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PLANNING COMMISSION MEETING

September 6, 2022

Update of the Safety Element of the Lassen County General Plan (File 702.02)

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TO: Planning Commission
Agenda Date: September 6, 2022

FROM: Maurice L. Anderson, Director

SUBJECT: Make a recommendation to the Lassen County Board of Supervisors regarding a proposed update of the Safety Element of the Lassen County General Plan

Summary:

The purpose of this meeting is to allow the public to comment and the Planning Commission to make a recommendation to the Board of Supervisor on the attached draft Safety Element.

The Safety Element of the Lassen County General Plan was adopted in 1974 through Resolution No. 2552, as Exhibit “B.” The title of Exhibit “B” is the “Safety and Seismic Safety Element.” The current Hazard Mitigation Plan was incorporated by reference into the element on June 16, 2020, but the element itself has not been updated since 1974. The current Lassen County Hazard Mitigation plan can be viewed at the following URL:

<http://www.lassencounty.org/government/resources/planning-and-building-services>

Through adoption of Resolution 20-028 (attached), the Board of Supervisors concurred with the Board of Forestry and Fire Protection’s April 17, 2020, determination, that the current element does not comply with subsection “(g)” of section 65302 of the Government Code and requires updating. Said subsection (attached) establishes the requirements for safety elements.

Safety Element Requirement:

The following description of a safety element is provided in the State of California General Plan Guidelines:

The goal of the safety element is to reduce the potential short and long-term risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues, such as airport land use, emergency response, hazardous materials spills, and crime reduction, may also be included. Some local jurisdictions have chosen to incorporate their hazardous waste management plans into their safety elements.

The safety element directly relates to topics also mandated in the (1) land use, (2) conservation, (3) environmental justice and (4) open-space elements, as development plans must adequately account for public safety considerations and open space for public health and ecological benefits often incorporate areas of increased hazard risk. The safety element must identify hazards and hazard abatement provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The safety element should also contain general hazard and risk reduction strategies complementary with those of the Local Hazard Mitigation Plan (LHMP). Ideally, the LHMP will be incorporated into the safety element as outlined below in accordance with provision of Assembly Bill 2140, General Plans: Safety Element (Hancock, 2006)(Gov. Code § 65302.6).

The recent introduction of climate risk to the discussion of the safety element, adds a focus on longer term preparation of a community for a changing climate. Policies in a safety element should identify hazards and emergency response priorities, as well as mitigation through avoidance of hazards by new projects and reduction of risk in developed areas. As California confronts mounting climate change impacts, local governments are now required, in accordance with Senate Bill 379, Land Use: General Plan: Safety Element (Jackson, 2015) to include a climate change vulnerability assessment, measures to address vulnerabilities, and comprehensive hazard mitigation and emergency response strategy as explained further in this section.

Again, subsection “(g)” of section 65302 of the Government Code, describing the specific requirements of a safety element, is attached, as is the safety element chapter of the State General Plan Guidelines.

Adoption Process:

The attached draft Safety Element has been prepared after significant outreach to the Fire Warden, California Department of Forestry and Fire Protection, fire protection districts, Sheriff, Public Works, County Emergency Services and others. The public was also invited to participate in a virtual public workshop held in May of 2021. The workshop was recorded and posted online. Further public comments can be submitted when the formal public comment period is active in the future.

Once the Board of Supervisors receives recommendations from the Planning Commission, it will consider release of the public draft of the Safety Element for public comment and formal submittal of the draft to the Board of Forestry and Fire Protection, the California Geological Survey, applicable Fire Protection Districts, California Native American Tribes and others, in accordance with Government Code Sections 65302.5, 65352.3 and 65352.4 (all attached). The Board of Forestry and Fire Protection’s Resource Protection Committee must review the Safety Element and has the ability to make recommendations for changes. If changes are recommended, the Board of Supervisors must either accept the recommended changes or respond to the Resource Protection Committee with why changes were not accepted.

Once all of the above has been completed and appropriate revisions (if any) have been made, the Board of Supervisors will consider adoption of the Safety Element at a future, yet to be determined, date.

Environmental Review:

The California Environmental Quality Act (CEQA) requires that public agencies identify the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant impacts when feasible, as described in California Public Resources Code, Sections 21000-21177. A Draft Initial Study/Negative Declaration (Draft IS/ND) has been prepared pursuant to CEQA. The Draft IS/ND analyzes and discloses any potential impacts of the proposed project and has concluded that the proposed project would result in less-than-significant impacts or no impacts for all environmental issue categories.

Alongside the release of the public draft of the Safety Element, the Board of Supervisors will also consider the release of the Draft IS/ND for public review and comment. Upon release of the Draft IS/ND for public review and comment, members of the public will be able to submit formal comments regarding the adequacy of the Draft IS/ND. The public review period will last a minimum of 30 days.

Environmental Justice Element:

In 2016, the California legislature passed Senate Bill 1000 (SB1000). SB1000 amended Government Code Section 65302 to require cities and counties with disadvantaged communities, as defined in the context of environmental justice, to incorporate environment justice policies into their general plans, either through a separate environmental justice element or by integrating goals, policies, and objectives throughout the existing general plan. CalEnviroScreen is the Cal EPA Office of Environmental Health Hazard Assessment (OEHHA) tool used to identify disadvantaged communities in California. This tool compiles various environmental and socio-economic factors into a composite score representing a given census tract's level of disadvantage compared to the rest of the state. According to the most recent version of CalEnviroScreen (CalEnviroScreen 4.0, dated October 20th, 2021), Lassen County does not contain any census tracts considered disadvantaged communities, meaning an environmental justice element is not required for Lassen County.

MLA:gfn

Enclosures:

1. Draft Safety Element Update
2. Draft Negative Declaration and supporting Initial Study
3. 1974 Lassen County Safety Element and Board Resolution 2020-028, incorporating the Hazard Mitigation Plan into the Safety Element
4. California General Plan Guidelines, Chapter 4, safety elements
5. California Government Code Sections 65302, 65302.5, 65352.3, and 65352.4

COUNTY OF LASSEN

Safety Element

AUGUST 2022

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1. Introduction

This Safety Element addresses natural and human-caused hazards in Lassen County, and the potential short- and long-term risk to human life, property damage, and economic and social dislocation resulting from hazard events, including earthquakes, energy shortages and outages, extreme heat, flooding, and wildfire. This is one of seven General Plan Elements required by State law (Government Code 65302). Because climate change affects and potentially exacerbates the impact of hazards, this Safety Element also addresses climate change within each hazard section, in accordance with Senate Bill 379 and as applicable.

This Safety Element is organized to first describe each hazard impacting Lassen County followed by a section describing the hazards impacting each of the County of Lassen's (County) unincorporated communities.¹ For each community, this Safety Element describes each hazard, and identifies **critical assets**, **vulnerable populations**, evacuation routes, and key issues. Finally, a Goals, Policies, and Actions section provides the County's safety roadmap to 2040, including a comprehensive hazard mitigation and emergency response strategy. Goals, policies, and actions are organized by four planning phases to comprehensively enhance the County's resilience: mitigate, prepare, respond, and adapt.

While there are multiple hazards this Safety Element does not analyze, **this Safety Element incorporates and augments the analysis and policies contained in the Lassen Hazard Mitigation Plan (LHMP)**. The LHMP for the County of Lassen 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. LHMP's are consistently updated, but the most recent LHMP as of January 2019 can be found here:

http://www.lassencounty.org/sites/default/files/departments/office_of_emergency_services/Lassen%20County%20LHMP%20approved_1%2015%202019.pdf

This Safety Element directly relates to topics in the Land Use, Circulation, Natural Resources, and Open Space Elements of the General Plan. The Safety Element identifies hazards and hazard abatement provisions to guide land use decisions related to zoning, subdivisions, and entitlement permits. The Safety Element also addresses emergency response and evacuation routes, which informs the Circulation Element to ensure that streets are sized adequately for fire truck access and other needs of first responders. The Safety Element also addresses how to manage resource use, including community forests to mitigate hazard events, which correlate with the Natural Resources and Open Space Elements.

CRITICAL ASSETS

Critical assets are pieces of infrastructure that are important to the regular functioning and emergency responses services for a community. These can include roads, first responder facilities, and other community buildings.

VULNERABLE POPULATIONS

Vulnerable populations are groups of people likely to be affected by hazards because they need assistance evacuating, have special medical needs, or may have a more difficult time rebuilding or otherwise recovering from a hazard.

¹ Communities were identified by the U.S. Census Bureau and County staff to represent established communities that plan and respond to hazard events through volunteer community fire departments, community service districts, or other resident organization.

HAZARDS IN LASSEN COUNTY

Earthquakes and Geologic Hazards

Earthquakes are sudden ground-shaking events caused by the release of pressure in the earth. This quick release of pressure poses a safety risk to both people and structures due to the unpredictability of magnitude and timing. Earthquakes can occur without warning. There are no U.S. Geological Survey–approved methods of predicting a major earthquake before the event occurs, and therefore, earthquake events pose a major threat to structures and people. It is currently only possible to calculate the probability that a major earthquake event will occur in an area within a given number of years, making long-term earthquake forecasts unreliable and often incorrect.²

Active faults are identified by the U.S. Department of Conservation, and construction of new development is prohibited in areas around them to prevent repetitive loss of structures and threats to the safety of occupants. These unsafe areas around active faults, generally 50 feet, are regulatory zones referred to as **Alquist-Priolo earthquake fault zones**. Three communities (Milford, Herlong, and Doyle) in Lassen County have Alquist-Priolo zones (see **Figure 1-1, Earthquake Hazards in Lassen County**).

In addition to earthquakes, building on steep slopes, expansive soils, and other unstable areas can lead to structures at risk of damage from landslides or liquefaction.

Energy Shortages and Outages

Energy shortages and outages can impact various systems, including electricity, potable water, wastewater, natural gas, communications, and more. These shortages and outages can occur on their own, or be triggered by hazards like wildfires, floods, or severe weather. Shortages and outages can also be human induced. For example, during an extreme heat event, energy companies may conduct planned power outages to reduce wildfire risk, or shortages may occur if the community requires too much energy at any one time and overloads the distribution network.

The Lassen Municipal Utility District (LMUD), Plumas Sierra Rural Electric Cooperative (PSREC), PG&E, and Surprise Valley Electrification Corporation supply power to Lassen County.³ Pacific Gas & Electric (PG&E) provides LMUD with electricity through two PG&E-owned transmission lines. The Caribou line is the primary line and the Hat Creek line is the secondary line. The Hat Creek line is only used as a backup if the Caribou line were to go out; however, the use of the Hat Creek line would cause rolling blackouts across Lassen County. Honey Lake Power is another potential source of backup power for LMUD customers. This biomass electrical generation facility sells its power to San Diego Gas & Electric generally, but also sells power to LMUD when the PG&E transmission line goes down. In 2018 during the Camp Fire, Honey Lake Power was the only power

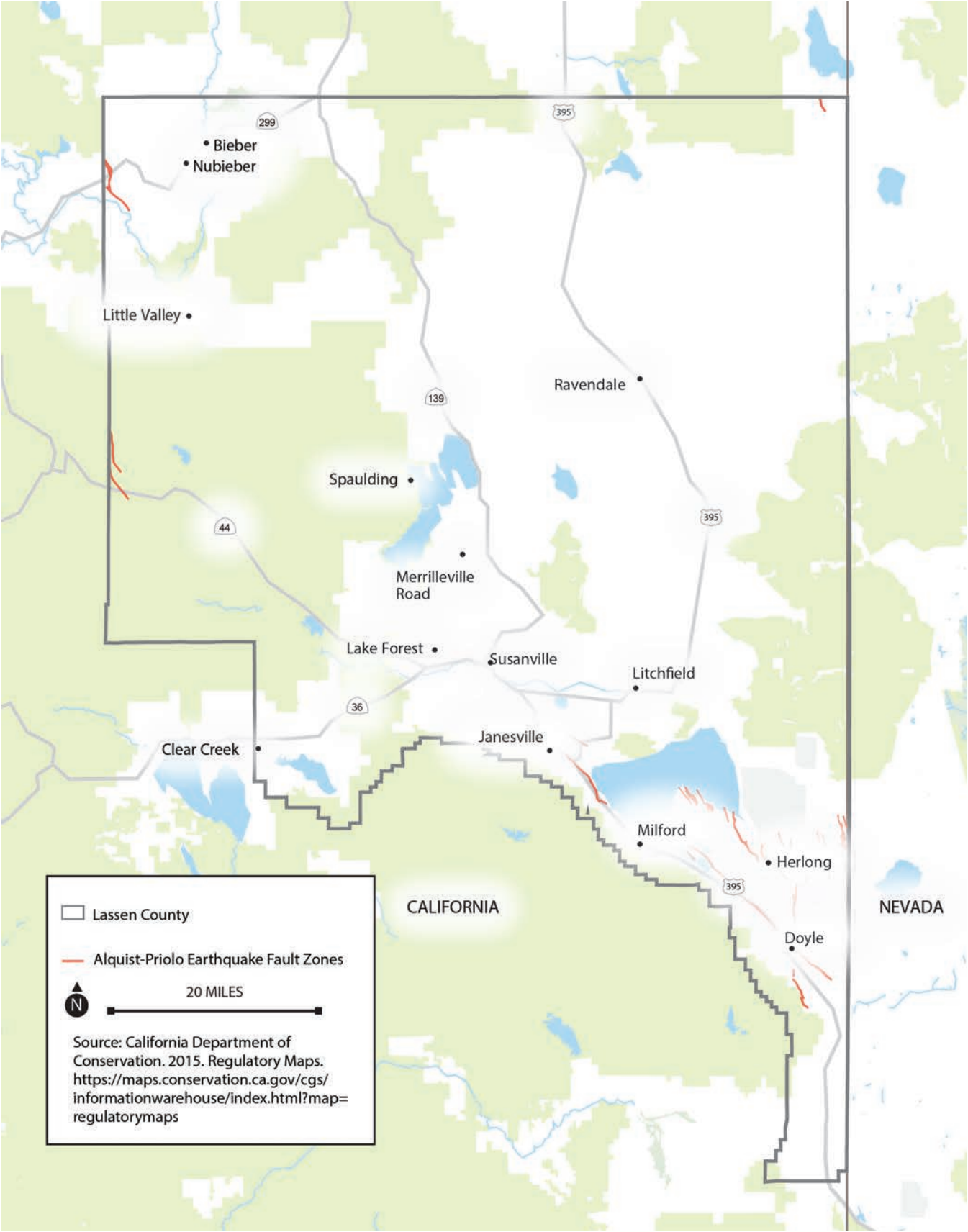
ALQUIST-PRIOLO EARTHQUAKE FAULT ZONES

The Alquist-Priolo Special Studies Zone Act (1994) defines an active fault as one that has ruptured in the last 11,000 years, and the act provides mapping resources for the public to strengthen awareness and prevent unsafe construction in these areas.

² USGS (U.S. Geological Survey). 2020. "Can You Predict Earthquakes?" Accessed July 16, 2020. <https://www.usgs.gov/faqs/can-you-predict-earthquakes?>

³ Lassen County, City of Susanville, and Susanville Indian Rancheria. 2019. Hazard Mitigation Plan. January 2019. http://www.lassencounty.org/sites/default/files/departments/office_of_emergency_services/Lassen%20County%20LHMP%20approved_1%2015%202019.pdf.

Figure 1-1. Earthquake Hazards in Lassen County



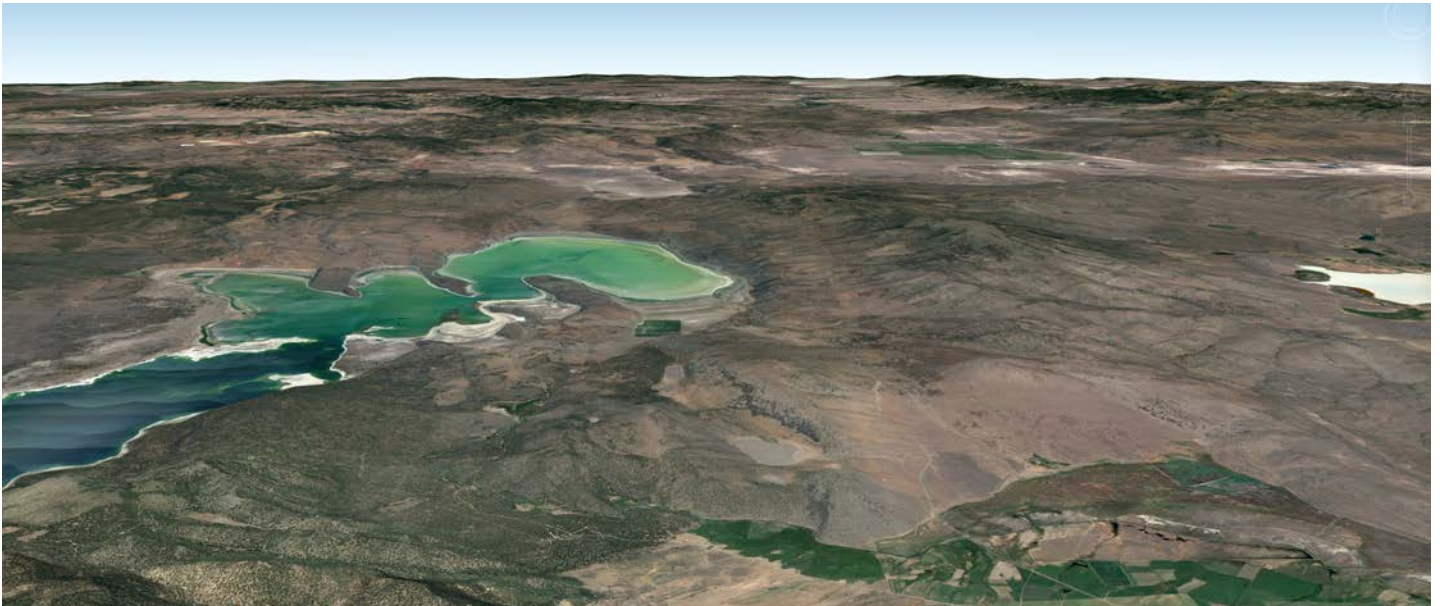
generator available and supported LMUD customers for 21 days.⁴ Furthermore, PSREC has a solar array located in Herlong which is available to provide backup power to PSREC customers.⁵

Climate change will impact energy demand. Energy-intensive equipment, such as air conditioning, could create significant spikes in energy demand at times. Climate change will also increase the frequency and intensity of many hazards, including more intense or frequent severe storms, flooding, and wildfires, which could cause transmission line failures.

