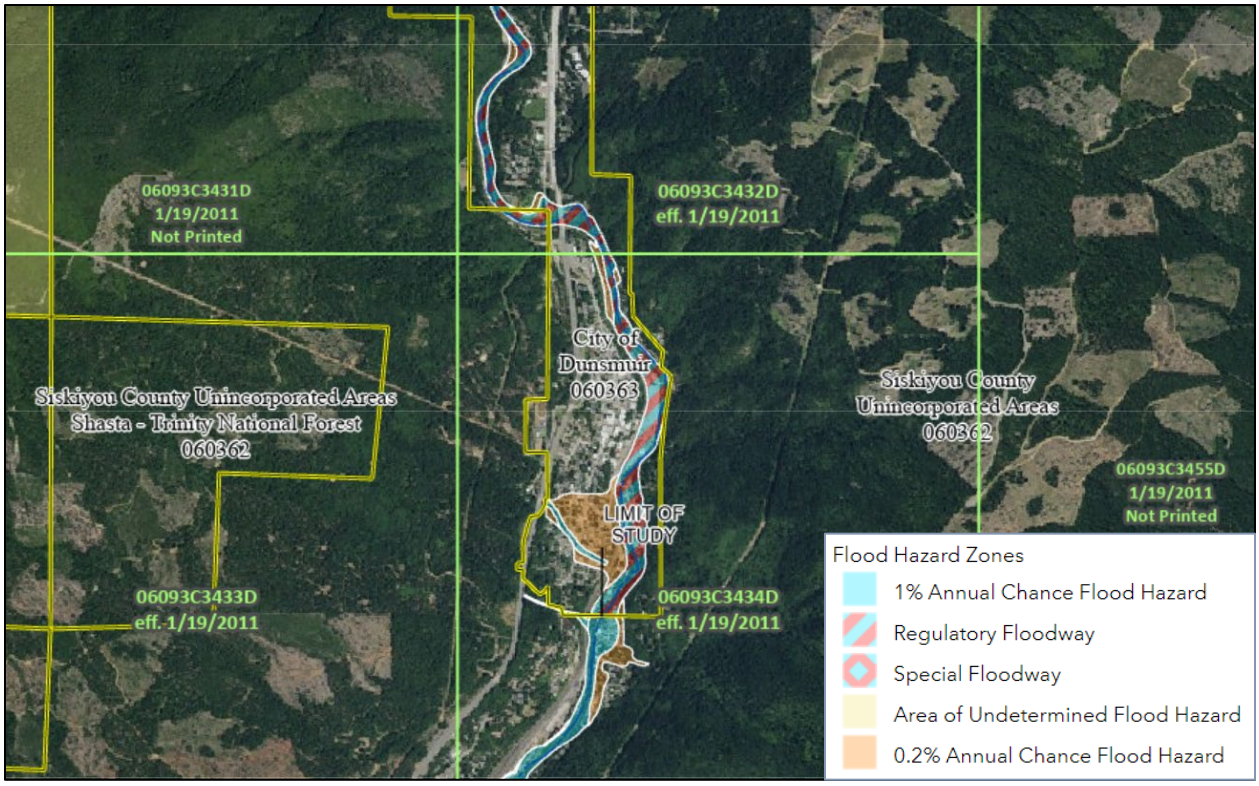
Appendix D
FEMA Flood Maps for Siskiyou County