Other factors may also pose threats to energy supply. For example, rockslides or other seismic hazards could cause issues and lead to unexpected outages. Public Safety Power Shutoffs (PSPS) are also possible. These are power shutoffs implemented when severe weather occurs. In the event of a potential PSPS, a PSPS outage watch notifies residents up to two days prior, followed by an outage warning one day prior. One area of special concern is the Feather River Canyon, just outside of the County. The transmission lines that serve the County are connected there, but the County has no jurisdiction over this area. County coordination with PG&E is important for the continued operation and maintenance in this key area.

Communications Outages

The County and its community members rely on various data networks and infrastructure to conduct regular activities and emergency response. Hazards like fires or earthquakes can impact this communication infrastructure and create larger cascading impacts related to emergency response, evacuations, and more. Applicable communications infrastructure and their uses are outlined on **Table 1-1**.



4 Greenleaf Power. 2021. "Honey Lake Power." <https://greenleaf-power.com/honey-lake/>

5 Plumas-Sierra Rural Electric Co-Op. 2020. "Community Solar." <https://www.psrec.coop/energy/solar/>

INTRODUCTION

Table 1-1. Communications Infrastructure

Communications Infrastructure		Uses and Users	Issues or Needs
Sheriff Radio		This is the dispatch, car-to-car, and handheld radios used by County and City of Susanville law enforcement units.	See Mountain Tops for Detailed Information.
Public Safety Radio Network	Shaffer Mountain	Mountain top repeater site used by Sheriff's Office. Primary radio communications for Sheriff Radio.	Supplemental batteries, inverter, solar, and generator power are needed improvements.
	Courthouse Annex	Serves as a direct link between Shaffer Mountain and the Susanville Repeater. Also is home to an untested backup IP radio system.	Physical keys and the alarm code are needed off hours to access the facility. The backup IP radio system needs testing to determine capacity.
	Hamilton Mountain	Mountain top repeater site used by Sheriff's Office. Brings signal to Sheriff's Office from partner agency.	This site is state-owned with county equipment co-located on it, which presents challenges. The county-owned infrastructure lacks back-up power and structural integrity.
	Little Antelope Mountain	Mountain top repeater site used by Sheriff's Office. Has IP network connections to three sites.	Site requires lease from USDA.
	Black Mountain	Mountain top repeater site used by Sheriff's Office. Has an IP connection to Shaffer Mountain and the Jail Annex.	Needs a base station.
	Jail Annex	Received Public Safety Radio signals from Black Mountain via converted IP signal to Dispatch consoles. This site offers easy access to send and receive signals via the IP Radio network to Little Antelope Mountain and Black Mountain.	None
	Fredonyer Peak	Mountain top repeater site used by Sheriff's Office.	None
	Likely Mtn	Mountain top repeater site used by Sheriff's Office.	Shared with Modoc County.
	Widow Mountain	Mountain top repeater site used by Sheriff's Office.	None
	West Prospect	Mountain top repeater site used by Sheriff's Office.	Shared with Modoc and Plumas County
Leased Private Fiber		This is fiber owned by private telecommunications companies. The public utilize this system.	Need redundancies to prevent community islanding.
Outlying Area Fiber		Leased point-to-point fiber with Westwood, Bieber, and Herlong.	None
County-Owned Fiber		Fiber owned by the County which transmits between County facilities or leased locations.	None
IP Radio		A back-up radio system for the Courthouse campus and Sheriff's Office. Used if an outage occurs on the leased private fiber hub.	None
GSM or CDMA		Phones, routes, tablets and other devices connected by cellular data use this.	None
Frontier PRI		The database of phone numbers needed to have long distance calls.	This system has a single connection and has failed several times in recent years. A phone system augmentation is needed to remediate reliance on this single network connection.
Frontier Internet		This is a connection to the internet via Redding, CA. This connection carries Verizon, AT&T, US Cellular, and Frontier Communications (home phones).	This has suffered extended outages, and creates extensive impacts to County community members when it's down.
Plumas-Sierra Telecom Internet		This is another connection to the Internet via Reno, NV.	None

Source: County of Lassen, 2022.

Extreme Heat

Extreme heat events are hot days, warm nights, or heat waves that can result in heat-related illness and hospitalization. Extreme heat is measured locally as communities are acclimatized to their historic environment. An extreme heat day is one that is in the hottest 2% of days observed between 1960 and 1990. In Lassen County, an extreme heat event is a day above 92°F.⁶

Extreme heat occurs in the summer in Lassen County. Climate change is expected to increase the average temperature year-round, including the frequency of extreme heat days. Historically, Lassen County had four extreme heat days per year and is projected to experience 19 extreme heat days a year by 2050.⁷ Historically, heat waves last 2.8 days and are projected to increase to 8.2 days between 2020 and 2050.

Flooding

Flooding is caused by increased rain, causing rivers and urban drainage basins to fill and overflow. Increased flooding occurs when rain occurs over a shorter time period, even if there is less overall rain, because the soil does not have enough time to absorb the rainfall. Flooding occurs in low-lying areas near lakes and other waterways. Generally, the floodplain most often refers to the area that would be inundated by a 100-year flood, or the flood that has a 1% chance of occurring in any year.⁸ To further illustrate, a property in the floodplain has a 26% chance of being flooded at least once over the course of a 30-year mortgage. Due to this high risk, property owners in the 100-year flood plain are required by Federal Emergency Management Agency (FEMA) to purchase flood insurance. The 500-year floodplain is the area that has a 0.2% chance of being flooded on annual basis. Flood insurance is not required in the 500-year flood zone. Flooding occurs in the winter months when Lassen County receives the most rain. Climate change is predicted to increase the number of extreme rain events, when large amounts of rain fall over a short period of time, which does not allow it to infiltrate into the ground. Additional factors that have impacted flooding in Lassen County include snowpack melt, natural and manmade chokepoints in drainages, and ice jams. There are floodplains throughout Lassen County where common flooding occurs (see **Figure 1-2, Flood Zones in Lassen County**). In addition to regular flooding from precipitation, dam failures can cause a form of flooding called dam inundation. Only specific communities are downstream from dams in Lassen County. As such, further information on dam inundation in the County can be found in the Community Profiles.

Wildfire

Wildfires are most commonly caused by two sources: humans (through the use of electrical equipment and vehicles), or lightning. They are known to spread more quickly on dry, windy days and move more easily in an uphill direction and in areas with higher-density vegetation, which can be impacted by vegetation or timber management. Wildfires are a natural and important part of the ecosystem, but can become more intense and dangerous as a result of climate change and inadequate land management. Climate change is likely to increase the number of large fires in the region, which are more difficult to control and can pose serious threats to rural communities with limited evacuation routes. When analyzing wildfire risks, State law requires

6 Cal-Adapt. 2020. "Extreme Heat Days & Warm Nights." Accessed January 1, 2021. <https://cal-adapt.org/tools/extreme-heat/>.

7 Cal-Adapt. 2020. "Extreme Heat Days & Warm Nights." Accessed January 1, 2021. <https://cal-adapt.org/tools/extreme-heat/>.

8 USGS (U.S. Geological Survey). 2020. "Floods and Recurrence Intervals."

Figure 1-2. Flood Zones in Lassen County

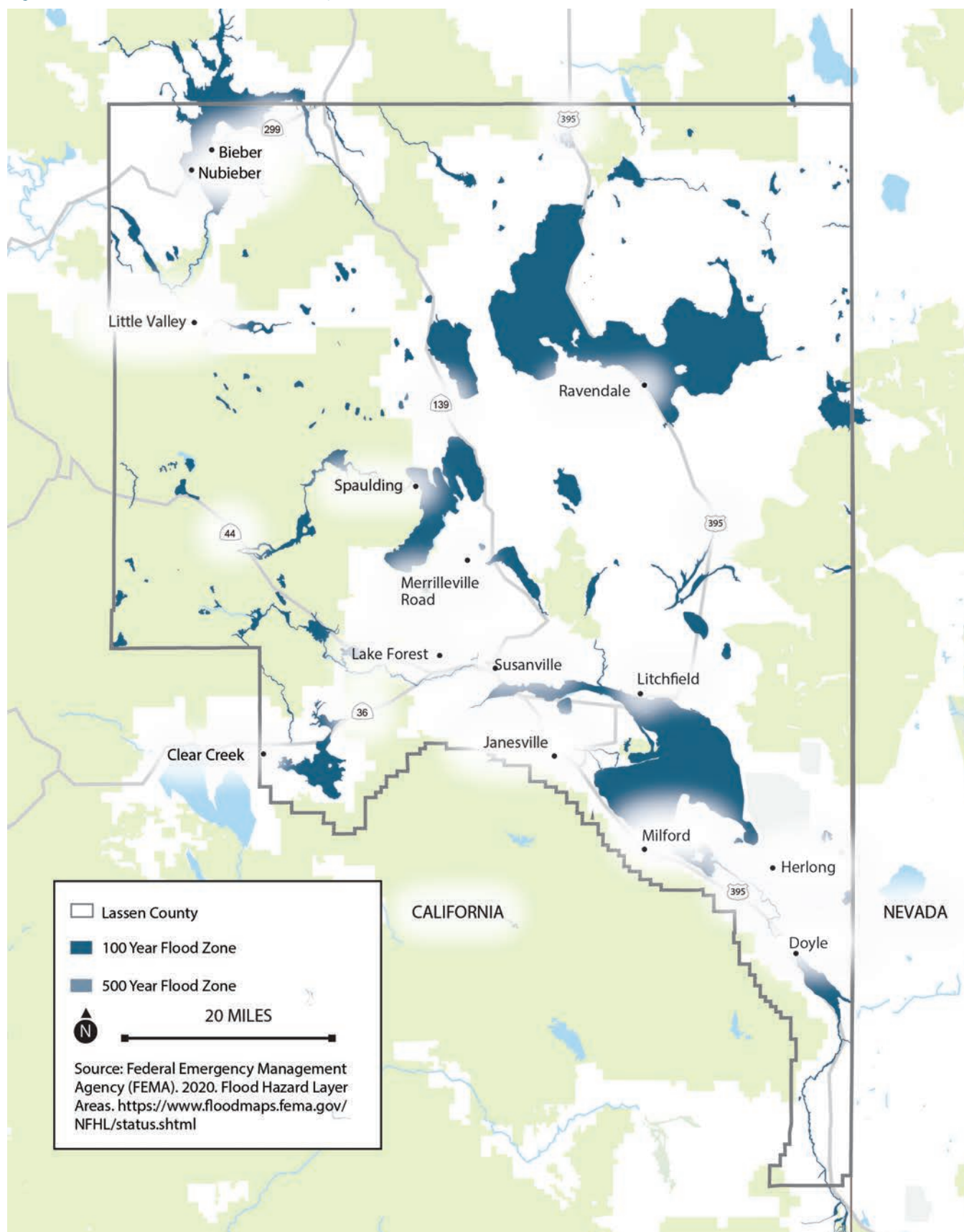


Figure 1-3. Wildfire Hazard Severity Zones in Lassen County

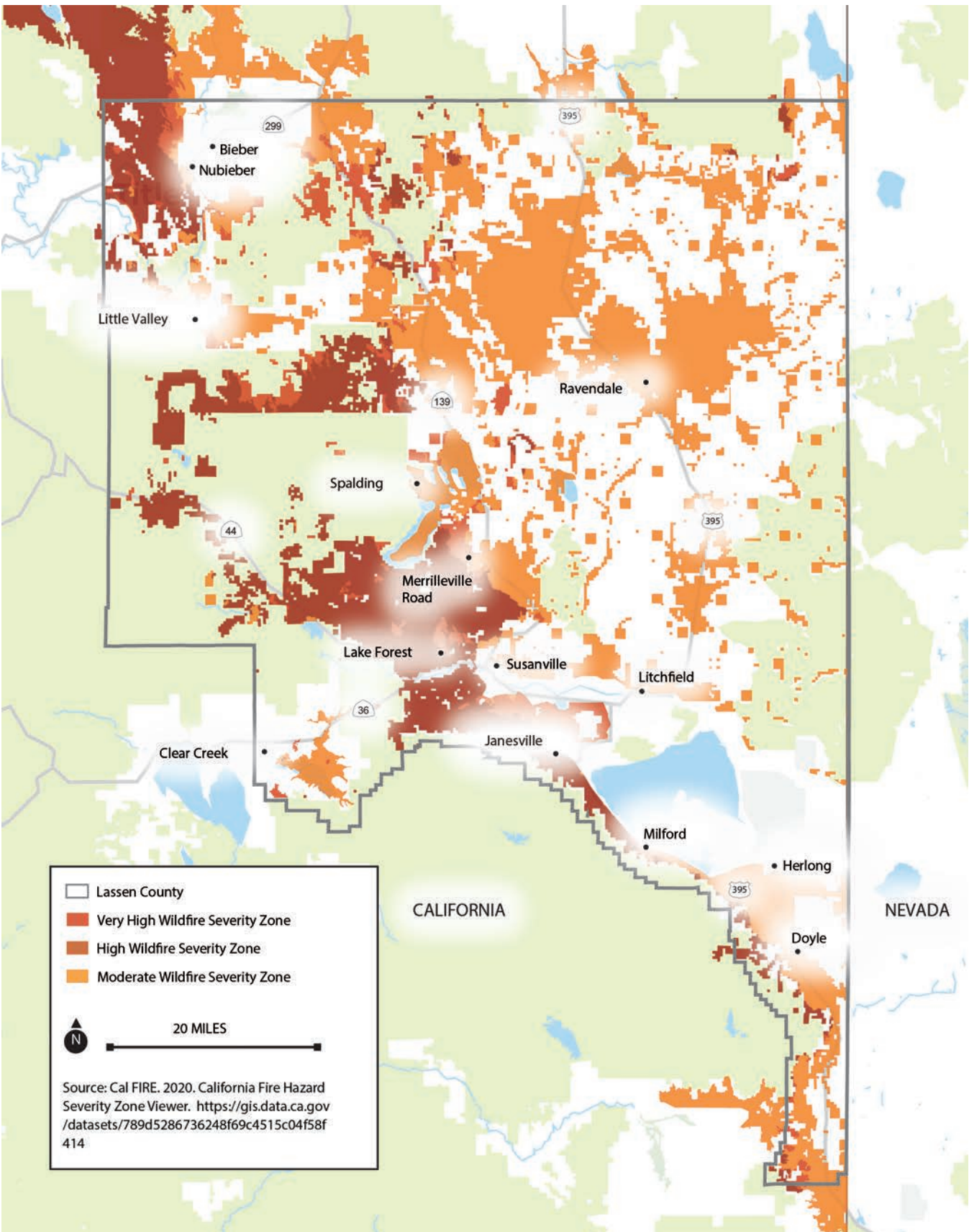


Figure 1-4. Historic Wildfires in Lassen County

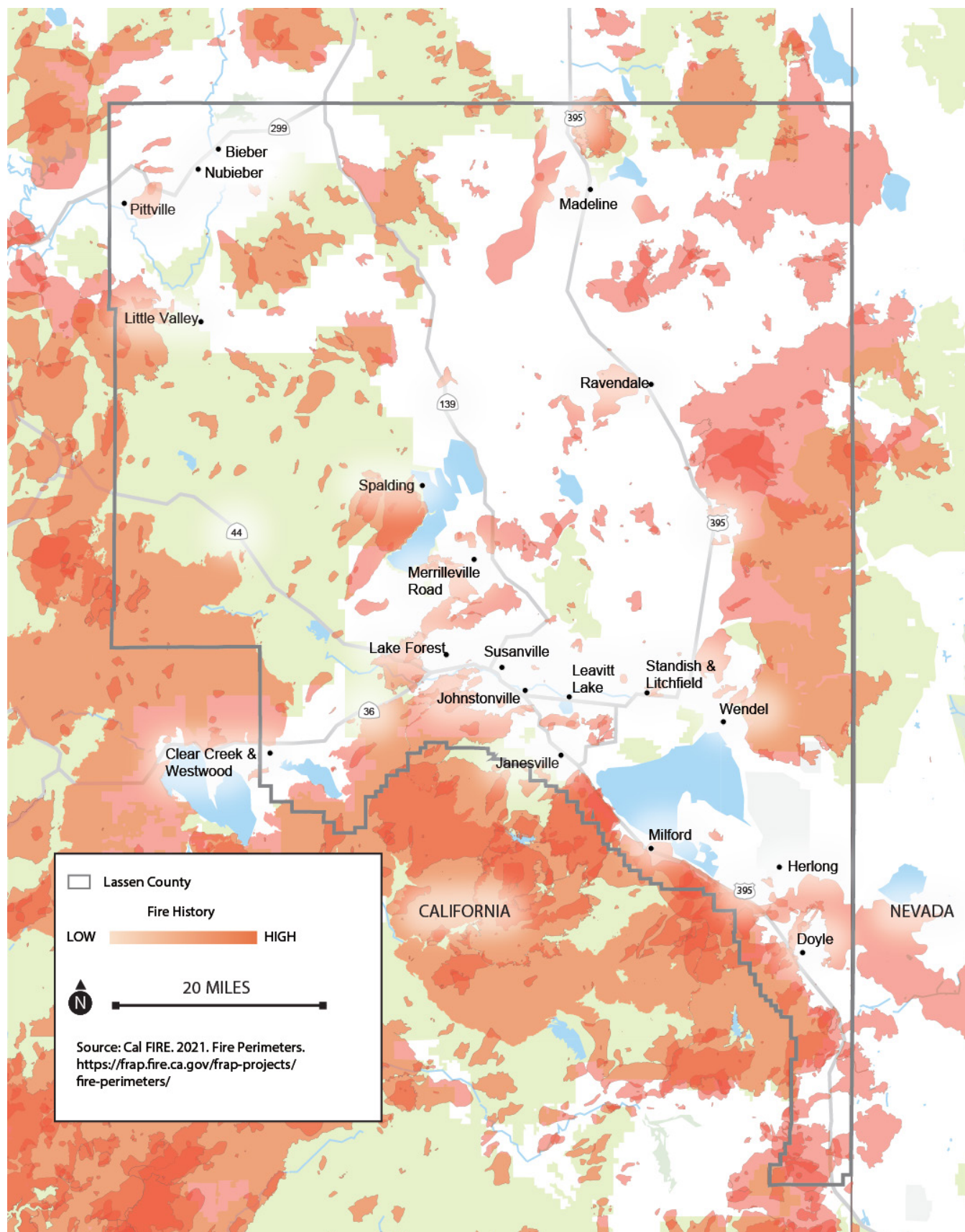
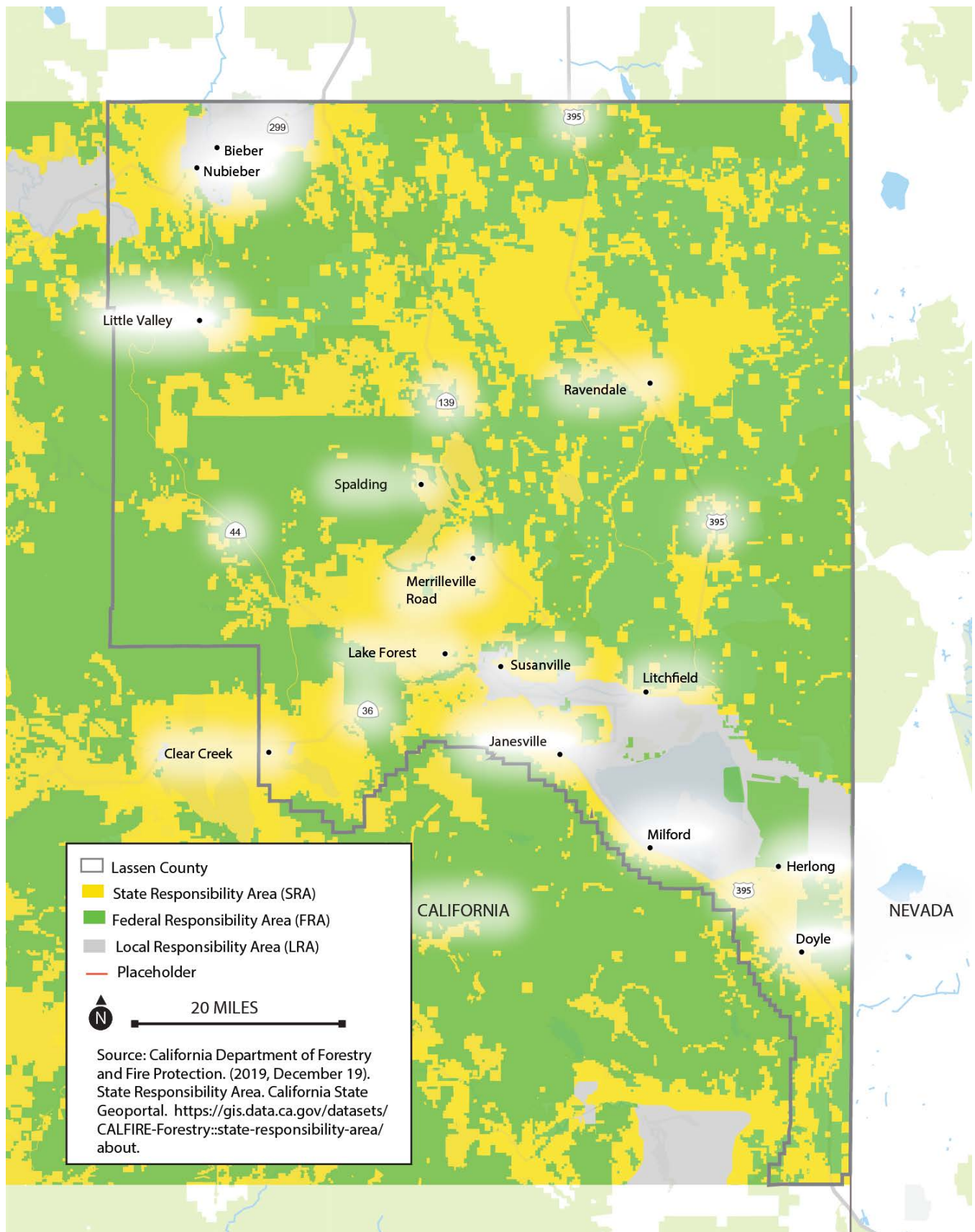