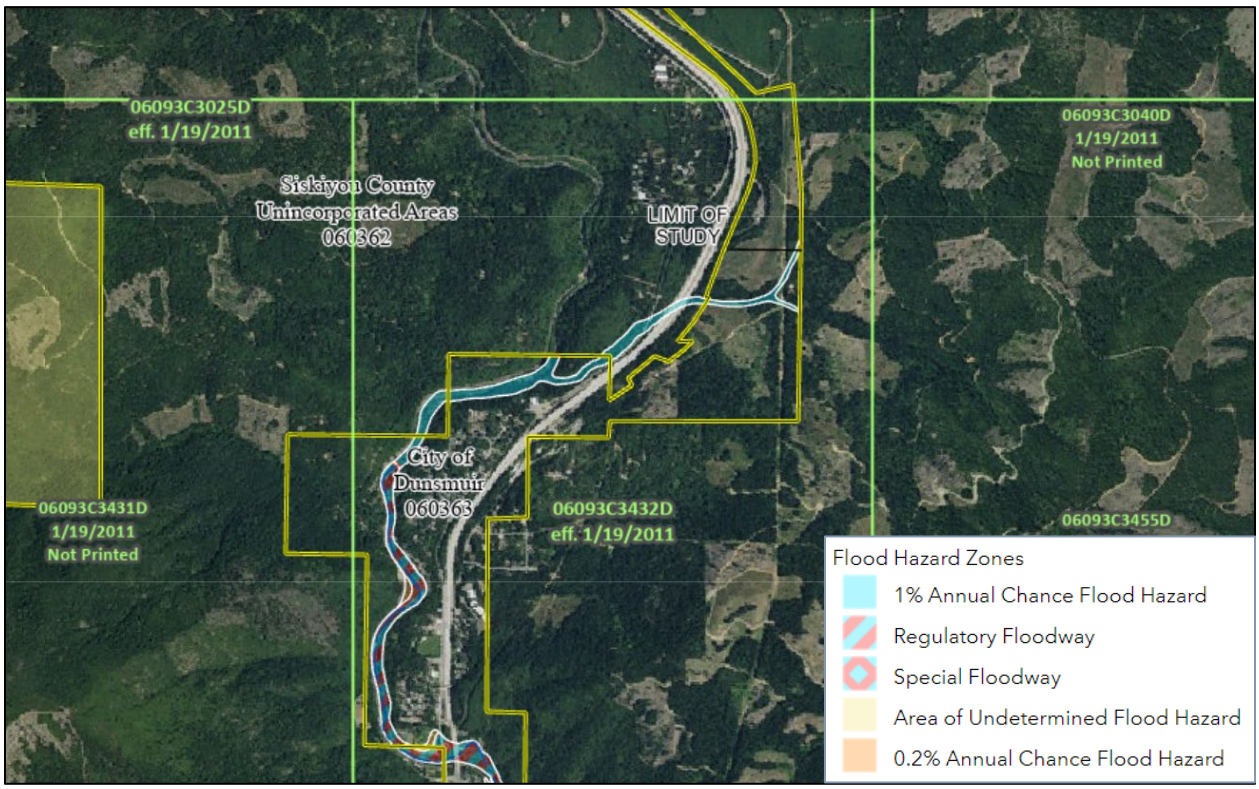
Callahan, CA



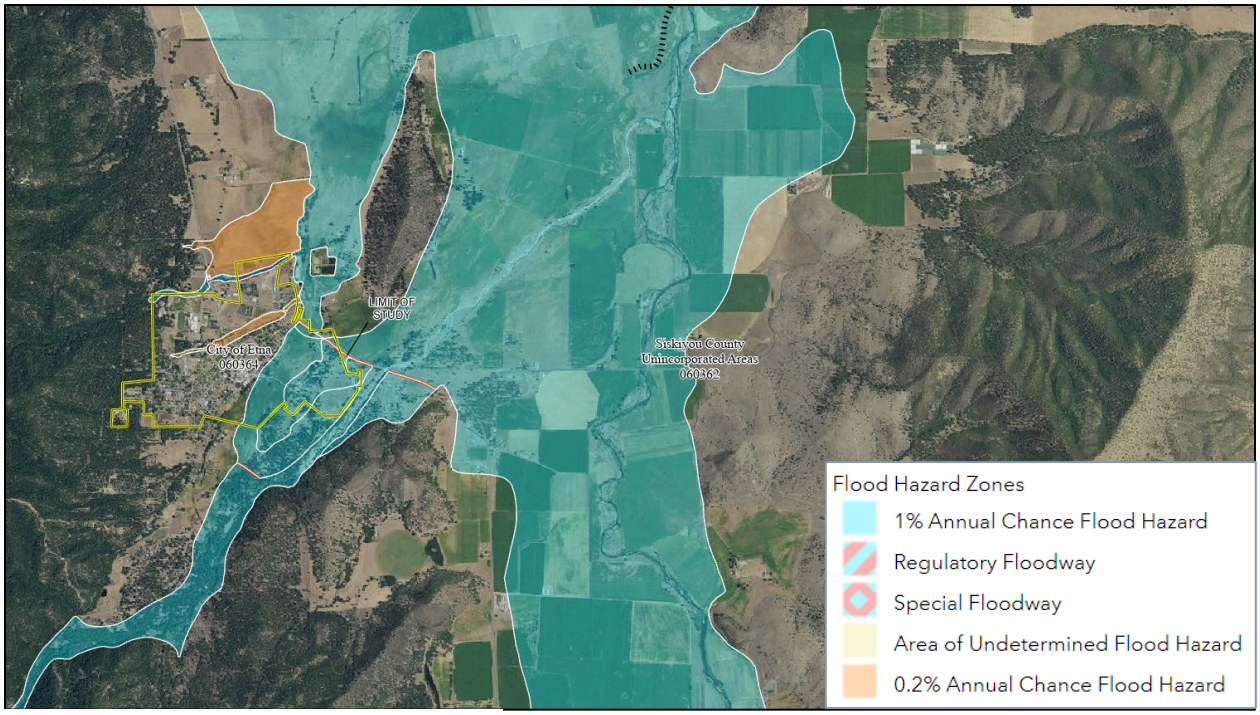
Dorris, CA



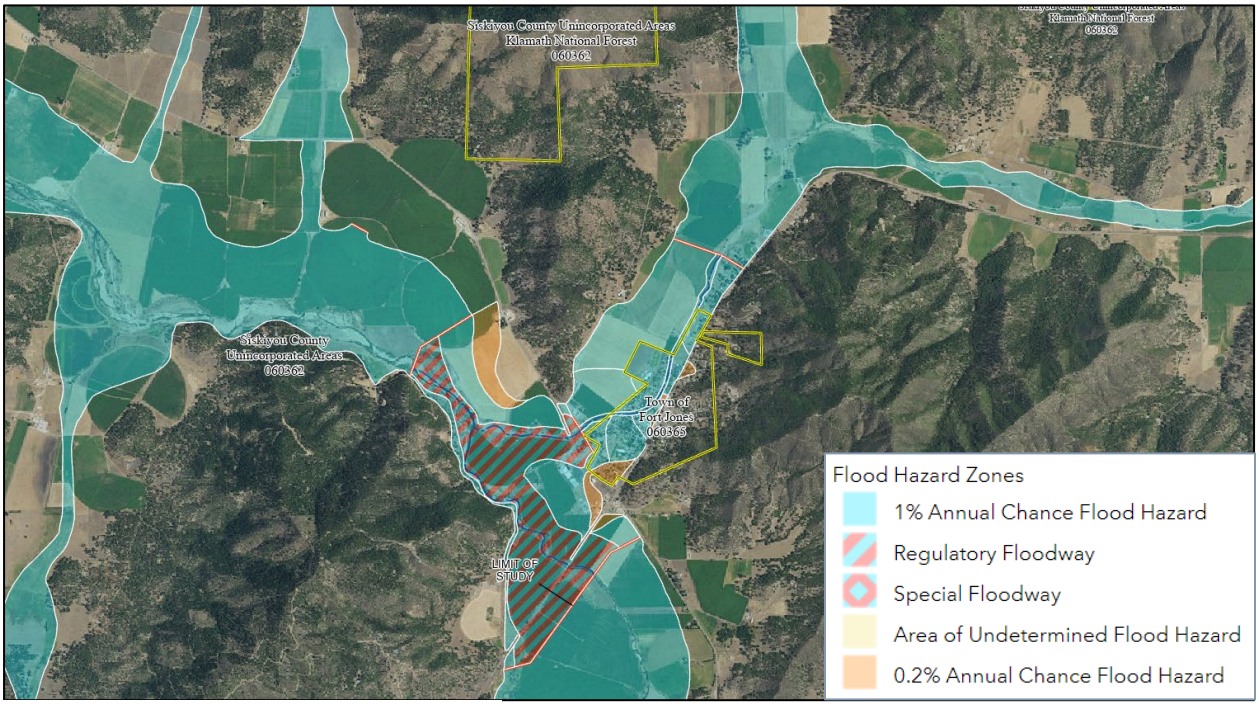
Dunsmuir, CA



North Dunsmuir, CA

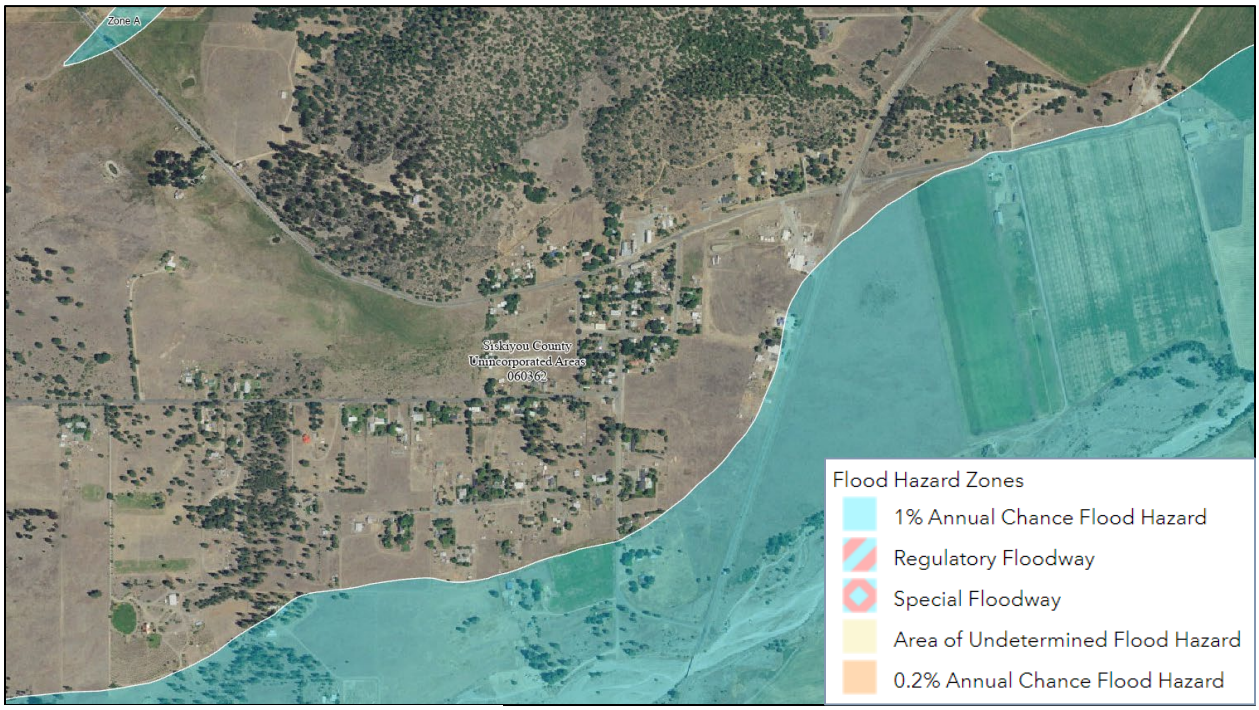


Etna, CA

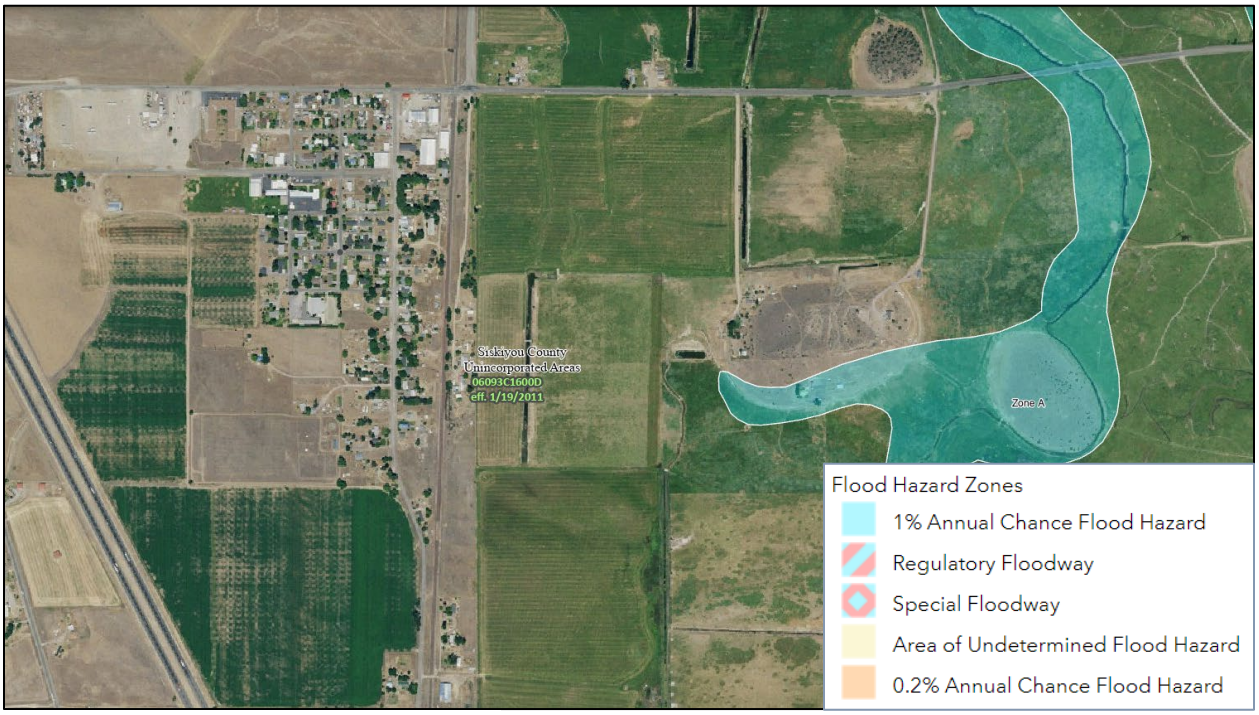


Fort Jones, CA

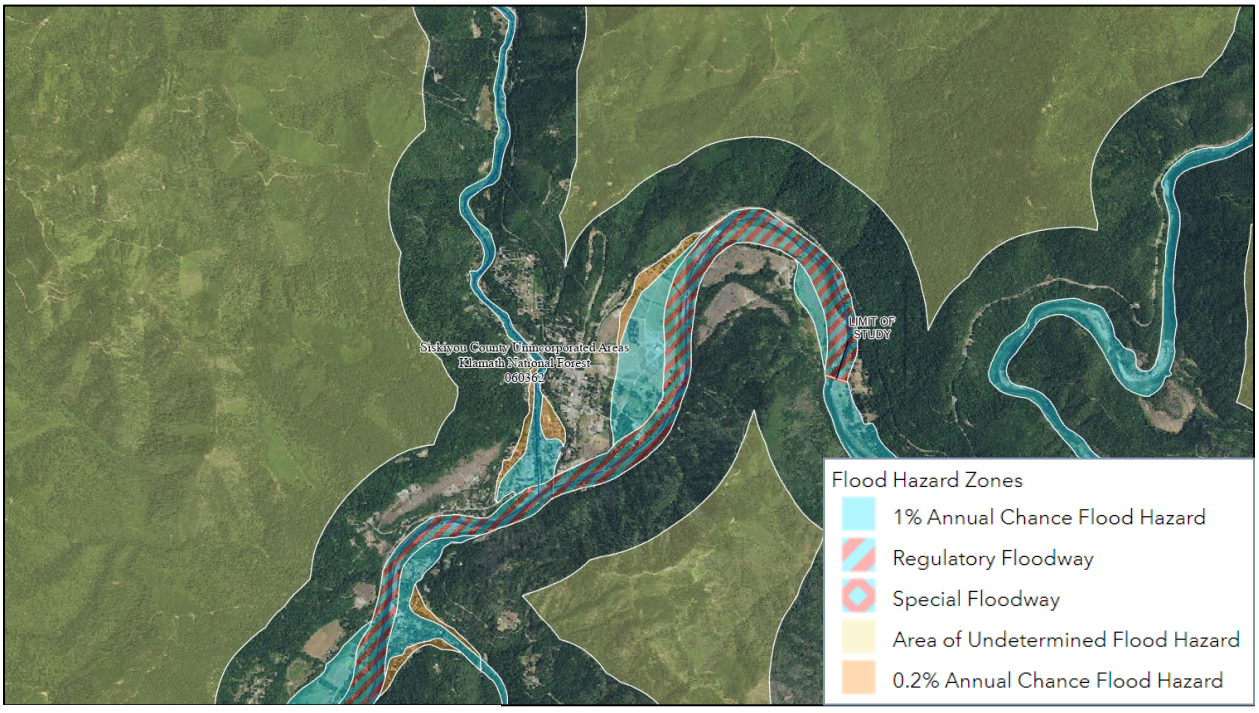
Gazelle, CA



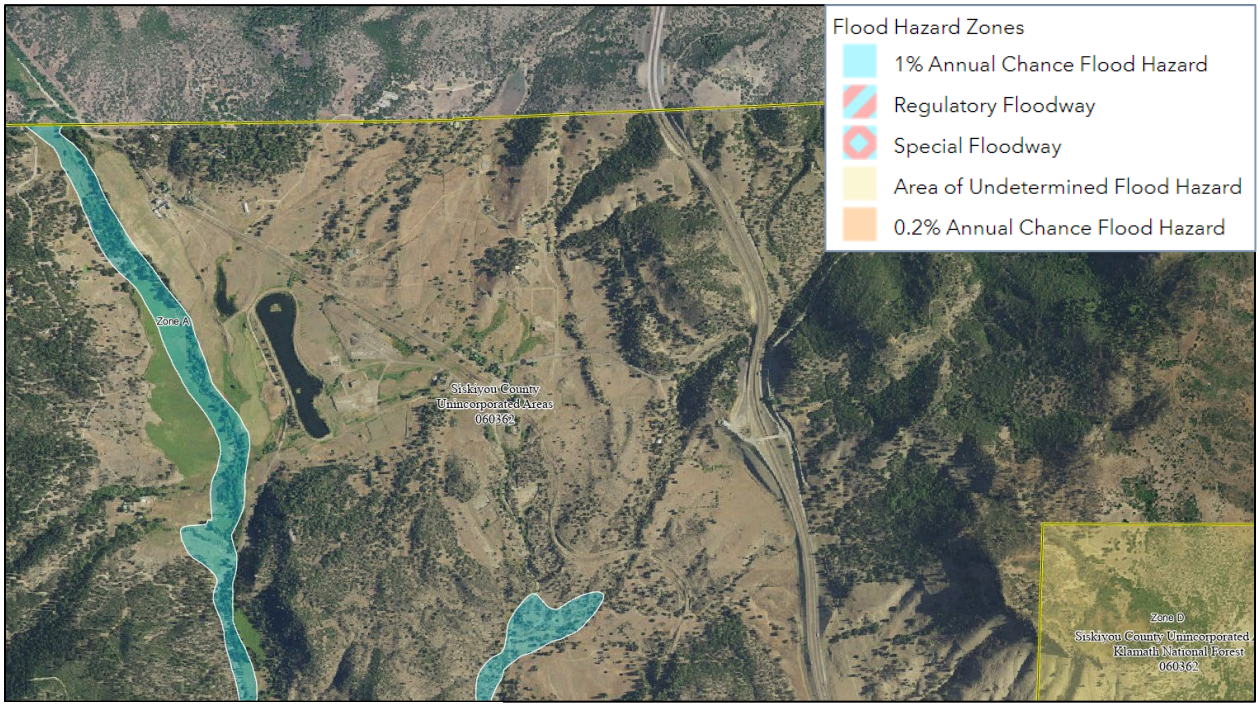
Greenview, CA