Figure 1-5. Fire Protection Responsibility

the identification of critical assets, developed areas, and planned uses in **Very High Wildfire Hazard Severity Zones (VHWFSZs)** and **State Responsibility Areas (SRAs)** (see **Figure 1-3, Wildfire Hazard Severity Zones in Lassen County**). Wildfire severity zones serve to prioritize the most at-risk areas and outline the policies in areas where the State is financially responsible for wildfire. In addition to mapping VHWFSZs and SRAs, State law requires that historical wildfires are mapped to provide a historical context (see **Figure 1-4, Historic Wildfires in Lassen County**). Depending on the location of the fire, local, state, or federal firefighting agencies can hold jurisdiction. The majority of Lassen County is covered by state and federal jurisdiction, but some subsets of the County are covered by local fire departments (see **Figure 1-5, Fire Protection Responsibility**). There are also response capabilities by other organizations such as the Sierra Army Depot in Herlong and the California Department of Corrections & Rehabilitation at the California Correctional Center in Susanville. The Susanville Interagency Fire Center (SIFC) acts as a dispatching center that is able to coordinate with the various responders. In addition, certain communities in Lassen County have their own recognized fire districts with various levels of full time and volunteer fire fighters.

The Lassen County Fire Protection Districts are listed here:

- Big Valley Fire Protection District
- Clear Creek Community Services District
- Doyle Fire Department
- Herlong Fire Department
- Janesville Fire Department
- Lake Forest Fire Department
- Little Valley Community Service District
- Madeline Fire Department
- Milford Fire Department
- Spalding Fire Department
- Standish-Litchfield Fire Department
- Stones Bengard Community Services District
- Susan River Fire Protection District
- Susanville City Fire Department
- Westwood Fire Department
- Hallelujah Junction Fire Protection District

These fire districts are discussed in the subsequent Community Profiles for applicable communities, and further information about Lassen County’s local fire districts can be seen on Lassen County’s LAFCo website.⁹ Additional fire protection services are not anticipated, as the County is projected to experience slow declines in population through 2060.¹⁰ As populations decline, obtaining adequate funding and finding volunteers for fire departments may become larger issues.

VERY HIGH WILDFIRE HAZARD SEVERITY ZONES (VHWFSZS)

Very High Wildfire Hazard Severity Zones are those most at risk. Inclusion within these zones is based on vegetation density, slope severity and other relevant factors that contribute to fire severity.

STATE RESPONSIBILITY AREAS (SRAS)

The State Responsibility Area (SRA) is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. SRA does not include lands within city boundaries or in federal ownership.

⁹ Lassen County LAFCo. (2020). *Fire Protection Districts*. Retrieved October 8, 2021, from https://www.lassenlafco.org/uploads/1/1/4/5/11454087/a_lassen_fire-msr-soi_2020_d5_w_maps.pdf.

¹⁰ California Department of Finance. (2021). *County Population Projections 2010-2060*. Projections. Retrieved October 20, 2021, from <https://www.dof.ca.gov/Forecasting/Demographics/Projections/>.

Separate from fire protection are fire mitigation and preparedness activities. Depending on property ownership and other factors, various parties can contribute to the implementation of mitigation and preparedness activities. Wildfire Protection Plans act as a way to organize fire mitigation and preparedness projects. Lassen County's Wildfire Protection Plan is developed by Lassen Fire Safe Council, Inc., and more specific Community Wildfire Protection Plans have been developed for communities within Lassen County. These plans are listed below and can be found at the Lassen Fire Safe Council, Inc's website (<https://www.lassenfiresafecouncil.org>):

- Lassen County Community Wildfire Protection Plan
- Standish Litchfield CWPP
- Richmond Gold Run Johnstonville CWPP
- Ravendale Termo CWPP
- Pittville CWPP
- Madeline CWPP
- Herlong CWPP
- Doyle CWPP
- Bieber-Nubieber CWPP



2. Community Profiles

Lassen County is composed of multiple unincorporated communities, often separated by large swaths of forest and natural lands. In recognition that these communities are often far apart with their own identities, needs, and emergency responses, the risk to each of these communities is addressed individually, while the goals, policies, and actions will apply Countywide, and are prioritized where noted. All communities in Lassen County, with the exception of the City of Susanville and tribal communities, are under the jurisdiction of the County.

Each community profile includes six main sections: introduction, hazard assessment, critical assets, vulnerable populations, evacuation routes, and summary of findings. Each section is explained below before the community profiles are provided.

Introduction

This section provides a basic overview of the community, including where it is located, the population, and the most pressing issues in the community.

HAZARD ASSESSMENT

It is impossible to know when a hazard will occur and the damage that it will cause; however, based on historical events and forecasted role of climate change, it is possible to identify which hazards pose the greatest risk to a community. Each hazard has an expected **probability** that is assessed as high, medium, or low.

PROBABILITY

A hazard has a high probability if is expected to occur by 2050, a medium probably if it could happen by 2050, and low if it is unlikely to occur because there is no history of the hazard occurring the community.



COMMUNITY CAPACITY

Once it is understood how likely it is for a hazard to occur, it is important to understand how the community will respond and adapt to an impact. Community capacity is low if a hazard would affect everyone and basic functions, medium if the hazard would only affect vulnerable people and supporting function, and high if the hazard would not cause major impact to anyone or community function. Community capacity is analyzed by understanding the critical assets and emergency response, vulnerable populations, and evacuation routes, each described in detail below.

Critical Assets and Emergency Response

Critical assets are pieces of infrastructure that are important to the regular functioning and emergency response services for a community. These can include roads, first responder facilities, and other important community buildings. These assets need to be protected from hazards to ensure people can evacuate, find shelter, and recover from hazards. Each community profile lists each critical asset in the community and the relevant hazards that could threaten it. Current emergency response and critical assets are examined, and population impacts on emergency services are currently evaluated on a project-by-project basis through the development review process.

► COMMUNITY CAPACITY

LOW – most or all critical assets could not function in a hazard because they are located in a hazard zone and lack necessary fortification.

MEDIUM – many assets could function in a hazard event, maintaining flexible response

HIGH – all assets could function as intended

Vulnerable Populations

Vulnerable populations are groups of people likely to be more affected by hazards because they need assistance evacuating, have special medical needs, or have a more difficult time rebuilding or otherwise recovering from a hazard. Each community profile lists the proportion of those populations in the community compared to the whole County. If there is a large proportion of a vulnerable population in a community, special considerations should be made in hazard response.

► COMMUNITY CAPACITY

LOW – a community includes many vulnerable members of a community and does not have specific plans to address their hazard response needs.

MEDIUM – a community includes vulnerable members, but has a plan to respond to their specific hazard response needs

HIGH – a community does not have vulnerable populations.

Evacuation Routes

Evacuation routes are the major roads used to escape during a hazard event. If these roads are vulnerable to hazards, or there is only one way in and out of a community, people could become trapped. Maintenance of evacuation routes is enforced by the County and provided by the particular road’s owner, which varies between the County, the California Department of Transportation (Caltrans), private owners, and other agencies.

► COMMUNITY CAPACITY

LOW – All evacuation routes are unusable in hazard event

MEDIUM – Evacuation routes require additional maintenance or planning to function

HIGH – Multiple evacuation routes outside hazard areas

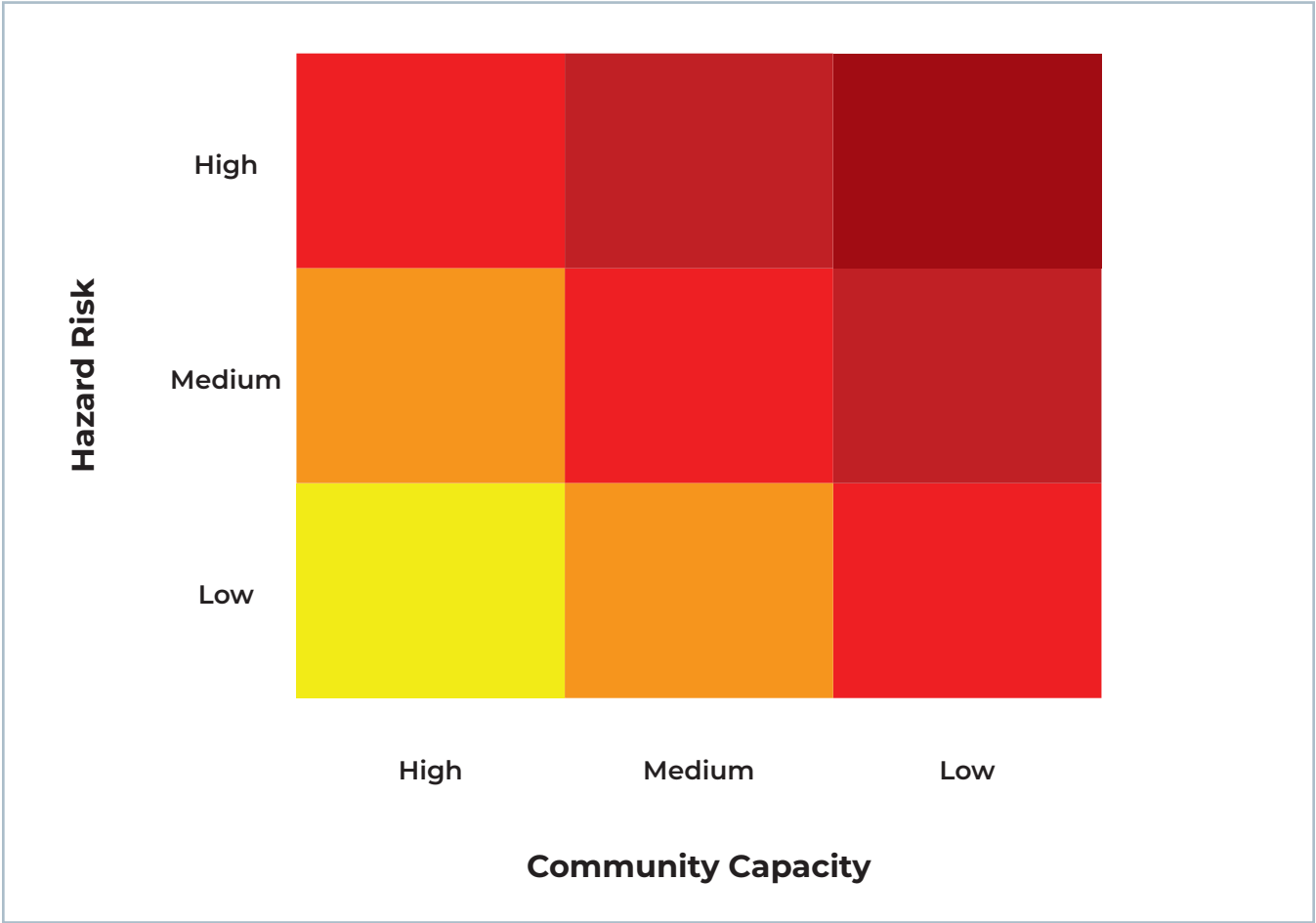
SUMMARY OF FINDINGS

For each relevant hazard that is ranked as a **priority** in the hazard assessment, a detailed assessment and maps are included to provide a more robust and custom risk analysis. For each hazard a risk and community capacity score are assessed. By combining these scores, the County can understand which hazards are likely to cause the most potential damage and disruption in the next 30 years (see **Figure 2-1, Example Hazard Risk**). This informs how the goals, policies, and actions are prioritized and implemented.

PRIORITY

A priority hazard is one that could occur in the next 30 years and would likely result in a medium impact (see Figure 5). This is indicated in the hazard assessment by scoring at least a “medium” in probability and potential impact.

Figure 2-1 – Example Hazard Risk



BIEBER

Introduction

Bieber is a community in northern Lassen County situated along the Pit River. As of 2019, 156 people call Bieber their home.¹ The community of Bieber is most at risk of wildfire and energy shortage and outages. Bieber has a strong presence of people with disabilities and older adults living alone relative to the County. Both groups of people are vulnerable to wildfire and energy shortages and outages. Bieber is primarily a residential community, with commercial hubs abutting Highway 299. Bieber is also home to the Bieber Fire Station and Big Valley Jr/Sr High, which are considered critical assets.

Hazard Assessment

Table 2-1 shows the potential hazards in Bieber and how likely they are to occur in the next 30 years. Bieber is likely to experience extreme heat and energy shortages and outages before 2050, and may experience an earthquake, flooding, or wildfire.

Table 2-1 – Hazards in Bieber

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Medium
Wildfire	Medium

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Bieber has multiple critical assets, including an airport, school, and fire station, as shown in **Table 2-2**, all of which are located outside of hazard zones; however, both the Fire Station and Big Valley High School require power to function properly and are therefore vulnerable to energy shortages and outages. The transmission line that runs through Bieber is within a moderate fire hazard severity zone.

Table 2-2 – Critical Assets in Bieber

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Southard Field*	N/A
	Bieber Fire Station	Energy Shortages and Outages
	69 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	Big Valley Jr/Sr High	Energy Shortages and Outages

* Airport within 1 mile of Bieber.

1 U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table B01003.

VULNERABLE POPULATIONS

As shown in **Table 2-3**, Bieber has a high proportion of older adults living alone and people with disabilities.² These community members are vulnerable to all hazards because they have a difficult time evacuating due to medical needs. Older adults also often die at higher rates than the general population during extreme heat events.

Table 2-3 – Vulnerable Populations in Bieber

Vulnerable Population	Presence in Bieber	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	21.2%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English-Speaking Households ²	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	27.5%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	37.5%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	12.8%	4.6%	Extreme Heat, Wildfire (smoke)

LIMITED ENGLISH-SPEAKING HOUSEHOLD

A “limited English speaking household” is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English “very well.” In other words, all members 14 years old and over have at least some difficulty with English. By definition, English-only households cannot belong to this group.