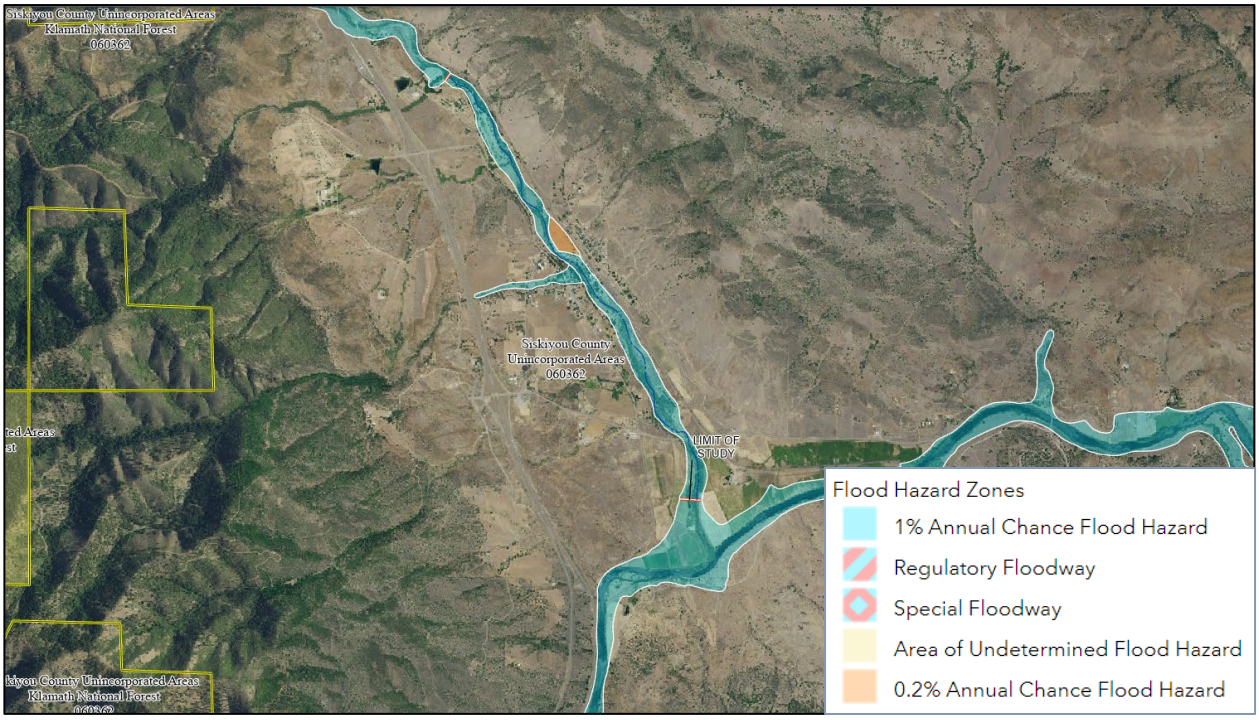
Grenada, CA



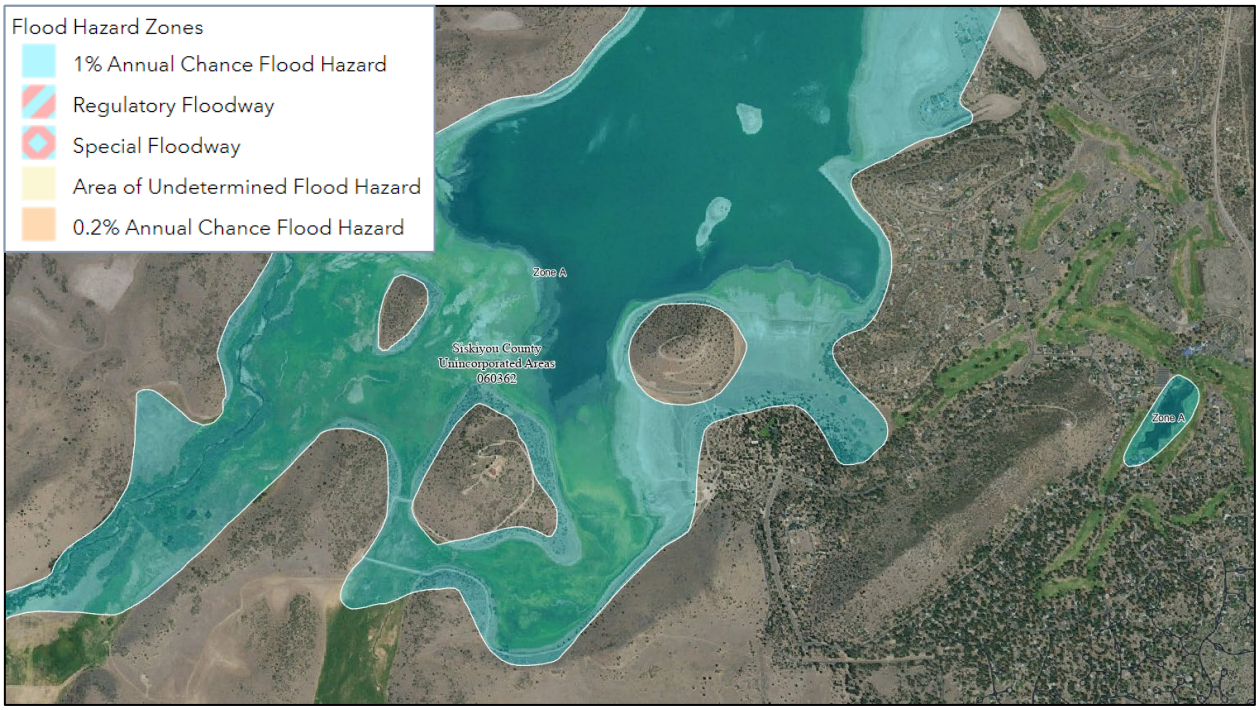
Happy Camp, CA



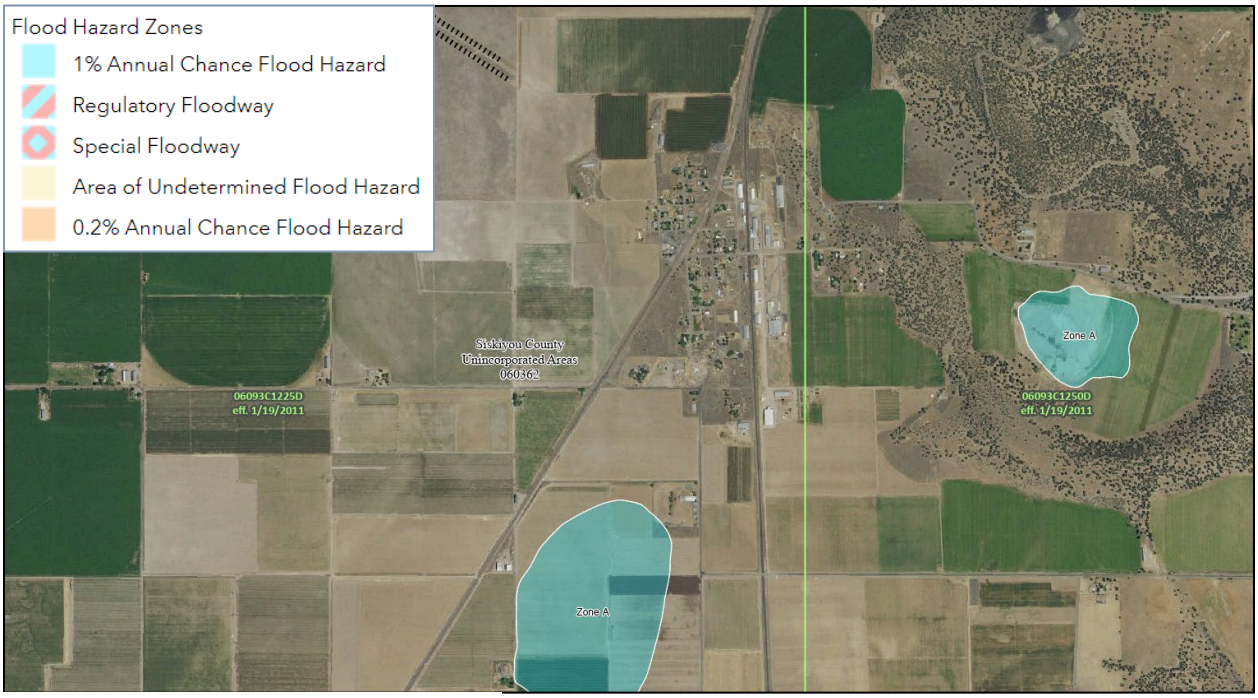
Hilt, CA



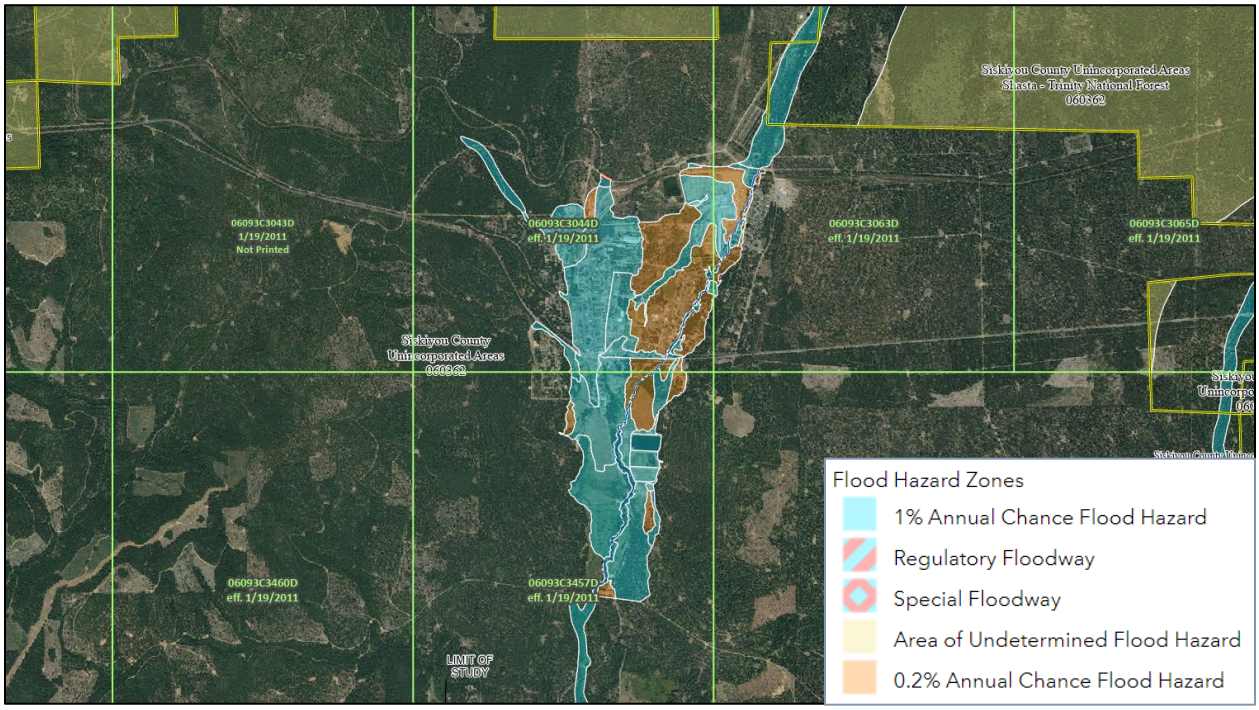
Hornbrook, CA



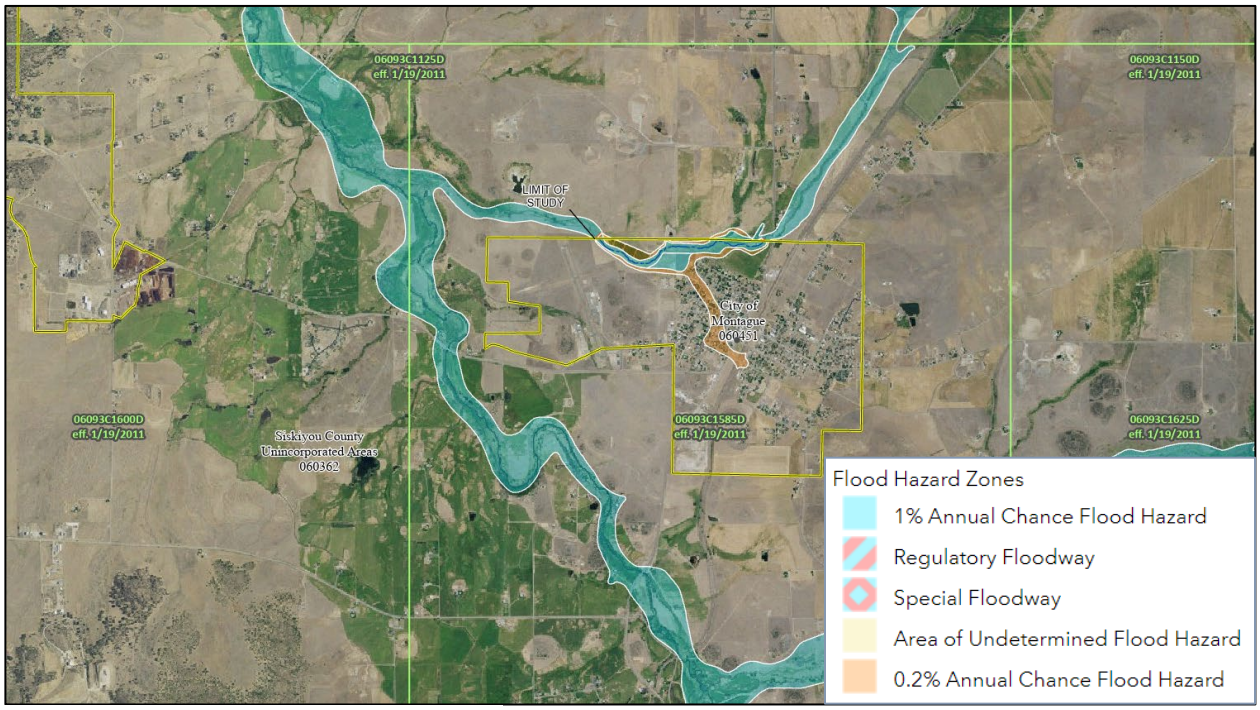
Lake Shastina, CA



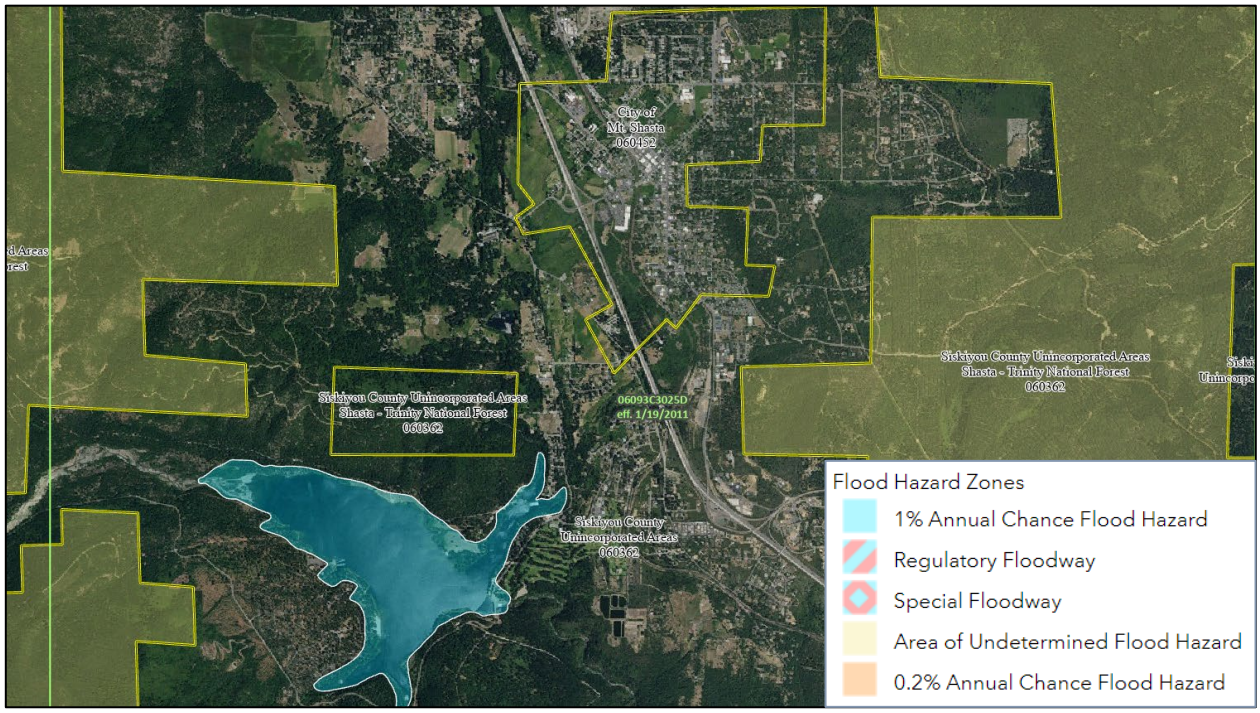
Macdoel, CA



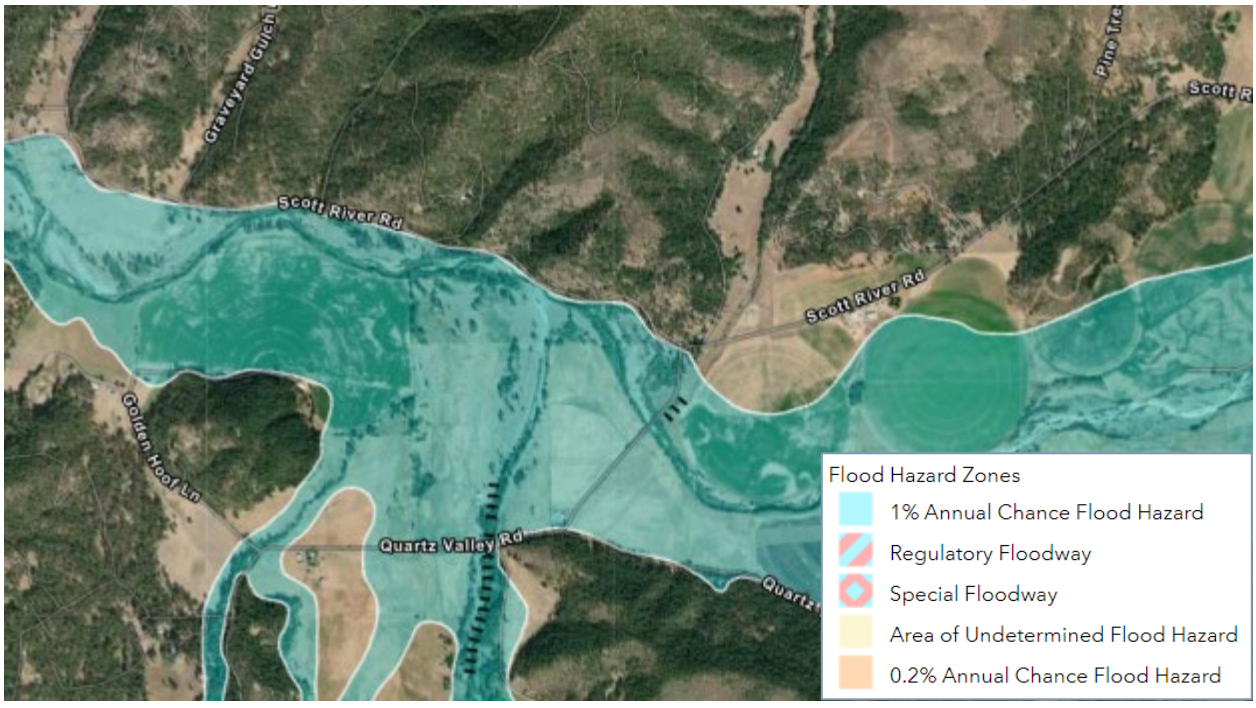
McCloud, CA



Montague, CA

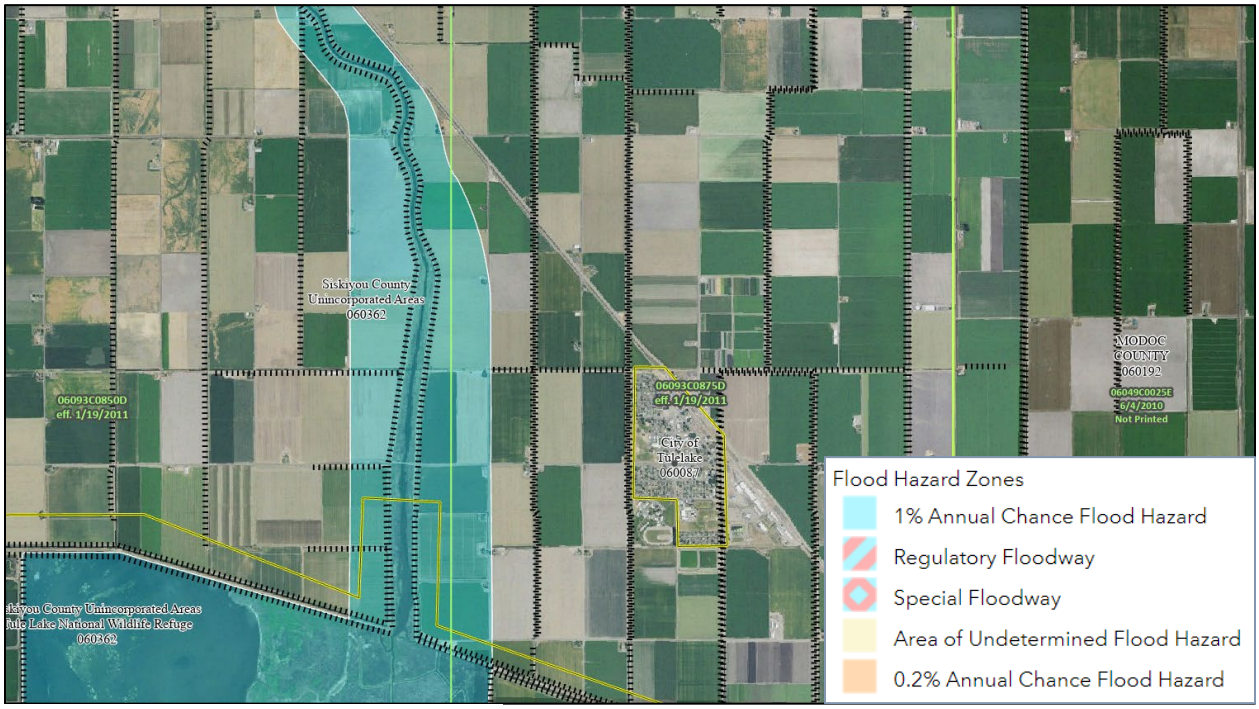