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

EVACUATION ROUTES

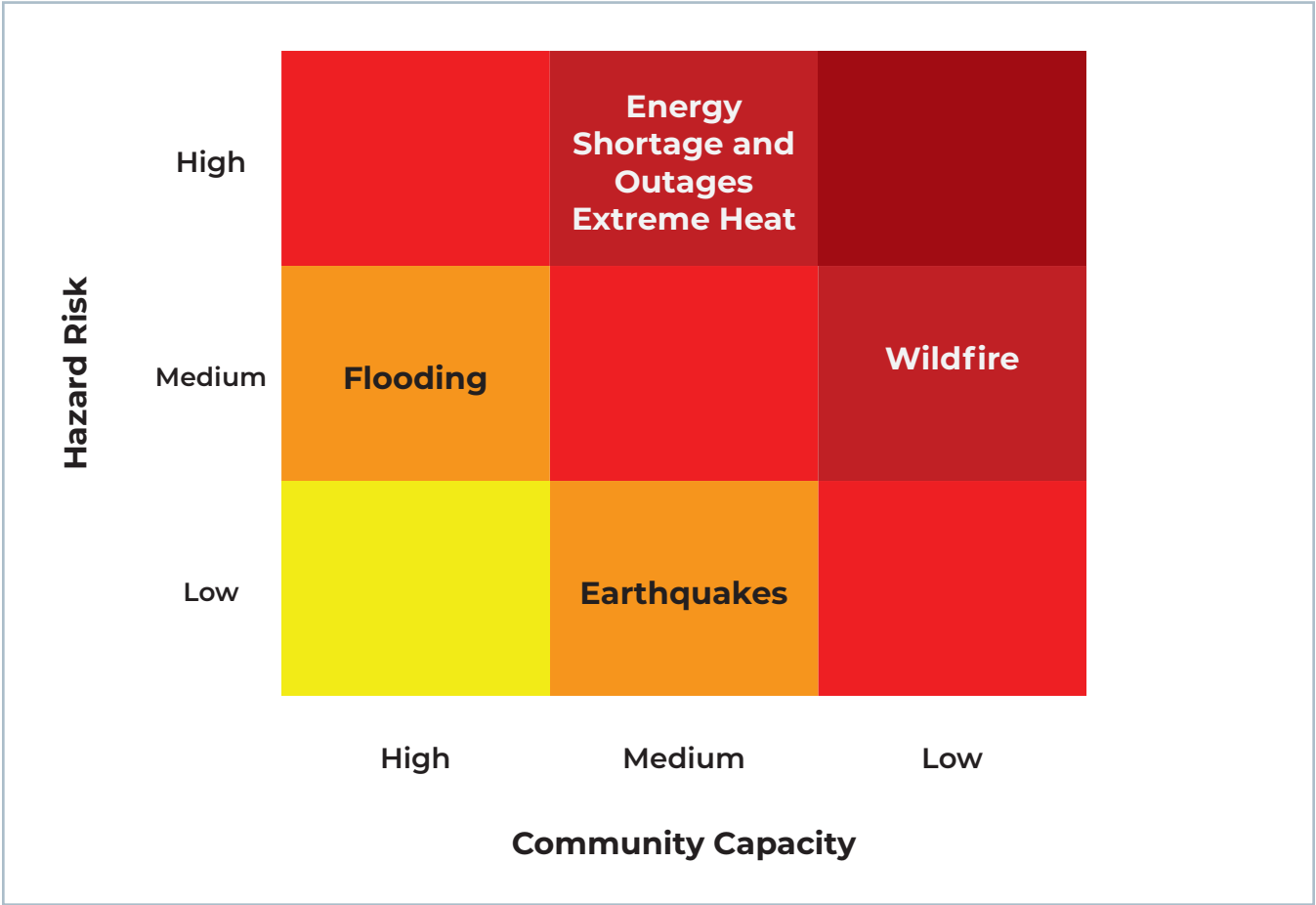
Evacuations from Bieber would occur to the southwest or northeast via Highway 299. There are multiple local roads that could act as detours if necessary in the event of an evacuation. Much of these routes traverse through moderate fire hazard severity zones.

² It is likely that many older adults living alone also have a disability, and there is significant overlap between these groups.

Summary of Findings

Bieber is most at risk from energy shortages and outages and extreme heat (see **Figure 2-2**). Both are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to people with disabilities, older adults living alone, and young children, all of which live in Bieber at higher rates than the County as a whole.

Figure 2-2 – Hazard Risk in Bieber



ENERGY SHORTAGE AND OUTAGES

Similar to many isolated communities in Lassen County, Bieber is vulnerable to energy shortages and outages as a result of hazard events damaging powerlines. The main well in Bieber is equipped with a backup generator that is regularly checked and maintained.

EXTREME HEAT

Historically, Bieber had 4 extreme heat days a year and is projected to experience 16 extreme heat days a year by 2050.³ Historically, heat waves lasted 2.7 days and are projected to increase to 7.2 days between 2020 and 2050. Bieber also has a significant number of older adults living alone, who are more susceptible to extreme heat events. Older adults are more likely to suffer from heat stroke due to their age and physical health, and older adults living alone are less likely to have someone check in on them during a heatwave and help them seek medical attention when they start showing signs of heat-related illness.

FLOODING

The 100-year flood zone in Bieber abuts the Pit River and includes several homes on the western side of the community; however, the majority of the developed areas in Bieber are not in an area of flood risk (see **Figure 2-3**). If severe flooding occurred, evacuation could be difficult because Highway 299, which is the only access road leaving the community, is also within the 100-year flood zone. No critical facilities are located in a flood zone. Older adults and people with disabilities could have a challenge evacuating in the event of severe flooding. Another important aspect to note is that some of the outskirts of Bieber near the Pit River are located in a dam inundation zone for the Roberts Dam.⁴ This means should the Roberts Dam have a breach, flooding could occur along the Pit River adjacent to Bieber.

WILDFIRE

Bieber is surrounded by wildfire hazard zones, but no critical assets, residential land uses, or commercial land uses in the community are within a wildfire hazard severity zone (see **Figure 2-4**). Historically, wildfire perimeters have not impacted Bieber, although there have been some fires and prescribed burns within 5 miles of Bieber over the last 30 years (see **Figure 2-5**).

Bieber has a high number of people with disabilities and older adults living alone, who likely will have a more difficult time evacuating. Bieber is protected by the Big Valley Fire Protection District, which maintains a close relationship with CALFIRE and benefits from the CALFIRE station in Bieber. It should also be noted that the CALFIRE station in Bieber supports a Helitack base, the only such base in Lassen County. No air attack bases are in Lassen County, with the closest such base being in Plumas County. The Lassen County Department of Community Development, CAL FIRE, and Lassen Fire Safe Council, Inc. adopted a Bieber-Nubieber Community Fire Safe Plan in 2004, which included multiple recommendations for property owners to protect their homes and to make it fire safe for themselves, their communities, and fire-fighting agencies, such as defensible space recommendations.⁵ Bieber is not a certified **Firewise** Community at this time.

FIREWISE

Firewise USA is a community-based program initiated by the National Fire Protection Association. A Firewise board is made up of residents and stakeholders representing a community. Firewise communities write and update and implement an action plan every three years that identify projects and programs to reduce local fire risk.

<https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA/Become-a-Firewise-USA-site>

³ Cal-Adapt 2020.

⁴ California Department of Water Resources. (2021). *Dam Breach Inundation Map*. Retrieved October 20, 2021, from https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

⁵ Lassen Fire Safe Council, Inc.. 2004c. Bieber-Nubieber Community Fire Safe Plan. January 2004. <https://www.lassenfiresafecouncil.org/wp-content/uploads/2015/02/Bieber-Nubieber-CWPP.pdf>.

Figure 2-3. Flood Risk Zone in Bieber



Figure 2-4. Fire Hazards Zone in Bieber

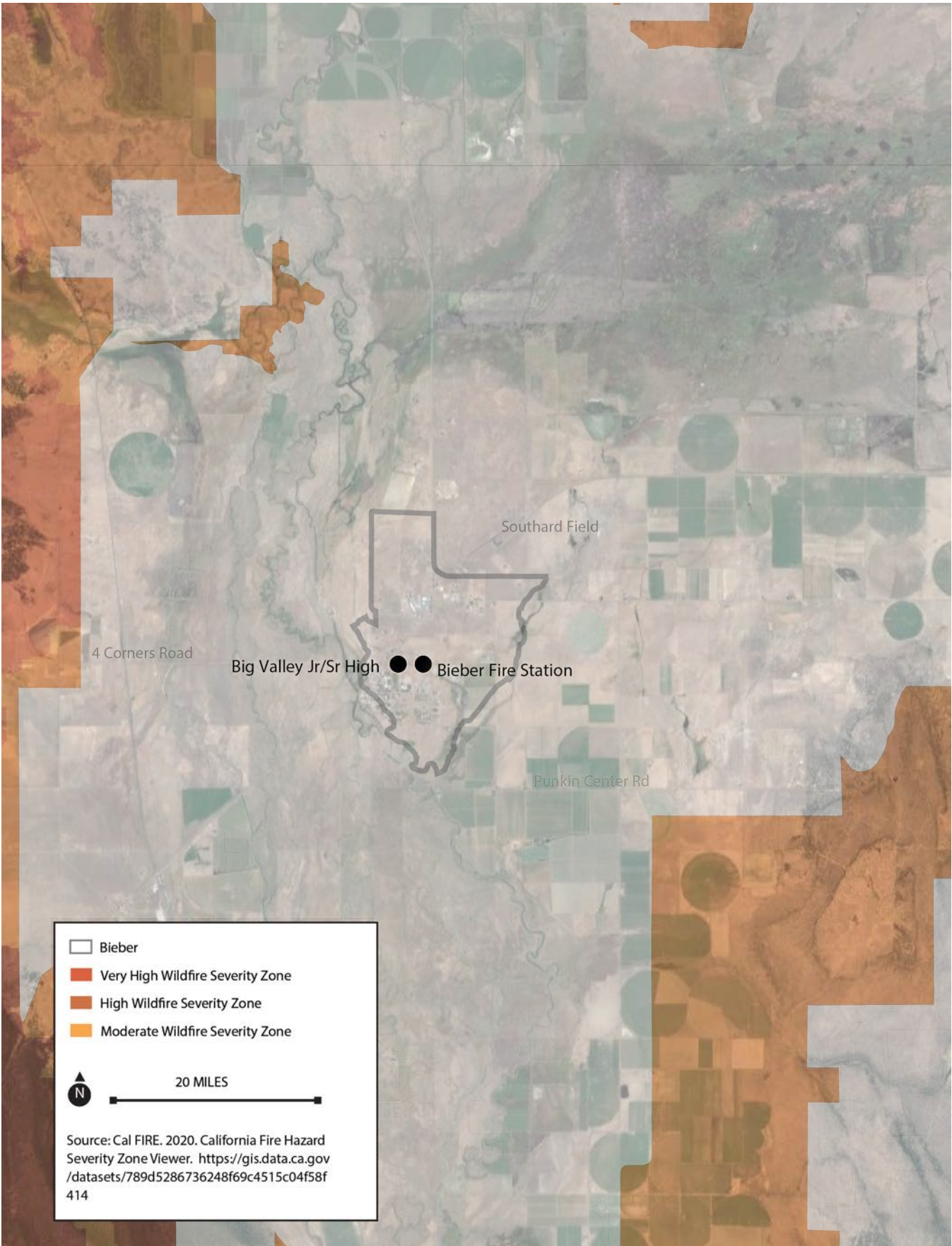
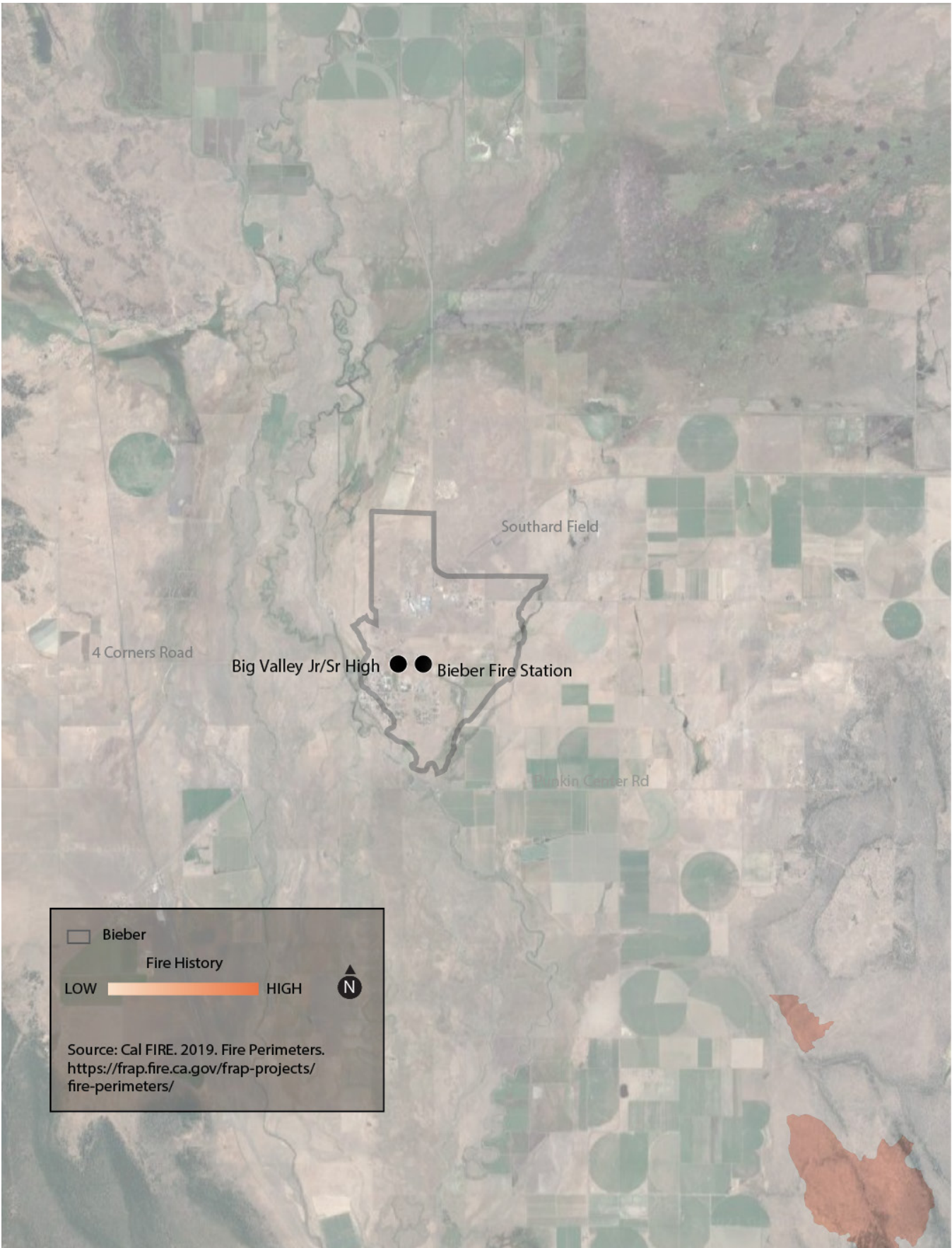


Figure 2-5. Historic Fires in Bieber



CLEAR CREEK AND WESTWOOD

Introduction

Clear Creek and Westwood are primarily residential communities located on the southwestern edge of Lassen County, 25 miles southwest of Susanville. As of 2019, 1,855 people call Clear Creek and Westwood their home (210 and 1,645 in Westwood).⁶ The communities of Clear Creek and Westwood are most at risk of wildfire, energy shortages and outages, and extreme heat. Clear Creek has a large proportion of limited English-speaking households, renters, and older adults living alone relative to the County. All three of these groups of people are vulnerable to wildfire. Additionally, older adults living alone are vulnerable to energy shortages and outages. Westwood has large vulnerable population with a higher proportion of people with disabilities, renters, and older adults living alone compared to the County.

Hazard Assessment

Table 2-4 shows the potential hazards in Clear Creek and Westwood and how likely they are to occur in the next 30 years. Clear Creek and Westwood are most at risk from wildfire, energy shortages and outages, and extreme heat. Clear Creek and Westwood could be impacted by an earthquake or flooding; however, these are less likely to profoundly impact the community because there are no Alquist-Priolo zones in the community, and flooding and dam inundation zones do not include developed areas.

Table 2-4 – Hazards in Clear Creek and Westwood

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding and Dam Failure	Medium
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

As shown in **Table 2-5**, Clear Creek and Westwood have multiple critical facilities, all of which are located outside of hazard zones; however, the fire department and schools require power to function regularly and are therefore vulnerable to energy shortages and outages.

6 U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table B01003.

Table 2-5 – Critical Assets in Clear Creek and Westwood

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Clear Creek Volunteer Fire Department	Energy Shortages and Outages, Wildfire
	Westwood CalFire Station	N/A
	60 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	Westwood High School	Energy Shortages and Outages, Extreme Heat
	Fletcher Walker Elementary	Energy Shortages and Outages, Extreme Heat

VULNERABLE POPULATIONS

As shown in **Table 2-6**, Clear Creek and Westwood both have a higher portion of renters and older adults living alone than the County averages. Westwood also has a high proportion of people with disabilities, and Clear Creek has a high proportion of limited English-speaking households. All of these populations are vulnerable to wildfire because they may have difficulty evacuating and rebuilding after a fire.

Table 2-6 – Vulnerable Populations in Clear Creek and Westwood

Vulnerable Population	Presence in Clear Creek	Presence in Westwood	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	1.9%	31.8%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English-Speaking Households ²	7.0%	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	65.0%	36.4%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	22.0%	21.1%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	0.0%	6.7%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

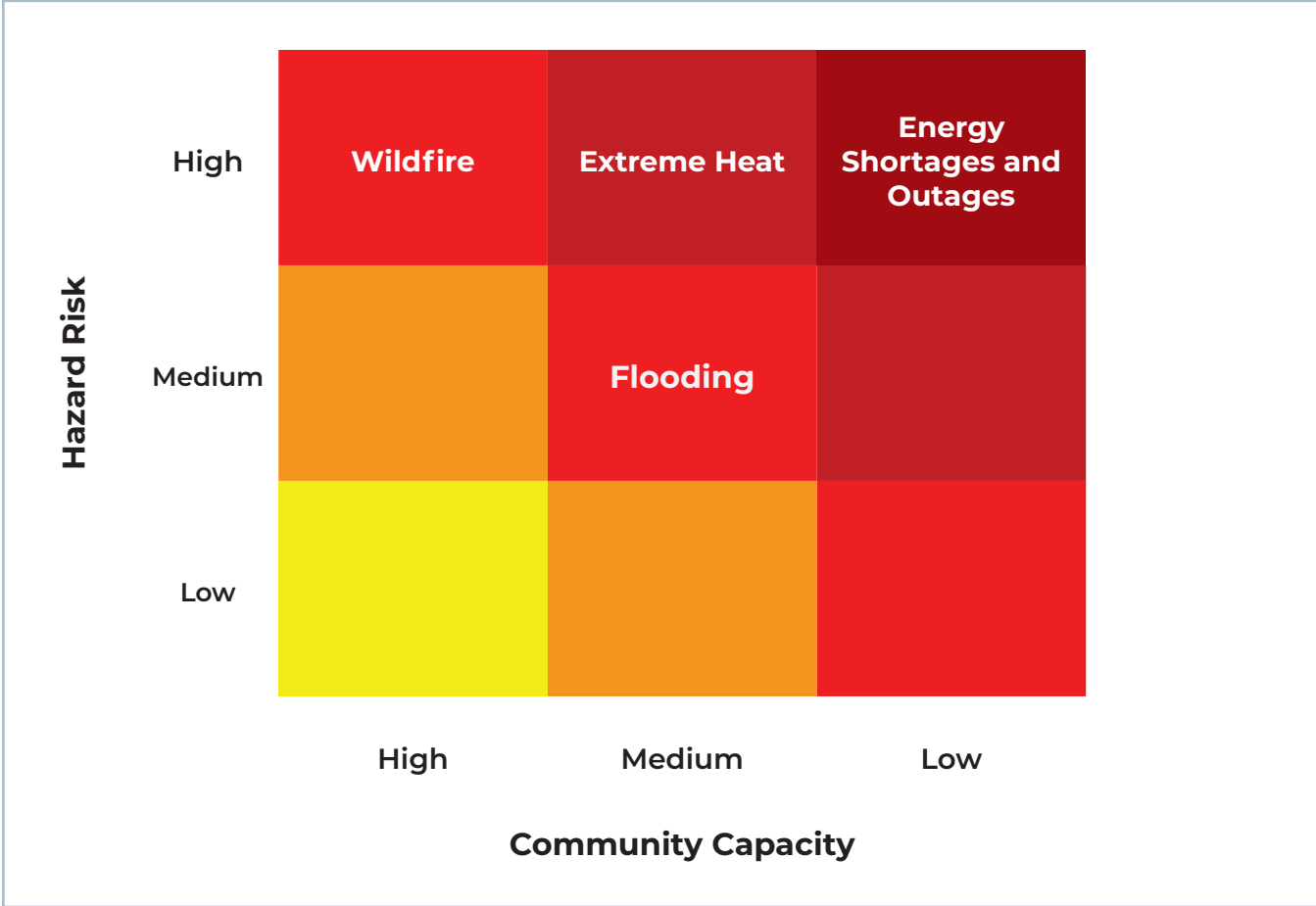
EVACUATION ROUTES

Clear Creek and Westwood have multiple routes for potential evacuations. Each would occur by traveling on California State Route (SR) 147 either to the north to SR-36 or to the south to SR-89. SR-36 allows for evacuation to the east or west. Each of these routes travel through very high fire hazard severity zones.