Mount Shasta, CA

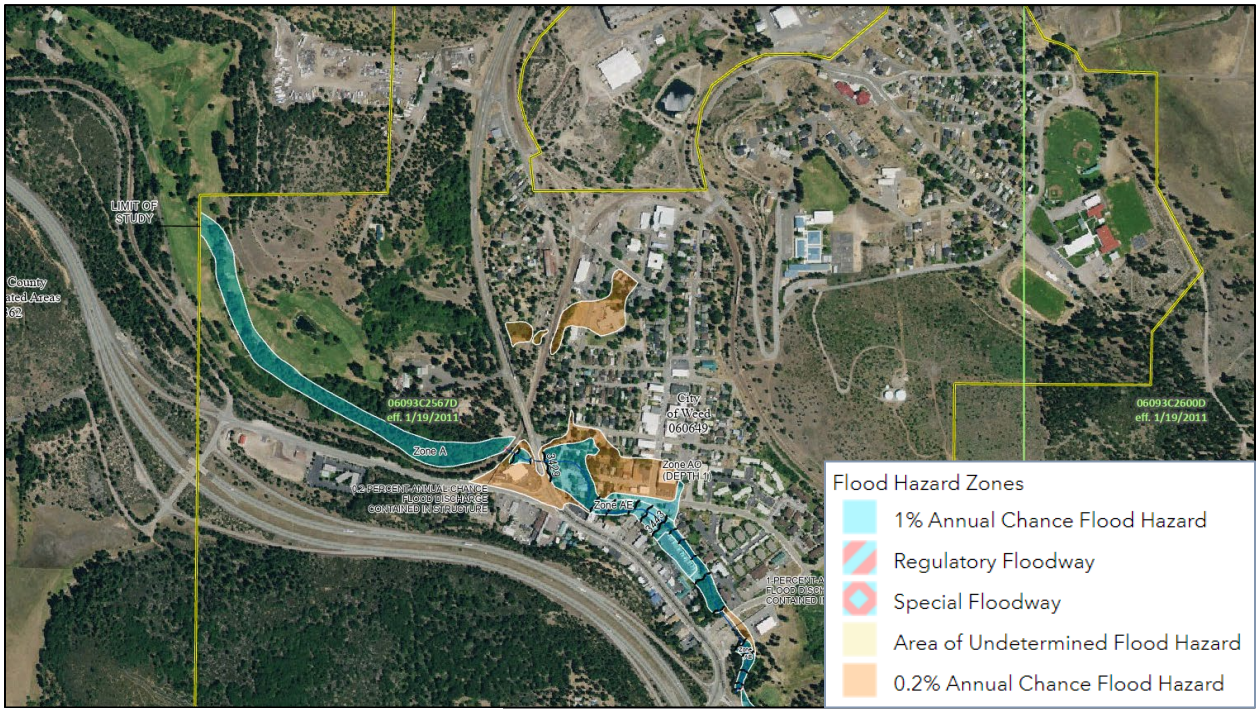


Quartz Valley, CA

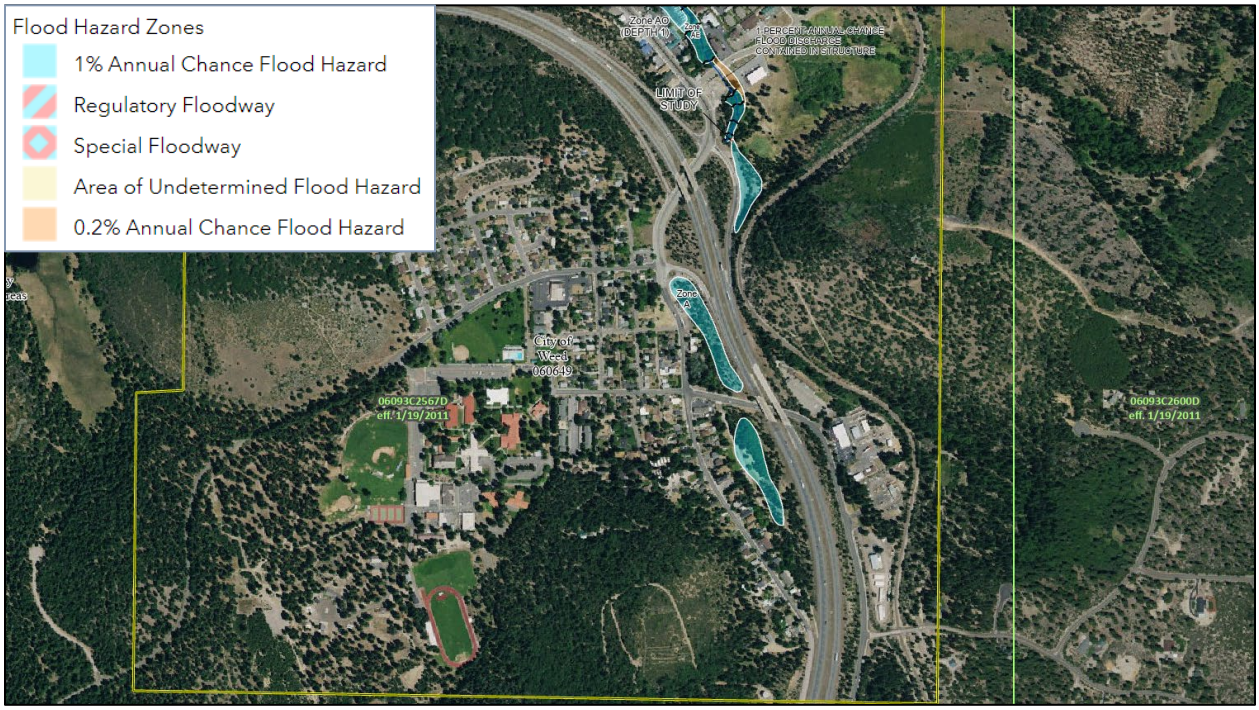
Appendix D – FEMA Flood Maps



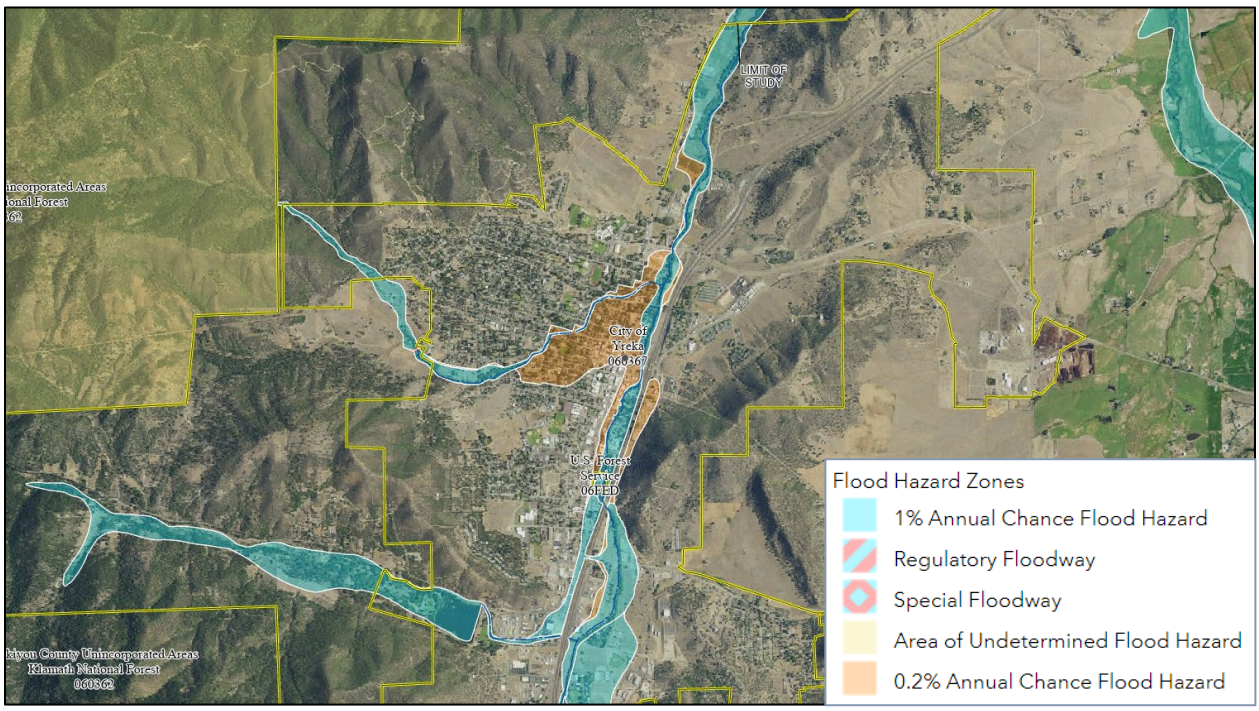
Tulelake, CA



Weed, CA



South Weed, CA



Yreka, CA

Appendix E
Residential Developments without Two Evacuation Routes

This listing is updated regularly. For the most recent version, please email planning@co.siskiyou.ca.us.