Summary of Findings

Clear Creek and Westwood are most at risk from energy shortage and outages, extreme heat, and wildfire (see **Figure 2-6**). Both are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to limited English-speaking households, renters, and older adults living alone in Clear Creek, as well as people with disabilities, renters, older adults living alone, and young children in Westwood, all of which live in these communities at higher rates than the County as a whole.

Figure 2-6 – Hazard Risk in Clear Creek and Westwood



ENERGY SHORTAGES AND OUTAGES

Hazard events and storms, including hazards far outside of Clear Creek and Westwood, could cause power lines to be knocked down and result in power outages in these communities. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate the impact to people’s lives. This is of special concern in Clear Creek and Westwood, given the large proportion of older adults living alone in both communities and people with disabilities in Westwood who may be medically dependent on machines or refrigeration.

EXTREME HEAT

Historically, Clear Creek and Westwood had 4 extreme heat days a year and is projected to experience 21 extreme heat days a year by 2050.⁷ Historically, heat waves lasted 2.6 days and are projected to increase to 9.0 days between 2020 and 2050.⁸ Clear Creek and Westwood have a significant number of older adults living alone, who are more susceptible to extreme heat events. Older adults are more likely to suffer from heat stroke due to their age and physical health, and older adults living alone are less likely to have someone check in on them during a heatwave and help them seek medical attention when they start showing signs of heat-related illness.

FLOODING

The 100-year flood zone in Clear Creek and Westwood surrounds the Mountain Meadows Reservoir and crosses Highway 36 to the east of Westwood. No developed areas nor critical facilities are located in a flood zone. The high proportion of older adults living alone in both communities, as well as the high proportion of people with disabilities in Westwood, could have a more difficult time evacuating. In addition, limited English-speaking households in Clear Creek may have difficulty accessing important evacuation information. The high proportion of renters in Clear Creek and Westwood are more likely to be displaced as a result of a flood damaging their residence because renters often have less insurance and recovery aid than homeowners.

Additionally, it should be mentioned that the Indian Ole Dam is upstream of Clear Creek.⁹ At this time, no development in Clear Creek is directly in this dam inundation zone, but the Clear Creek community is adjacent to the Hamilton Branch which would flood in the event of a breach at the Indian Ole Dam.

7 Cal-Adapt 2020.

8 Cal-Adapt. 2021. “Extreme Heat Days & Warm Nights.” Accessed March 31, 2021. <https://cal-adapt.org/tools/extreme-heat/>.

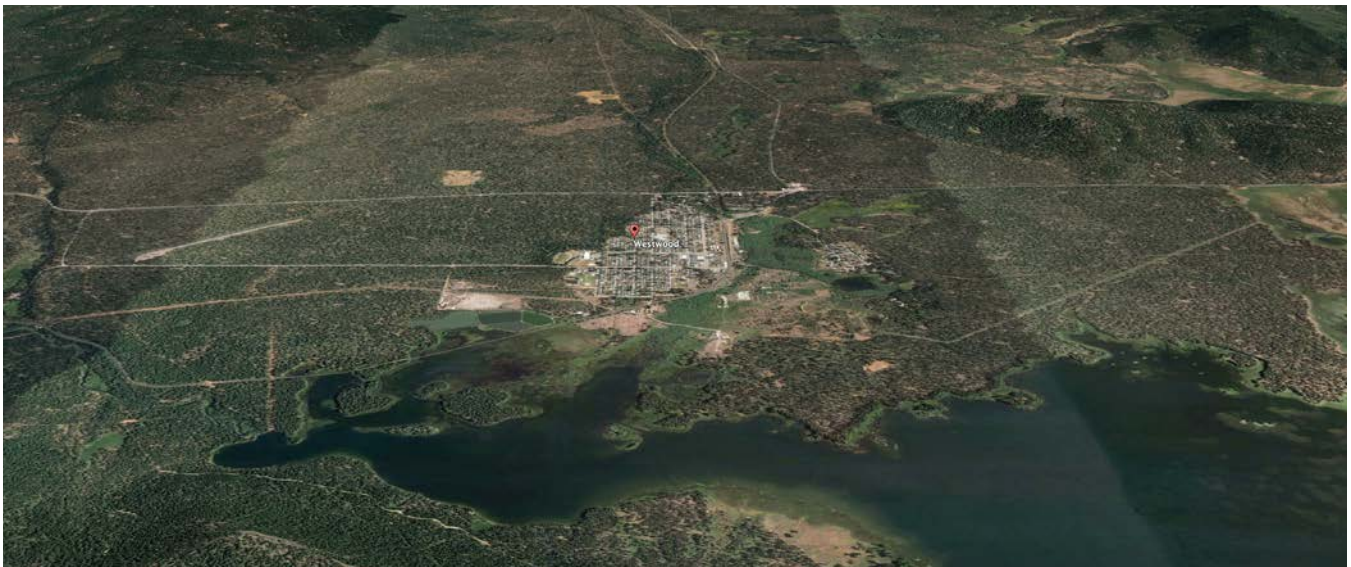
9 California Department of Water Resources. (2021). *Dam Breach Inundation Map*. Retrieved October 20, 2021, from https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

WILDFIRE

A portion of Westwood is classified as a High Wildfire Severity Zone, and the entirety of Clear Creek falls within a very high fire hazard severity zone. The land uses within the fire hazard severity zones in these communities are low-density residential, planned development, and small amounts of industrial and commercial. In regard to critical facilities, the Clear Creek volunteer fire department is located in a very high fire hazard severity zone, while all other critical and emergency response facilities are outside fire hazard zones (**see Figure 2-7**). Historically, there have been wildfires nearby Clear Creek and Westwood in the forested open space; however, all of these fires occurred before 1990 (see **Figure 2-8**).

Clear Creek and Westwood both have a high number of older adults living alone and renters. Older adults living alone will likely have a more difficult time evacuating. Non-English-speaking households in Clear Creek and people with disabilities in Westwood will also likely have a more difficult time evacuating. Renters also make up a large number of the occupied units in both Clear Creek and Westwood; renters may be displaced and have fewer protections than homeowners after a wildfire.

Clear Creek and Westwood communities adopted a Community Fire Safe Plan in 2004, and this plan included multiple recommendations for the community, including infrastructure improvements, a community fuel break, defensible space recommendations, and more. In recent years additional fire mitigation projects have been performed and funded by Lassen Fire Safe Council, Inc., including brush fuel clearing, structure ignitability assessments, watershed restoration, and fuel load reduction.¹⁰ Clear Creek and Westwood have an active Firewise Board and are considered a certified Firewise Community. A portion of Clear Creek is provided fire protection services by the Clear Creek Community Services District, with the remainder being provided by CAL FIRE.



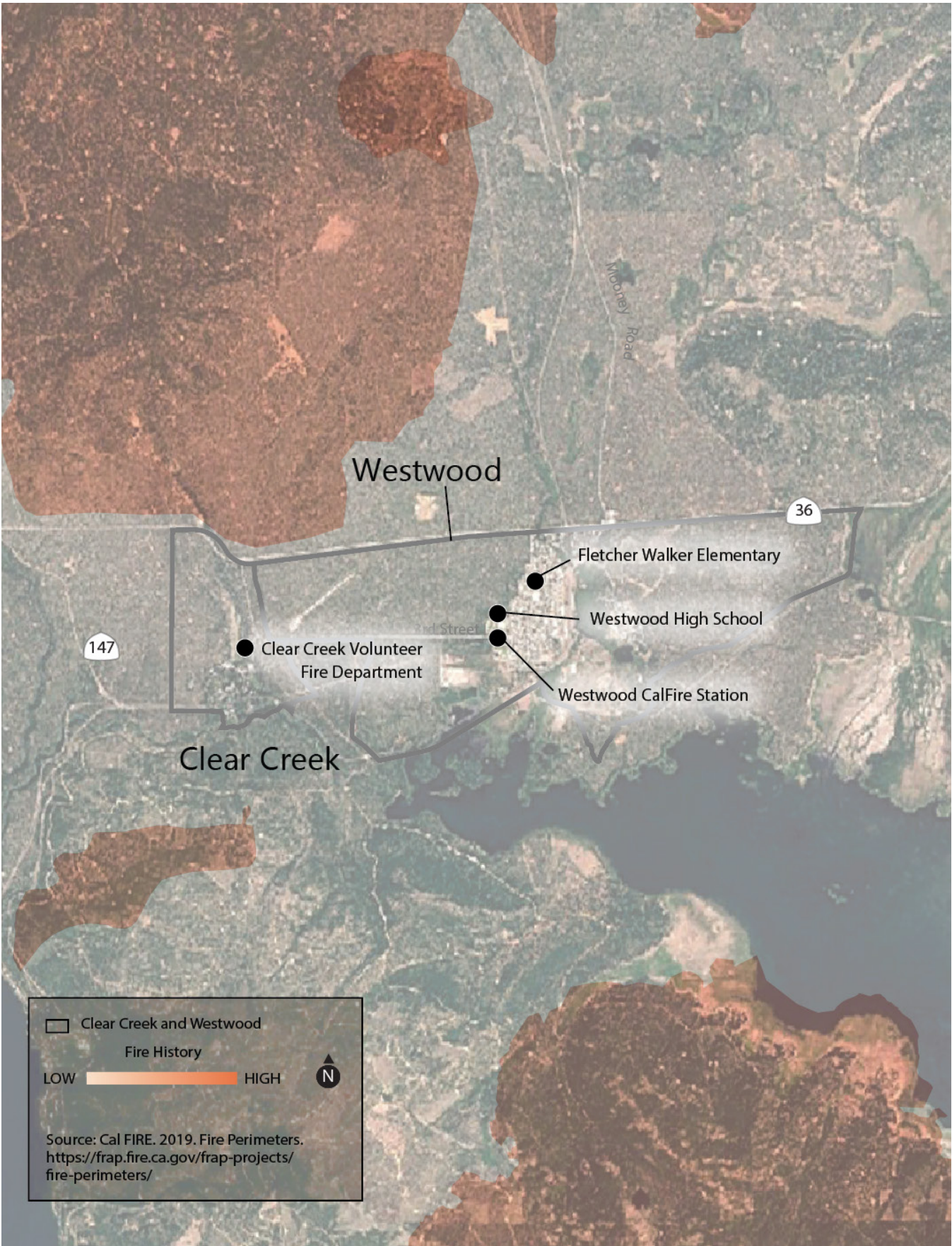
Google Earth image of Westwood, Lassen County, CA

¹⁰ Lassen Fire Safe Council, Inc.. 2004a. Westwood-Clear Creek Community Fire Safe Plan. January 2004. <https://www.lassenfiresafecouncil.org/wp-content/uploads/2015/02/Westwood-Clear-Creek.pdf>.

Figure 2-7. Wildfire Hazard Severity Zones in Clear Creek and Westwood



Figure 2-8. Historic Wildfires in Clear Creek and Westwood



DOYLE

Introduction

Doyle is a community in southern Lassen County situated along the Long Valley Creek. As of 2019, 622 people call Doyle their home.¹¹ The community of Doyle is most at risk of wildfire, extreme heat, and energy shortage and outages. Doyle has a strong presence of people with disabilities and older adults living alone relative to the County. Both groups of people are especially vulnerable to wildfire and energy shortages and outages. Doyle is also home to the Doyle Fire Station and Long Valley Charter School, which are considered critical assets. Both are vulnerable to wildfire.

Hazard Assessment

Table 2-7 shows the potential hazards in Doyle and how likely they are to occur in the next 30 years. Doyle is most at risk from wildfire, energy shortages and outages, and extreme heat. Doyle does include Alquist-Priolo zones; however, earthquakes do not happen at the same regular intervals as wildfires and extreme heat. Additionally, the flood zones in Doyle do not include developed areas.

Table 2-7 – Hazards in Doyle

Hazard	Probability
Earthquake	Medium
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Medium
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

As shown in **Table 2-8**, Doyle has two critical facilities, both of which are located within a moderate fire hazard severity zone.

Table 2-8 – Critical Assets in Doyle

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Doyle Fire Department	Wildfire, Energy Shortages
	60 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	Long Valley Charter School	Wildfire, Energy Shortages

11 U.S. Census Bureau 2019.

VULNERABLE POPULATIONS

As shown in **Table 2-9**, Doyle has a higher proportion of people with disabilities, who may have a more difficult time evacuating from a hazard event. They also may be more dependent on energy for medical supplies or medication that requires refrigeration.

Table 2-9 – Vulnerable Populations in Doyle

Vulnerable Population	Presence in Doyle	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	25.7%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English Speaking Households ²	0.0%	0.8%	Wildfire; Flooding, Earthquakes
Renters ³	12.6%*	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	16.7%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	1.3%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

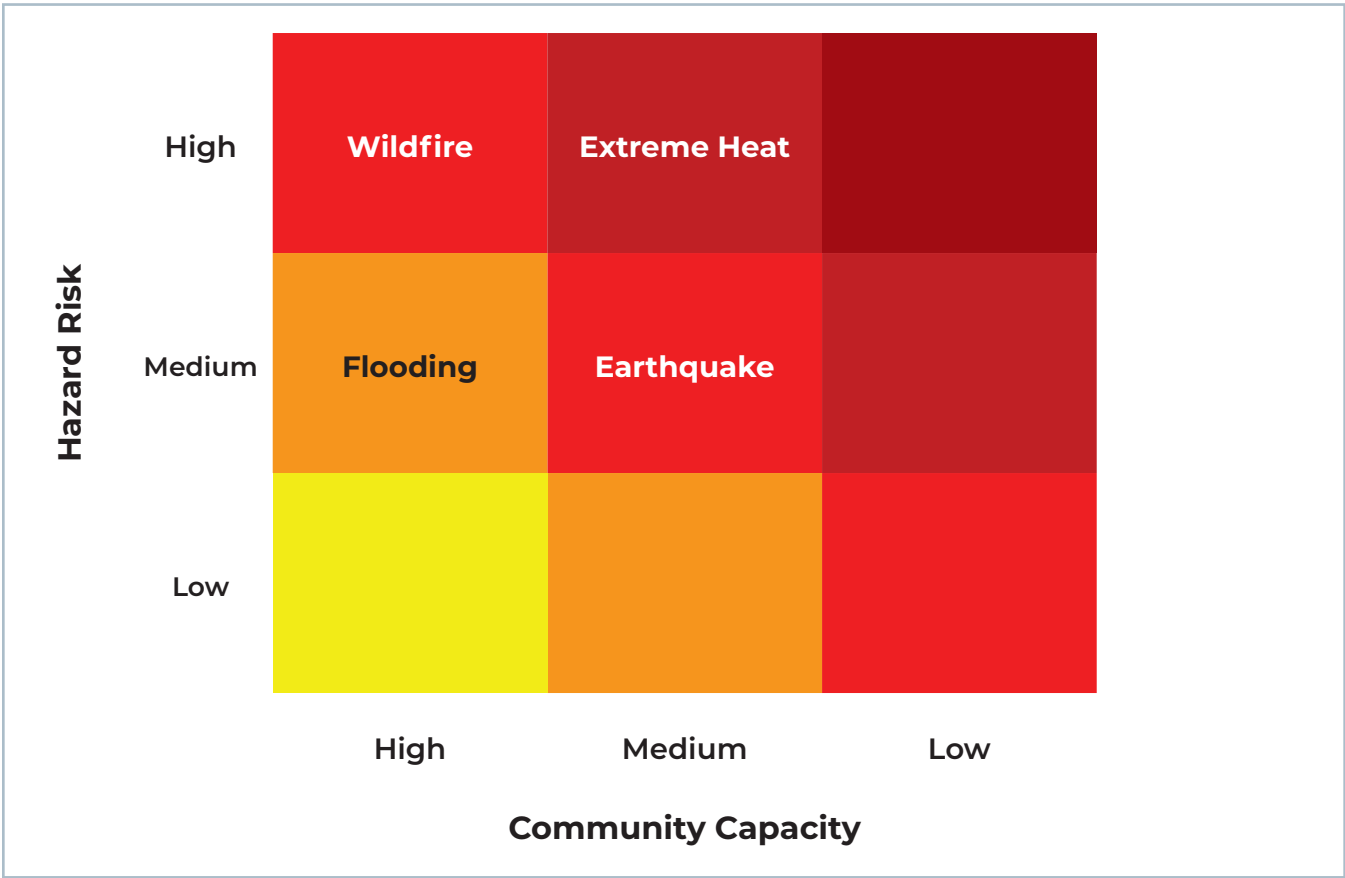
EVACUATION ROUTES

Evacuations from Doyle must evacuate onto U.S. Highway 395, and if it were are closed due to fire, evacuation would be severely hindered, especially if needing to evacuate to the south. Some local roads could be used to evacuate north toward Herlong. These evacuation routes are mostly located in moderate fire hazard severity zones.

Summary of Findings

Doyle is most at risk from energy shortages and outages, extreme heat, and wildfire (see **Figure 2-9**). All are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to people with disabilities and older adults living alone, both of which live in Doyle at higher rates than the County as a whole.

Figure 2-9– Hazard Risk in Doyle



EARTHQUAKE

Active faults run transverse Doyle. No critical assets are within the Alquist-Priolo zone and therefore are not subject to additional building regulations. The large proportion of older adults and people with disabilities could need additional assistance in the immediate aftermath of a large earthquake.

ENERGY SHORTAGES AND OUTAGES

Hazard events and storms, including hazards far outside of Doyle, could cause power lines to be knocked down and result in power outages in this community. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages

are likely to occur, sufficient planning can mitigate impact to people's lives. This is of special concern in Doyle, given the large proportion of people with disabilities and older adults living alone who may be medically dependent on machines or refrigeration.

EXTREME HEAT

Historically, Doyle had 4 extreme heat days a year and is projected to experience 16 extreme heat days a year by 2050.¹² Historically, heat waves lasted 2.7 days and are projected to increase to 6.3 days between 2020 and 2050. Doyle has a slightly higher than average number of older adults living alone, who are more susceptible to extreme heat events. Older adults are more likely to suffer from heat stroke due to their age and physical health, and older adults living alone are less likely to have someone check in on them during a heatwave and help them seek medical attention when they start showing signs of heat related illness.

FLOODING

The 100-year flood zone in Doyle abuts Long Valley Creek, the majority of the developed areas in Doyle are not in an area of flood risk. If severe flooding occurred, evacuation could be difficult because Highway 299, which is the only access road leaving the community, is also within the 100-year flood zone. No critical facilities are located in a flood zone. Older adults and people with disabilities could have a challenge evacuating in the event of severe flooding; however, the low proportion of renters in Doyle means that community members are less likely to be displaced.

WILDFIRE

All developed areas in Doyle are designated as agriculture and are all within a moderate fire hazard severity zone (see **Figure 2-10**). Doyle is surrounded by very high wildfire severity zones to the south west. Historically, wildfires have occurred in around Doyle, notably the Long Valley Fire in 2017 (see **Figure 2-11**). Doyle has a higher number of people with disabilities and older adults living alone, who likely will have a more difficult time evacuating; however, the low proportion of renters in Doyle means that community members are less likely to be displaced long term. The Doyle community adopted a Community Fire Safe Plan in 2004. This plan included multiple recommendations for the community, including infrastructure improvements, a community fuel break, defensible space recommendations, and more. Fire protection services for Doyle are provided by the Doyle Fire Protection District. Doyle is not a certified Firewise Community at this time.

12 Cal-Adapt 2020.

Figure 2-10. Wildfire Hazard Severity Zones in Doyle

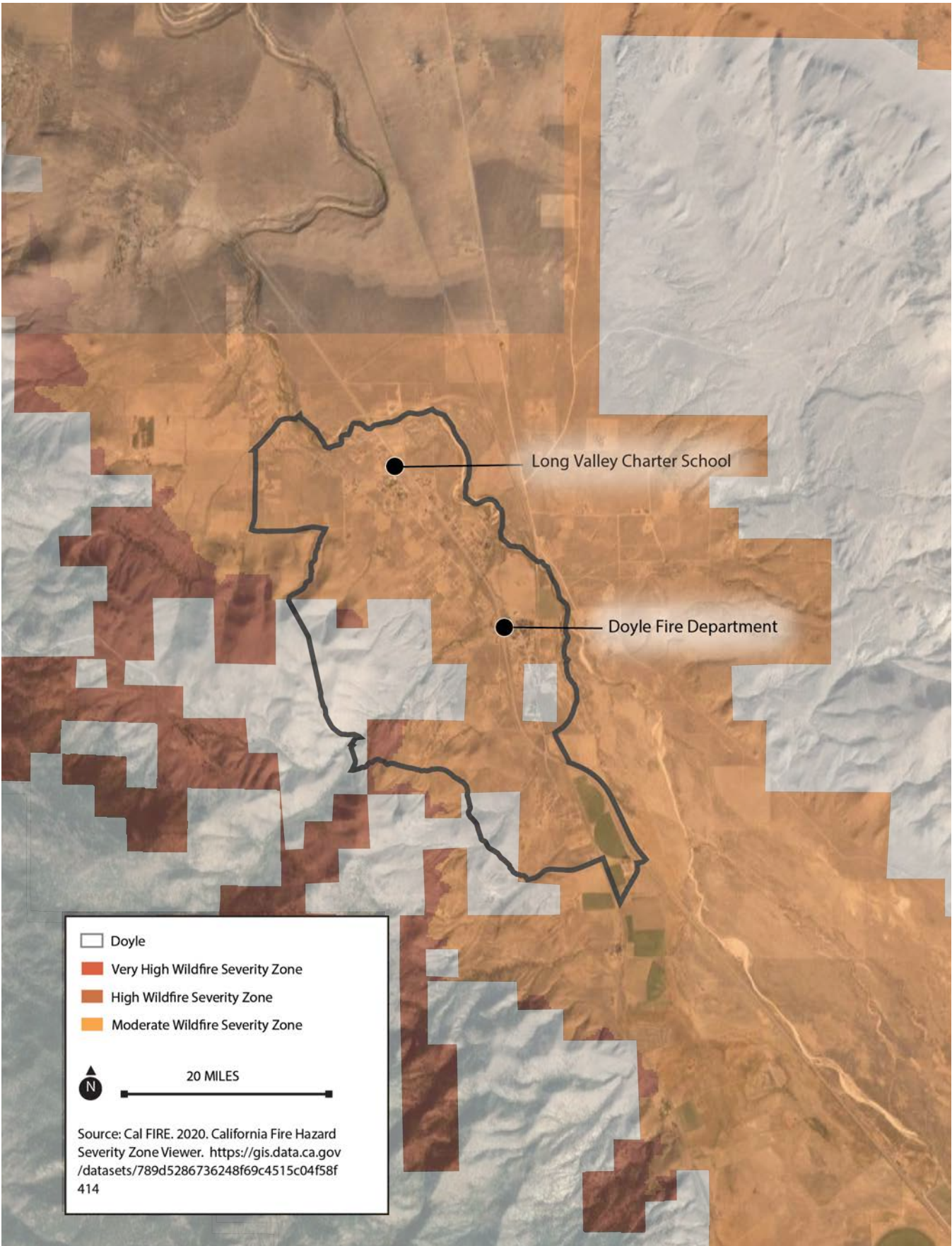
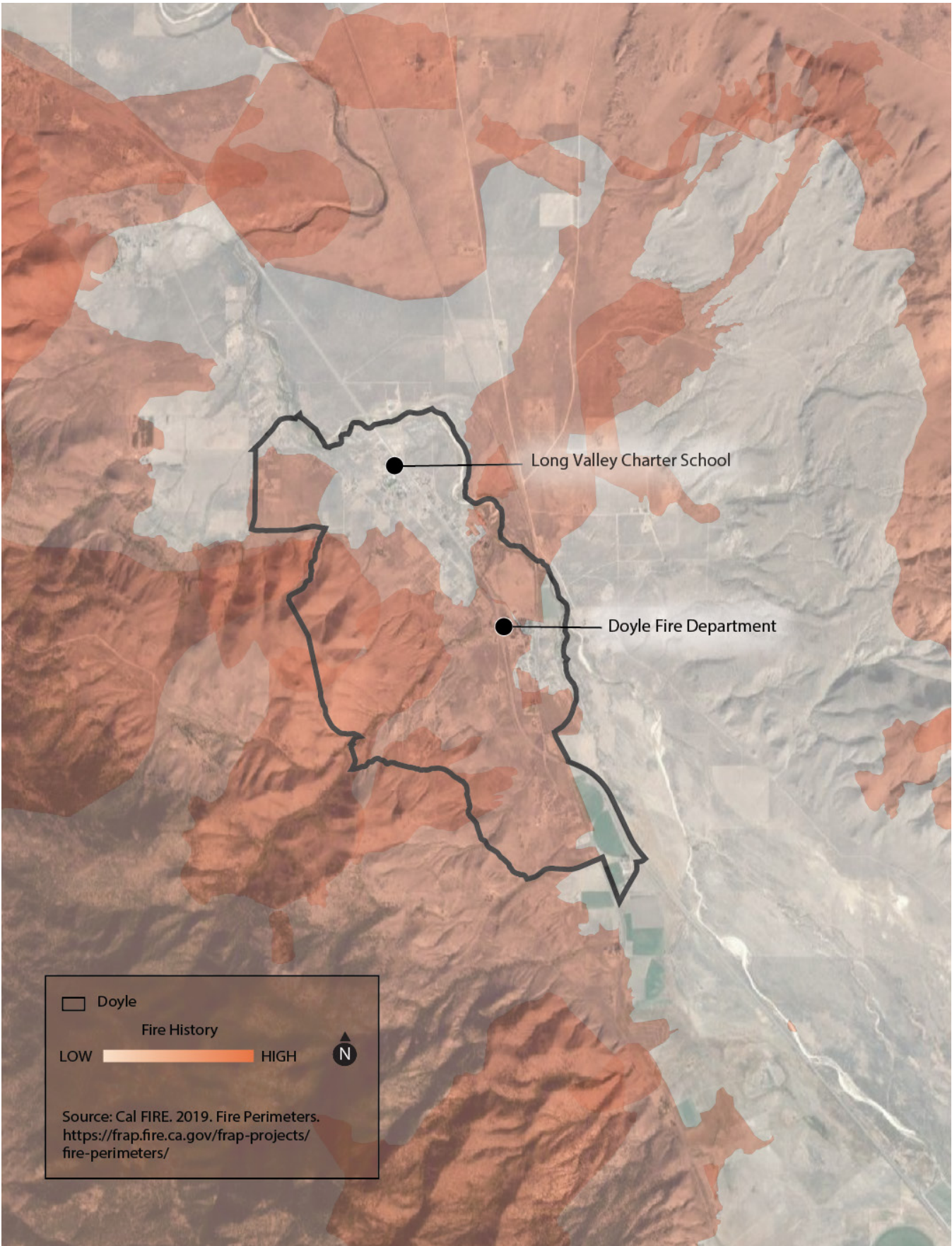


Figure 2-11. Historic Wildfires in Doyle



HERLONG AND PATTON VILLAGE

Introduction

Herlong and Patton Village are adjacent communities in southern Lassen County situated on the southeastern region of Honey Lake Valley and Honey Lake. As of 2019, 1,925 people call Herlong and Patton Village their home (1,295 people in Herlong and 630 in Patton Village).¹³ The communities of Herlong and Patton Village are most at risk of energy shortages and outages, extreme heat, and wildfire. Patton Village is also home to the Herlong Airstrip, which is considered a critical asset, and is vulnerable to wildfire.

Hazard Assessment

Table 2-10 shows the potential hazards in Herlong and Patton Village, and how likely they are to occur in the next 30 years. Herlong and Patton Village are most at risk from wildfire, energy shortages and outages, and extreme heat. Herlong and Patton Village do include Alquist-Priolo zones, and there are several in the surrounding areas; however, earthquakes do not happen at the same regular intervals as wildfires and extreme heat. Additionally, the flood zones in Patton Village do not include developed areas.

Table 2-10 – Hazards in Herlong and Patton Village

Hazard	Probability
Earthquake	Medium
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Medium
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

As shown in **Table 2-11**, Herlong and Patton Village have multiple critical facilities, including an airstrip, public utility district, correctional institution, army depot, transmission lines, and two schools. Herlong Airstrip is located within a moderate wildfire severity zone.

13 U.S. Census Bureau 2019.

Table 2-11 – Critical Assets in Herlong and Patton Village

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Herlong Airstrip	Wildfire
	Herlong Public Utility District	Energy Shortage and Outage
	Herlong Federal Correctional Institution	Energy Shortage and Outage
	Sierra Army Depot	N/A
	PSREC Solar Array	Energy Shortage and Outage
	60 kV Transmission Line	Wildfire
	345 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	Herlong High School	Extreme Heat
	Fort Sage Middle School	Extreme Heat

VULNERABLE POPULATIONS

As shown in **Table 2-12**, Patton Village has higher proportions of people with disabilities, renters, and young children than Lassen County averages. As shown in **Table 2-12**, Herlong has higher proportions of people with disabilities and renters than Lassen County averages.

Table 2-12 – Vulnerable Populations in Herlong and Patton Village

Vulnerable Population	Presence in Herlong	Presence in Patton Village	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	21.2%	27.0%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English Speaking Households ²	0.0%	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	100%	46.2%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	7.8%	6.9%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	1.2%	6.3%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.



Google Earth image of Herlong, Lassen County, CA

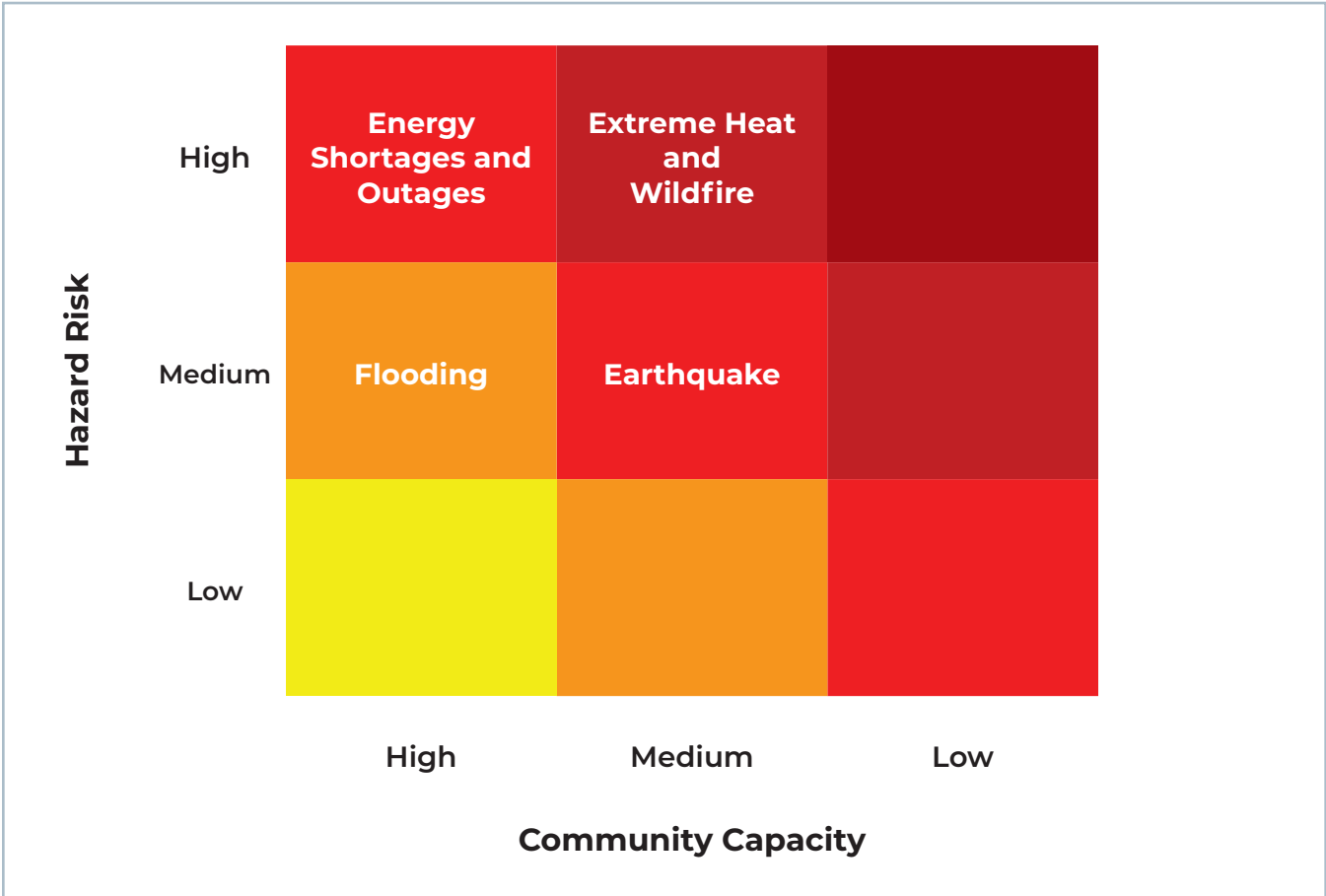
EVACUATION ROUTES

Evacuations from Herlong and Patton Village must evacuate southwest onto Herlong Access Road (County Highway A25) and then to U.S. 395 at Herlong Junction. If either of these roads are closed, evacuation would be severely hindered. Garnier Road (County Highway A26) can be accessed south of Herlong Access Road (County Highway A25) to U.S. 395 if the southwestern portion of Herlong Access Road (County Highway A25) were to be closed. Herlong Access Road (County Highway A25) and Garnier Road (County Highway A26)—the primary and secondary routes to U.S. 395—are both within 100-year flood zones where they intersect with Long Valley Creek. Evacuation along these routes may be difficult or infeasible if severe flooding occurs on these roadways. Part of U.S. 395, which is the nearest major highway to the communities, is also within the 100-year flood zone and may block vehicles traveling southbound out of the communities. Part of U.S. 395 is also within the Alquist-Priolo zone, which may make evacuation along this route difficult or infeasible after an earthquake. The southern part of Patton Village, as well as the area south of the communities, are within a moderate wildfire severity zone, and include most of Garnier Road (County Highway A26) and U.S. 395. Herlong's location in a moderate wildfire severity zone causes most evacuation routes to also be in moderate fire hazard severity zones.

Summary of Findings

Herlong and Patton Village are most at risk from extreme heat, and wildfire (see **Figure 2-12**). Both are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to people with disabilities and renters in Herlong, as well as people with disabilities, renters, and young children in Patton Village, all of which live in these communities at higher rates than the County as a whole.

Figure 2-12 – Hazard Risk in Herlong and Patton Village



EARTHQUAKE

Although most active faults run in multiple areas outside of Herlong and Patton Village, the Alquist-Priolo zone crosses slightly into Patton Village just north of the Herlong Federal Correctional Institution and another Alquist-Priolo zone crosses very slightly into Herlong north of the Herlong Public Utility District. No critical assets are within the Alquist-Priolo zone and therefore are not subject to additional building regulations. Additionally, earthquakes can have far-reaching impacts beyond the fault zones themselves. Earthquakes are a hazard of concern for nearly all vulnerable populations in Herlong and Patton Village. Herlong and Patton Village have higher proportions of people with disabilities than the Lassen County average; this population could need additional assistance in the immediate aftermath of a large earthquake. Both Herlong and Patton Village have a higher proportion of renters than the Lassen County average. Renters may have a more difficult time recovering because they may be displaced after an earthquake and they may lack appropriate insurance and depend on a limited rental stock for housing.