No.	Area	Description	Latitude	Longitude
1	Dunsmuir	All residential developments north of the 4th Street & Hilltop Drive intersection.	41°12'09.4"N	122°16'12.1"W
2	Dunsmuir	All residential developments south of the Katherine Street & S. Francis Street intersection.	41°18'51.9"N	122°17'01.4"W
3	Dunsmuir	All residential developments south of the Dunsmuir Avenue/Elizabeth Street intersection.	41°11'46.8"N	122°16'50.3"W
4	Dunsmuir	All residential developments north of the Bush Street & Mountain Avenue intersection.	41°12'29.6"N	122°16'11.7"W
5	Dunsmuir	All residential developments east of the River Avenue & Upper River Avenue intersection.	41°12'29.6"N	122°16'11.7"W
6	Dunsmuir	All residential developments north of the Linda Place & Dunsmuir Avenue intersection.	41°14'07.7"N	122°16'18.3"W
7	Dunsmuir	All residential developments on Pinewood Road, starting at the corner of Prospect Avenue.	41°14'05.0"N	122°16'31.5"W
8	Dunsmuir	All residential developments north of the Wells Avenue & Hart Avenue Intersection.	41°13'52.5"N	122°16'39.8"W
9	Dunsmuir	All residential developments north on Scarlet Way, commencing at the Dunsmuir Avenue intersection.	41°13'42.4"N	122°16'33.1"W

10	Dunsmuir	All residential developments north on Shasta Terrace, commencing at the Willow Street intersection.	41°12'42.8"N	122°16'31.2"W

No.	Area	Description	Latitude	Longitude
11	Etna	All residential developments east on Esther Warren Road, starting at the Sawyers Bar Road intersection.	41°26'33.8"N	122°54'09.4"W
12	Etna	All residential developments west on unnamed road, starting at 1389 Sawyers Bar Road.	41°26'48.4"N	122°54'02.2"W
13	Etna	All residential developments south on Pleasure Park Road, starting at the Callahan Street intersection.	41°27'21.2"N	122°53'19.7"W
11	Mount Shasta	All residential developments north of the Lotus Lane & Shasta Acres Road Intersection.	41°18'51.9"N	122°17'01.4"W
11	Mount Shasta	All residential developments north of the Lotus Lane & Shasta Acres Road Intersection.	41°18'51.9"N	122°17'01.4"W
	Scott Valley	All residential developments east of the Eastside Road & Hurds Gulch Road Intersection.	41°12'09.4"N	122°16'12.1"W
	Scott Valley	All residential developments south on Azalea Drive, starting at the French Creek Road intersection.	41°21'23.2"N	122°54'03.4"W
	Scott Valley	All residential developments north on French Creek Court, starting at the French Creek Road intersection.	41°21'29.3"N	122°54'07.1"W
	Scott Valley	All residential developments east on Facey Bingham Road, starting at the East Callahan Road intersection.	41°22'28.8"N	122°49'20.5"W

Appendix E – Residential Developments Lacking Two Evacuation Routes

Appendix F
Institutional and Regulatory Framework by Hazard

Fire Hazard
Institutional Framework

The U.S. Geological Survey has additional information about wildfire hazard areas in Siskiyou County on the agency's website at https://www.usgs.gov/fire-danger-forecast.

The Department of Forestry and Fire Protection (CAL FIRE) is the primary agency responsible for fighting wildfires within the state responsibility area. The department oversees enforcement of state forest protection regulations, implements fuel management projects, and participates in forest conservation and management.

Fire Safe Council of Siskiyou County is a coalition of community groups seeking wildfire prevention and mitigation by mobilizing residents to protect their communities.

Siskiyou Prescribed Burn Association (SPBA) includes landowners, tribes, and local organizations and agencies that work together to safely conduct prescribed burns as a fire hazard mitigation tool.

Fire Hazard

Regulatory Framework

Public Resources Code 4290 includes minimum standards for development in the SRA that provides for emergency access, signage and building numbering, private water supply reserves for emergency fire use, and vegetation modification.

Public Resources Code 4291 requires property owners in mountainous areas, forest covered lands, or any land that is covered with flammable material to create at a minimum a 100-foot defensible space (or to the property line) around their homes and other structures.

California State Building Code requires minimum standards for new buildings in fire hazard severity zones. Most housing in the county was built prior to this code requirement (Pre 1991). Any proposed development in the VHFHSZ must comply with state and county requirements for building standards, vegetation management, points of egress, and other measures.

California Fire Code establishes regulations regarding fire safety and fire prevention in buildings and structures throughout the state. Under the Fire Code, all portions of a building shall be within 150 feet of a serviceable fire access road. Fire apparatus access roads shall be all weather roads with a minimum width of 20 feet. The Fire Code requires buildings and structures within areas designated as a VHFHSZ to maintain defensible space.

Flood Hazard

Institutional Framework

California Department of Water Resources developed the Flood Emergency Response Information Exchange to improve flood emergency preparedness, response, and recovery. The Department also implements the Sustainable Groundwater Management Act and administers the California Statewide Groundwater Elevation Monitoring Program.

Division of Safety of Dams, a part of the California Department of Water Resources, provide oversight of the design, construction, and maintenance of over 1,200 dams in California.

North Coast Regional Water Quality Control Board (RWQCB) enforces waterway protection and pollution control regulations for most of the county. The North Coast RWQCB contains the majority of county's watersheds under its jurisdiction, except for the Sacramento River headwaters.

Central Valley Regional Water Quality Control Board (RWQCB) enforces waterway protection and pollution control regulations in the southeastern portion of the county. The Central Valley RWQCB has authority over waters used for irrigating the Central Valley, including much of the Sacramento River.

Geologic & Seismic Hazards

Institutional Framework

The California Geological Survey provides scientific products and services about the state's geology, seismicity, forests and watersheds, and mineral resources that affect the health, safety, and business interests of the people of California.

Geologic & Seismic Hazards

Regulatory Framework

The Alquist-Priolo Act was passed following the devastation of the San Fernando earthquake in 1971 (*Magnitude 6.6*). This act established regulatory zones surrounding the surface traces of active faults so that a structure for human occupancy cannot be placed or built on active faults with potential for surface rupture and must be sited at a minimum distance from the fault.

The Seismic Hazards Mapping Act (SHMA) directs the California Geological Survey to identify and map areas prone to earthquake hazards.

Hazardous Materials

Institutional Framework

The U.S. Environmental Protection Agency (EPA) tracks six common air pollutants, called "*criteria air pollutants*" that are found all over the U.S. and have been shown to harm human and environmental health as well as cause property damage. These include ground-level ozone, particulate matter, carbon monoxide (CO), lead, sulfur dioxide (SO2), and nitrogen dioxide (NO2).

California Air Resources Board (CARB) is a state agency that establishes emission standards for mobile air pollution sources in conjunction with federal agencies such as the EPA. CARB has developed programs to encourage cleaner cars and cleaner fuels such as California's cleaner-burning gasoline.

Department of Resources Recycling and Recovery (CalRecycle) is a department within the California Environmental Protection Agency that coordinates the state's recycling and waste management programs.

The Department of Toxic Substances Control (DTSC) tracks facilities that are authorized to handle hazardous waste such as federal Superfund and state Superfund sites, military facilities, voluntary cleanup sites, and school sites being evaluated for possible contamination.

The State Water Resources Control Board (SWRCB) regulates leaking underground storage tanks (LUSTs), Department of Defense facilities, the spills, leaks, investigations & cleanup (SLIC) Program, and landfills.

Hazardous Materials

Regulatory Framework

The Resource Conservation and Recovery Act (RCRA) is a federal law that gives the Environmental Protection Agency (EPA) the authority to manage hazardous waste from "start to finish". This means the EPA controls the generation, transportation, treatment, storage, and disposal of hazardous waste. In 1992, California DTSC received authorization from the EPA to oversee and implement the federal RCRA within the state.

Evacuation Planning

Regulatory Framework

Government Code §65302 (Senate Bill 99) states that the county to identify residential developments that do not have at least two emergency evacuation routes.

Government Code §65302.15 (Assembly Bill 747) states that the county must identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios as well as identifying evacuation locations. The Safety Element may incorporate reference material from the LHMP to comply with this law. Assembly Bill 747 is triggered when the LHMP is updated.

Appendix G
2025 Local Hazard Mitigation Plan

INCORPORATION

In compliance with AB 2140 (2006), the 2025 Siskiyou County Local Hazard Mitigation Plan (LHMP) is herein incorporated and made a part of the 2025 Safety Element of the Siskiyou County General Plan.

2025 LOCAL HAZARD MITIGATION PLAN

The 2025 Local Hazard Mitigation Plan (LHMP) for the Siskiyou County planning area was developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and followed FEMA's Local Hazard Mitigation Plan guidance. The LHMP incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short and long-term strategies, involve planning, policy changes, programs, projects, and other activities.

To view the 2025 LHMP in its entirety please visit:
https://www.siskiyoucounty.gov/emergencyservices/page/local-hazard-mitigation-plan