ENERGY SHORTAGES AND OUTAGES

Hazard events and storms, including hazards far outside of Herlong and Patton Village, could cause power lines to be knocked down and result in power outages in these communities. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy

shortages and outages are likely to occur, sufficient planning can mitigate impact to people's lives. This is of special concern in Herlong and Patton Village, given the large proportion of people with disabilities who may be medically dependent on machines or refrigeration. The community is located adjacent to the new PSREC solar array, which has the capacity to provide emergency backup power for PSREC customers in Herlong and Patton Village. This improves the community's capacity to respond to outages caused by fires, earthquakes, or other issues in surrounding areas outside of Herlong and Patton Village.

EXTREME HEAT

Historically, Herlong and Patton Village had 4 extreme heat days a year, and these communities are projected to experience 19 extreme heat days a year by 2050.¹⁴ Historically, heat waves lasted 2.6 days and are projected to increase to 8.2 days between 2020 and 2050.¹⁵ In Patton Village, there is a higher proportion of young children than the Lassen County average. Young children may need to be monitored for signs of heat-related illness and would require assistance seeking medical attention.

FLOODING

The southeastern stream of Long Valley Creek on the west end of Patton Village is within the 100-year floodplain. No developed areas or critical assets are within a flood risk area (see **Figure 2-13**).

WILDFIRE

Much of the areas of Patton Village are within a moderate wildfire severity zone, including the Herlong Airstrip (see **Figure 2-14**). The land uses of Patton Village within the moderate wildfire severity zone include Town Center, Rural Residential, and Low Density Urban Residential. Historically, wildfires have largely occurred in the forested land south of Herlong and Patton Village (see **Figure 2-15**). Compared to the Lassen County averages, Herlong and Patton Village have a higher number of people with disabilities; this population likely will have a more difficult time evacuating. Renters also make up a large number of Patton Village's households and all of Herlong's households. Renters may be displaced and have fewer protections than homeowners after a wildfire. Young children may also be particularly sensitive to smoke and should be given special consideration during and after a wildfire.¹⁶

The Lassen County Department of Community Development, California Department of Forestry and Fire Protection (CAL FIRE), and Lassen Fire Safe Council, Inc. adopted a Herlong Community Fire Safe Plan in 2004, which included multiple recommendations for property owners to protect their homes and to make it fire safe for themselves, their communities, and fire-fighting agencies. Recommendations included infrastructure improvements, defensible space recommendations, and more.¹⁷ Herlong and Patton Village are not certified Firewise Communities at this time.¹⁸ Herlong Public Utility District provides fire protection for Herlong and Patton Village.

14 Cal-Adapt 2021.

15 Cal-Adapt 2021.

16 EPA (U.S. Environmental Protection Agency). 2019. "Which Populations Experience Greater Risks of Adverse Health Effects Resulting from Wildfire Smoke Exposure?" Updated September 30, 2019. <https://www.epa.gov/wildfire-smoke-course/which-populations-experience-greater-risks-adverse-health-effects-resulting#adults>.

17 Lassen Fire Safe Council, Inc.. 2004b. Herlong Community Fire Safe Plan. January 2004. <https://www.lassenfiresafecouncil.org/wp-content/uploads/2015/02/Herlong-CWPP.pdf>.

18 NFPA (National Fire Protection Association). 2021. "State Listing of Participants." <https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA/Firewise-USA-Resources/Firewise-USA-sites/State-listing-of-participants>.

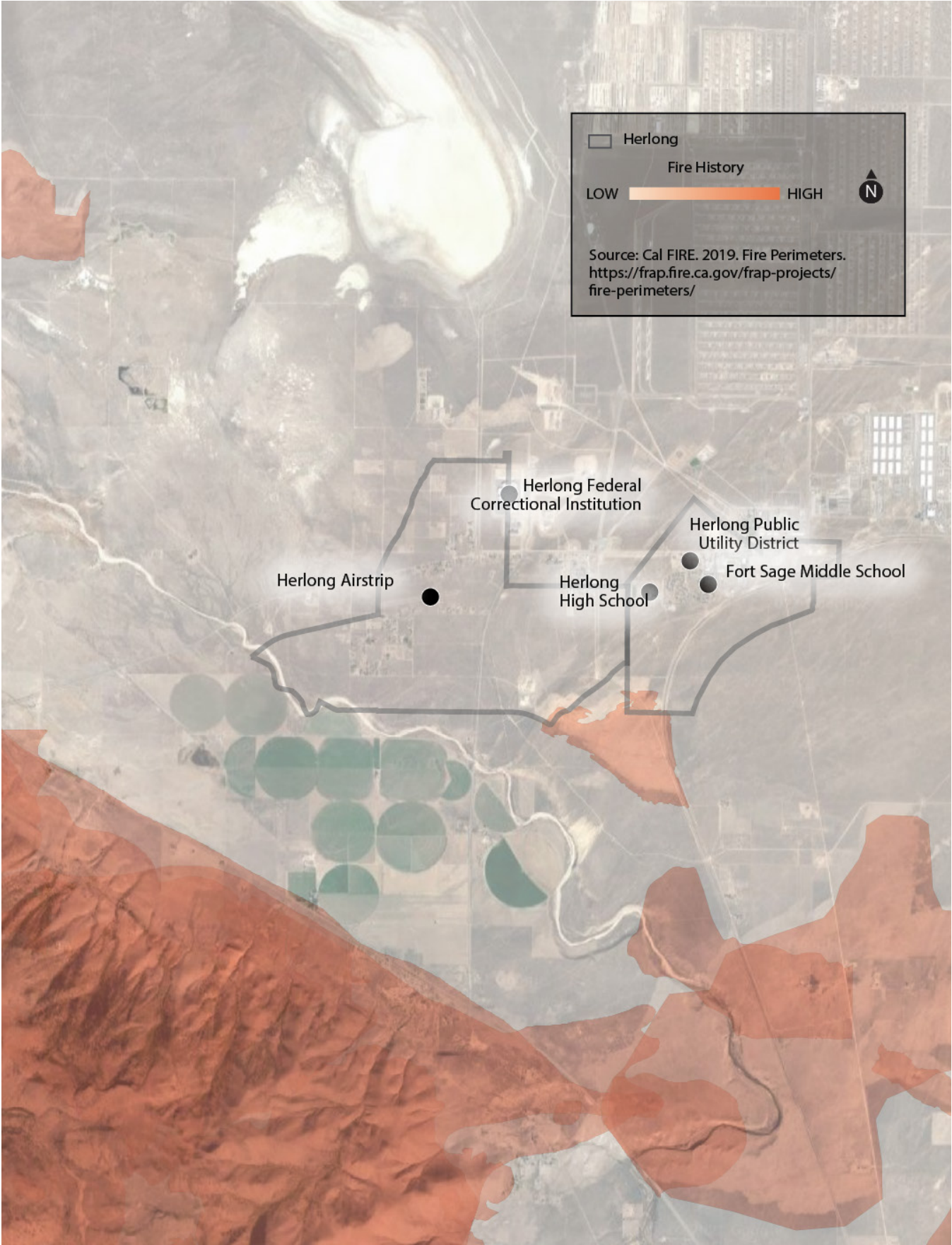
Figure 2-13. Flood Zones in Herlong



Figure 2-14. Wildfire Hazard Severity Zones in Herlong



Figure 2-15. Historic Wildfires in Herlong



JANESVILLE

Introduction

Janesville is a community located in southern Lassen County, just west of Honey Lake and about 10 miles south of Susanville. As of 2019, 1,409 people call Janesville their home.¹⁹ The community of Janesville is most at risk of earthquakes, extreme heat, wildfire, and energy shortage and outages. Janesville has a slightly higher proportion of renters and young children relative to the County (see **Table 2-13**). Both of these groups of people are vulnerable to wildfire. Renters are also vulnerable to displacement when hazards such as earthquake or flood damage their residences. Janesville’s critical assets are the Janesville Fire Protection District, 60-kilovolt (kV) transmission line, and Janesville Elementary. All are vulnerable to wildfire, and the Fire Protection District and Elementary School are vulnerable to energy shortages and outages.

Hazard Assessment

Table 2-13 shows the potential hazards in Janesville and how likely they are to occur in the next 30 years. Janesville is likely to experience extreme heat, energy shortages and outages, and wildfire before 2050, and may experience an earthquake and flooding.

Table 2-13 – Hazards in Janesville

Hazard	Probability
Earthquake	Medium
Energy Shortages and Outages	High
Extreme Heat	High
Flooding	Medium
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Janesville has two critical assets, a fire protection district and a school, as shown in **Table 2-14**. Both of these critical assets are located in high wildfire severity zones.

Table 2-14 – Critical Assets in Janesville

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Janesville Fire Protection District	Energy Shortages and Outages, Wildfire
	60 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	Janesville Elementary	Energy Shortages and Outages, Extreme Heat, Wildfire

19 U.S. Census Bureau 2019.

VULNERABLE POPULATIONS

As shown in **Table 2-15**, Janesville has a high proportion of renters and young children compared to the Lassen County averages. Both of these groups of people are vulnerable to wildfire. Renters are also vulnerable to earthquakes and flooding. Young children are also vulnerable to extreme heat.

Table 2-15 – Vulnerable Populations in Janesville

Vulnerable Population	Presence in Janesville	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	13.6%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English Speaking Households ²	0.5%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	36.6%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	5.1%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	5.9%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

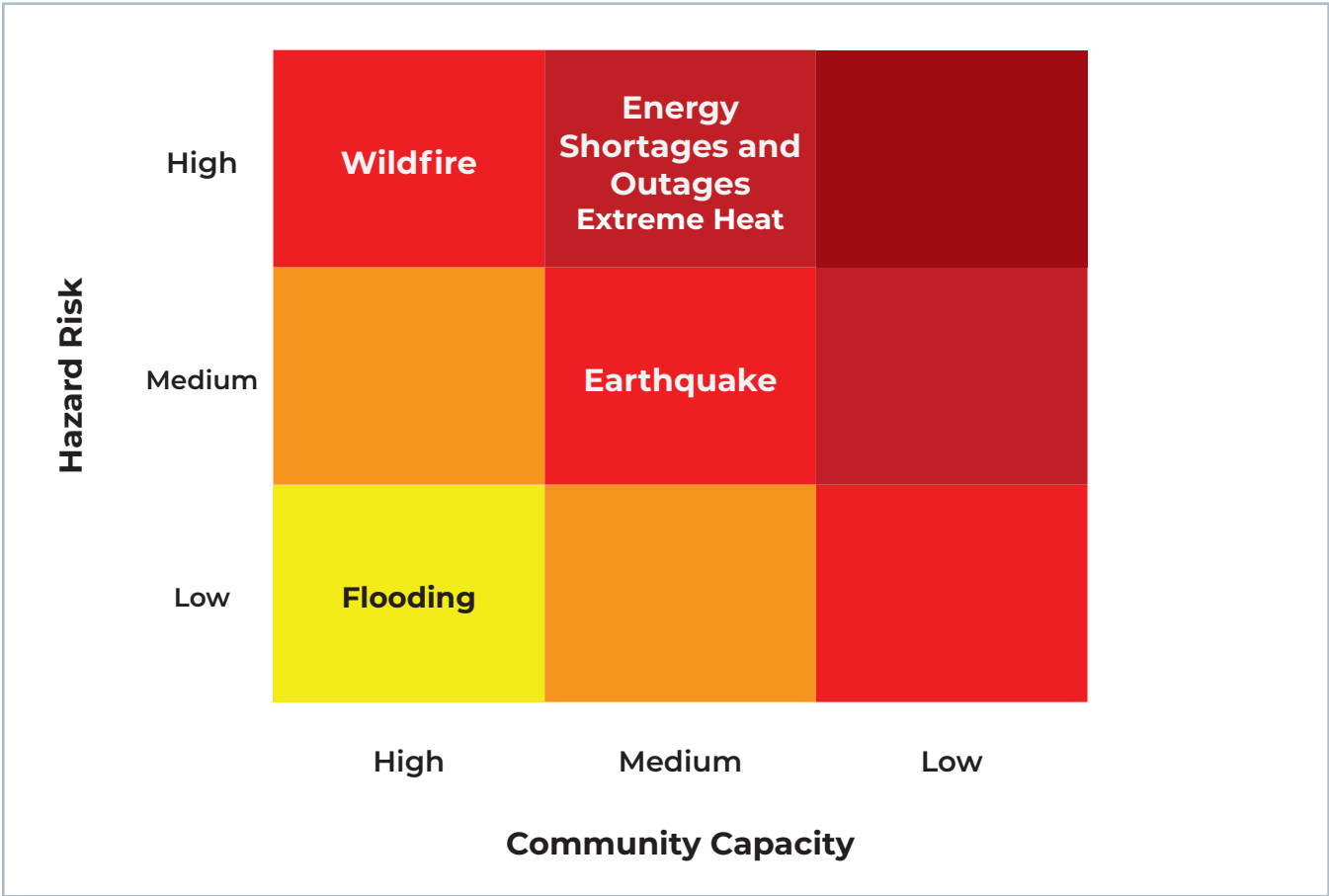
EVACUATION ROUTES

Janesville is located along U.S. 395, which allows for evacuations to the north and south. If this route is blocked or unable to be used, Standish Buntingville Road (County Route A3) could be used to evacuate to the northeast. U.S. 395 is along wildfire severity zones along the entire northeastern Janesville border and is within an Alquist-Priolo zone along the southeastern border of Janesville. Standish Buntingville Road (County Route A3) is in a wildfire severity zone and an Alquist-Priolo zone where it intersects with U.S. 395. Routes to the south are bordered by a very high fire hazard severity zone, and routes north run through various levels of severity zones, but routes to the northeast stay relatively clear from fire hazard severity zones.

Summary of Findings

Janesville is most at risk from energy shortages and outages, extreme heat, and wildfire (see **Figure 2-16**). All are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to renters and young children, both of which live in Janesville at higher rates than the County as a whole.

Figure 2-16 – Hazard Risk in Janesville



EARTHQUAKE

There is an Alquist-Priolo zone along a portion of the northern border on the eastern side of Janesville. Although there are no critical assets within the Alquist-Priolo zone, there are some developed land uses within and north of Janesville, which would be subject to additional building regulations. Janesville has a slightly higher proportion of renters than the Lassen County average. Renters may have a more difficult time recovering if displaced after an earthquake.

ENERGY SHORTAGE AND OUTAGES

Hazard events and storms, including hazards far outside of Janesville, could cause power lines to be knocked down and result in power outages in this community. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives. This is less of a special concern in Janesville, given the lower proportion of people with disabilities and older adults living alone relative to County averages.

EXTREME HEAT

Historically, Janesville had 4 extreme heat days a year and is projected to experience 16 extreme heat days a year by 2050.²⁰ Historically, heat waves lasted 2.6 days and are projected to increase to 6.9 days between 2020 and 2050.²¹ In Janesville, there is a higher slightly proportion of young children than the Lassen County average; however, Janesville does not have any significant vulnerable populations.

FLOODING

The 100-year flood zone in Janesville abuts the Elysian Creek; however, the majority of the developed areas in Janesville are not in an area of flood risk. If severe flooding occurred, evacuation could be difficult because U.S. Highway 395 is also within the 100-year flood zone. No critical facilities are located in a flood zone. The high proportion of renters in Janesville are more likely to be displaced as a result of a flood damaging their residence because renters often have less insurance and recovery aid than homeowners.

WILDFIRE

Nearly all of Janesville is within a very high wildfire severity zone. High and moderate wildfire severity zones cover all of the northern portion of Janesville, which is made up of rural residential and institutional land uses. Janesville Elementary and the Janesville Fire Protection District are both located along the border between the very high fire hazard severity zone and the moderate fire hazard severity zone (see **Figure 2-17**). Janesville has had multiple wildfires within its community boundaries over the last 100 years, and has more recently had fires within a few miles of the community (see **Figure 2-18**).

Renters make up nearly one-third of Janesville's households, and they may be displaced or more impacted after a wildfire. Young children may also be particularly sensitive to smoke and should be given special consideration during and after a wildfire.²²

Janesville is home to the Janesville Fire Protection Special District, which is in charge of providing services related to fire protection in Janesville. Janesville has had fuel treatments and structural ignitability assessments since 2014. More recently, Janesville has been sited with planned fire mitigation treatments, including developing defensible space around homes and 200 acres of landscape scale fuel treatments. Homes and evacuation corridors will be prioritized in this treatment.²³ Janesville is considered a certified Firewise Community.²⁴

²⁰ Cal-Adapt 2021.

²¹ Cal-Adapt 2021.

²² EPA 2019.

²³ Lassen Fire Safe Council, Inc. 2018. *Lassen County Community Wildfire Protection Plan 2017 Work Plan*. September 2018. <https://www.lassenfiresafecouncil.org/wp-content/uploads/2018/01/2017-CWPP-Work-Plan-reduced.pdf>.

²⁴ NFPA 2021.

Figure 2-17. Wildfire Hazard Severity Zones in Janesville

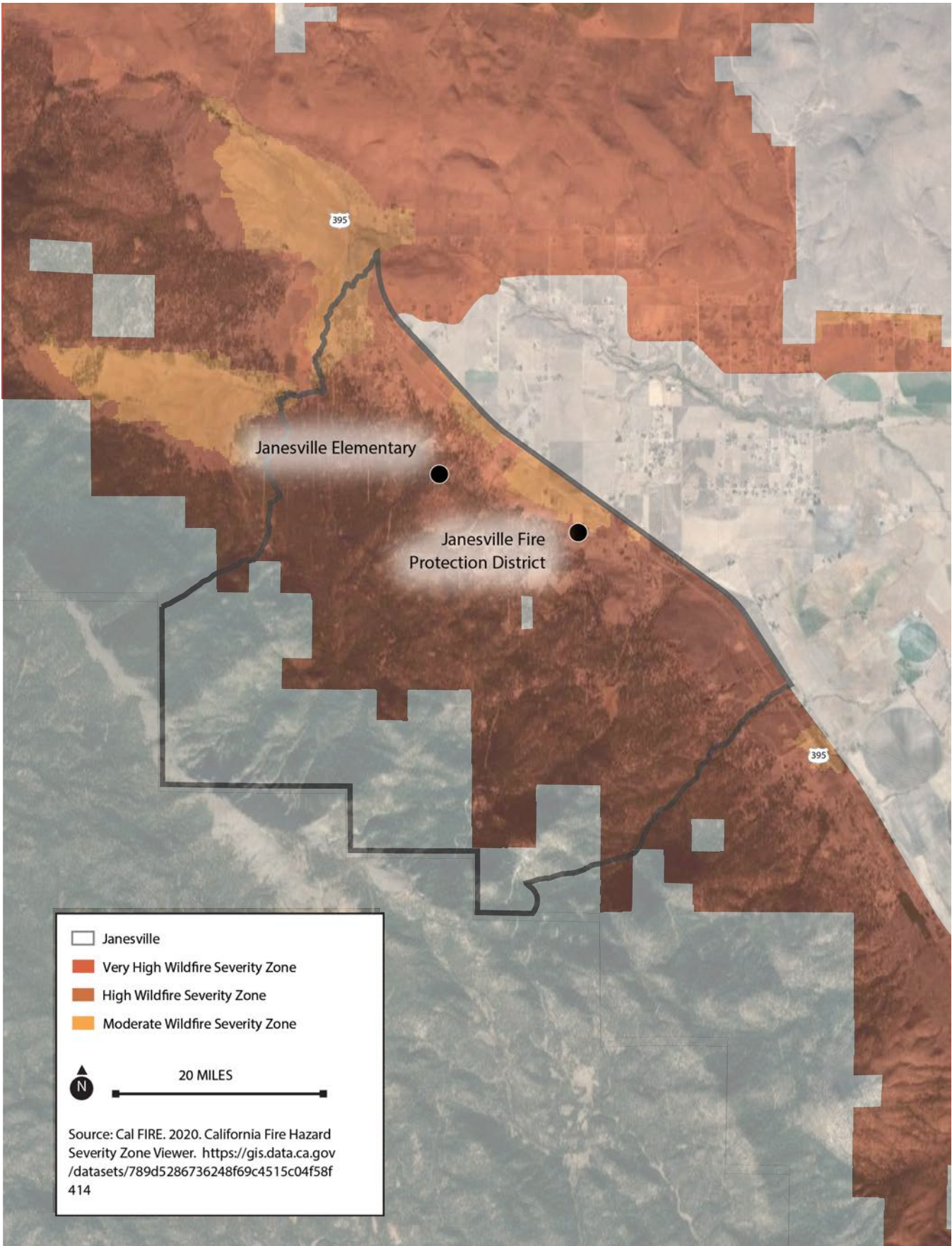
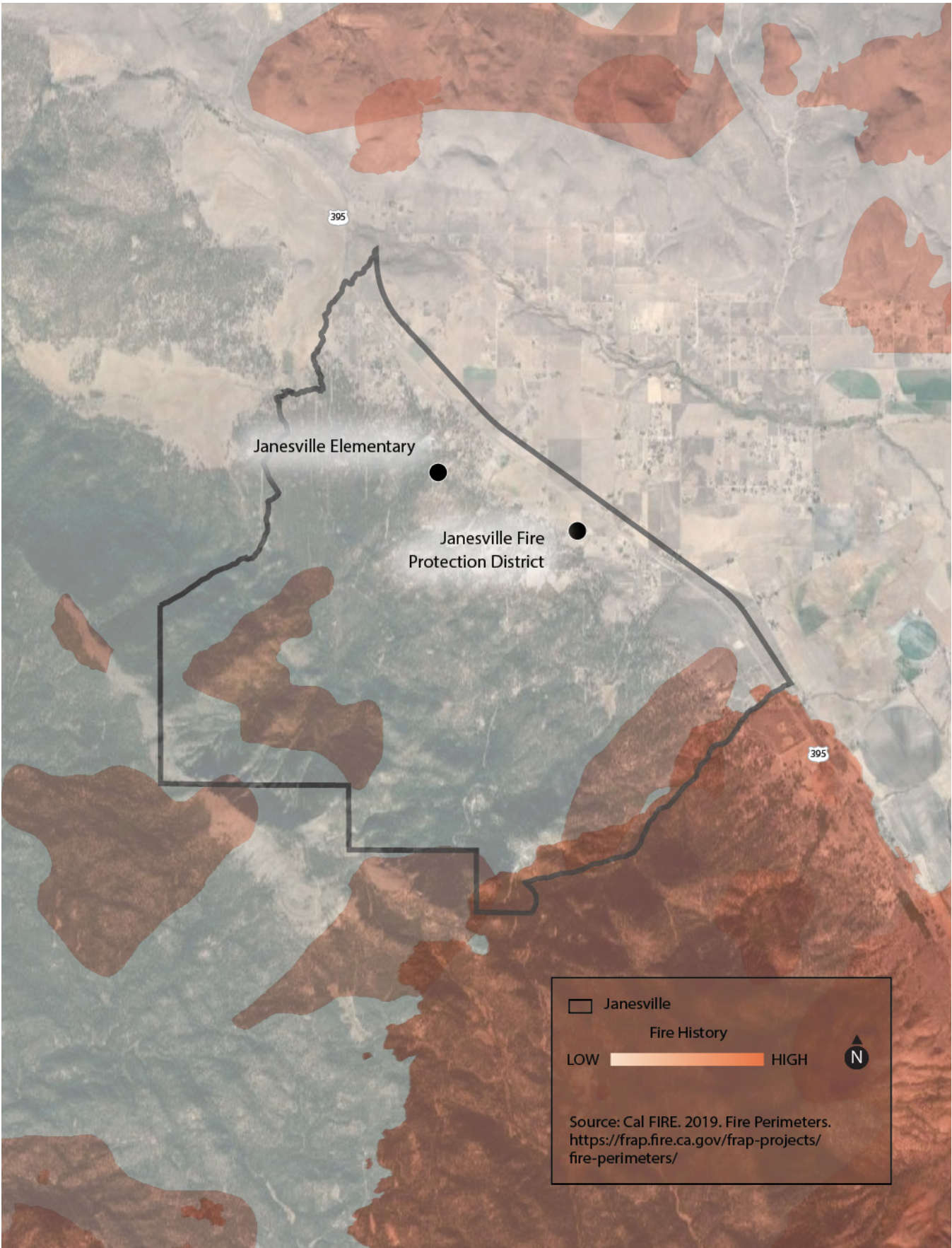


Figure 2-18. Historic Wildfires in Janesville



LAKE FOREST

Introduction

Lake Forest is a small community in Southern Lassen County, south of Eagle Lake. Lake Forest is not recognized by the U.S. Census Bureau; therefore, specific population data is not available. Lake Forest is most at risk from wildfire because the entire community is in the very high wildfire severity zone. Similar to nearby communities, it can be assumed that Lake Forest is also at high risk for energy shortages and outages extreme heat events.

Hazard Assessment

Table 2-16 shows the potential hazards in Lake Forest and how likely they are to occur in the next 30 years. Lake Forest is most at risk from wildfire, energy shortages and outages, and extreme heat.

Table 2-16 – Hazards in Lake Forest

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Low
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Lake Forest has no critical assets.

VULNERABLE POPULATIONS

As stated above, specific population data is not available for Lake Forest.

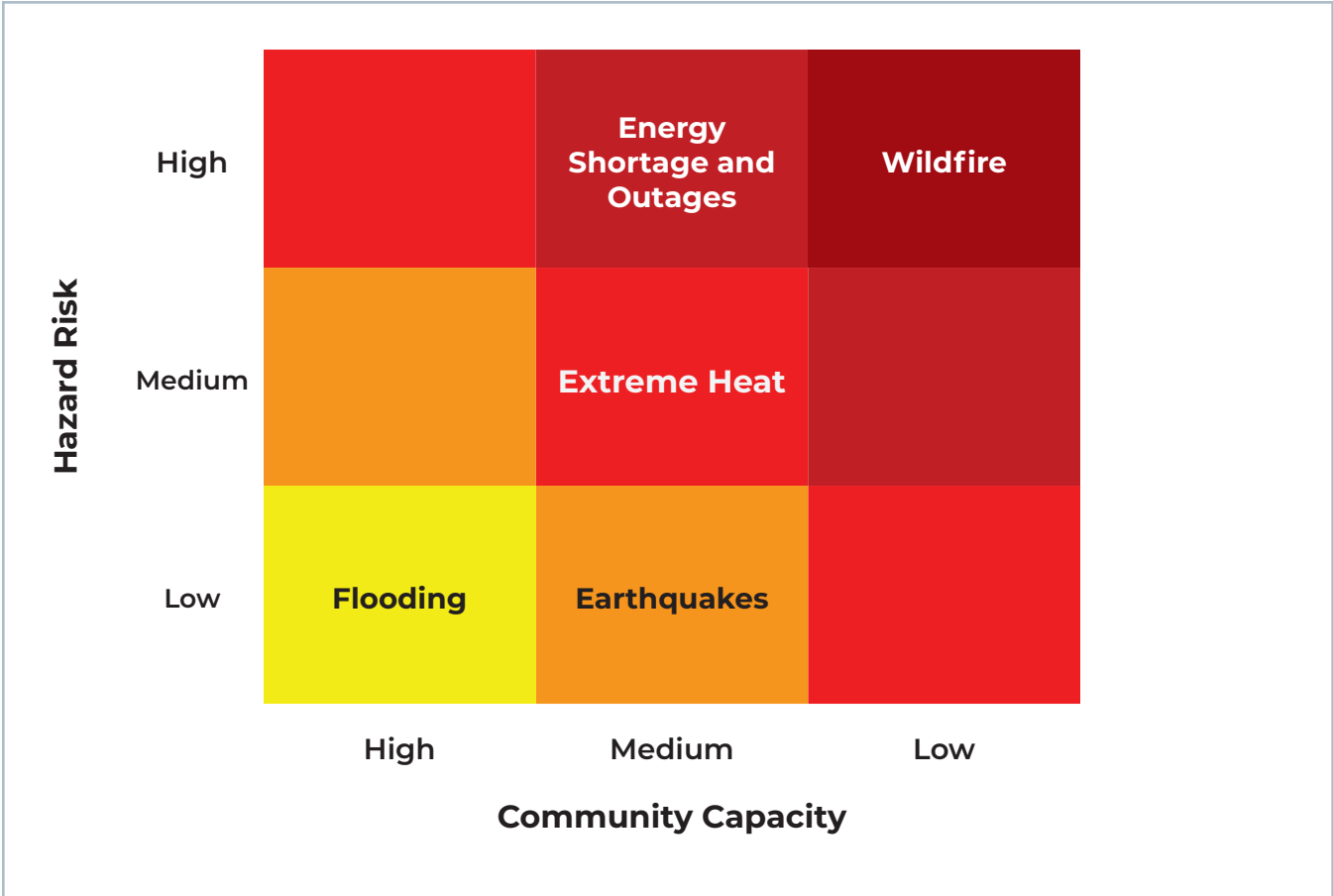
EVACUATION ROUTES

Evacuation routes run north/south on Lake Forest Drive and east/west on Eagle Lake Road (County Route A1). Both are forested roads in the very high fire hazard severity zone.

Summary of Findings

Lake Forest is most at risk from wildfire, extreme heat, and energy shortages and outages (see **Figure 2-19**). All three all likely to occur between the years 2020 and 2050 at a scale that would disrupt community life.

Figure 2-19 – Hazard Risk in Lake Forest



ENERGY SHORTAGE AND OUTAGES

Hazard events and storms, including hazards far outside of Lake Forest, could cause power lines to be knocked down and result in power outages. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives.

EXTREME HEAT

Similar to Lassen County as a whole, extreme heat days are anticipated to happen more often, and heat waves are forecasted to last longer.

FLOODING

No developed areas in Lake Forest are within a flood zone.

WILDFIRE

The entire single-family residential community of Lake Forest is within a very high wildfire severity zone. Lake Forest is not a certified Firewise Community and does not have a specific Community Fire Safe Plan, but is within the jurisdiction of the County CWPP. Fire protection services are provided for Lake Forest by the Lake Forest Fire Protection District.

LITCHFIELD

Introduction

Litchfield is a community located on the southeastern portion of Lassen County, between Shaffer Mountain and Honey Lake. As of 2019, 205 people call Litchfield their home.²⁵ The community of Litchfield is most at risk of extreme heat and flooding. Litchfield has a strong presence of older adults living alone relative to the County, who are vulnerable to wildfire and extreme heat. Litchfield’s has two critical assets, Shaffer Elementary School and a 60 kV transmission line, which are both located in the moderate wildfire severity zones.

Hazard Assessment

Table 2-17 shows the potential hazards in Litchfield and how likely they are to occur in the next 30 years. Litchfield is likely to experience extreme heat, energy shortages and outages, flooding, and wildfire before 2050, and may experience an earthquake.

Table 2-17 – Hazards in Litchfield

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	High
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Litchfield has three critical assets, a transmission line, Honey Lake Power, and Shaffer Elementary School, as shown in **Table 2-18**. Honey Lake Power is not directly within the communities of Standish or Litchfield, but it is nearby to the east and provides emergency power in case of wildfire or other outages.

Table 2-18 – Critical Assets in Litchfield

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	60 kV Transmission Line	Wildfire
	Honey Lake Power	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	Shaffer Elementary School	Energy Shortages, Extreme Heat, and Wildfire

25 U.S. Census Bureau 2019.

VULNERABLE POPULATIONS

As shown in **Table 2-19**, Litchfield has a high proportion of older adults living alone and young children than the County as a whole.²⁶ These community members are vulnerable to all hazards because they have a difficult time evacuating. Older adults also often die at higher rates than the general population during extreme heat events.

Table 2-19 – Vulnerable Populations in Litchfield

Vulnerable Population	Presence in Litchfield	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	10.7%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Non-English-Speaking Households ²	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	10.7%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	17.3%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	9.3%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

¹ Percent with a disability out of total civilian noninstitutionalized population.

U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.

² Percent limited English-speaking households out of all households.

U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.

³ Percent of renter-occupied housing units out of all occupied housing units.

U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.

⁴ Percent of householders living alone that are 65 years and over, out of total households.

U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.

⁵ Percent of total population under 5 years.

U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

EVACUATION ROUTES

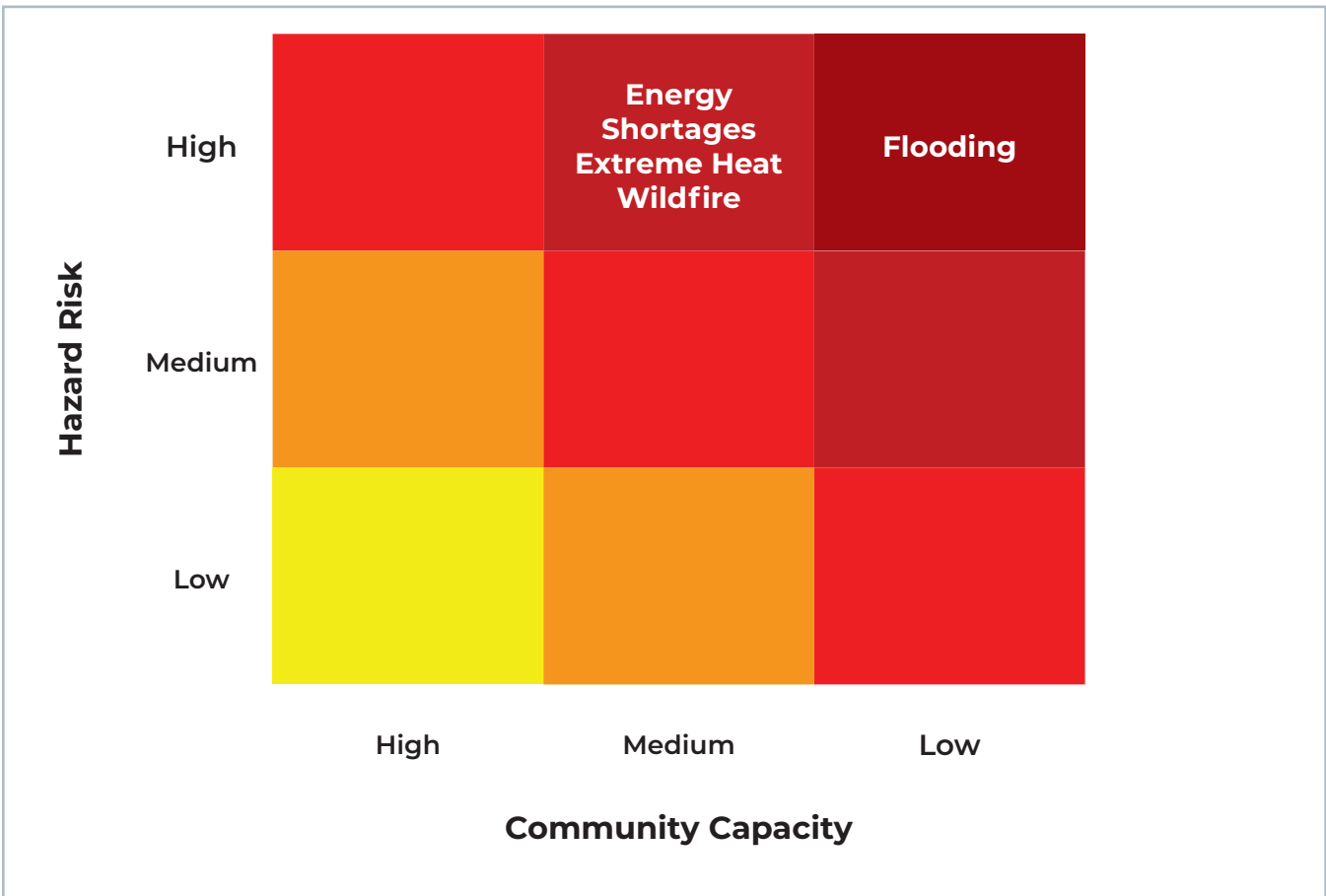
Litchfield has multiple routes for potential evacuations. Each would occur by traveling on A27 northwest or to the north or southwest onto U.S. 395. U.S. 395 allows for evacuation to the east or west. Eastbound U.S. 395 provides addition evacuation to the north. Evacuation to the east and west would traverse through moderate wildfire hazard severity zones, but south of Litchfield is free from wildfire hazard severity zones.

Summary of Findings

Litchfield is most at risk from energy shortages and outages, extreme heat, flooding, and wildfire (see **Figure 2-20**). All are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to older adults living alone and young children, both of which live in Litchfield at higher rates than the County as a whole.

²⁶ It is likely that many older adults living alone also have disabilities, and there is significant overlap between these groups.

Figure 2-20 – Hazard Risk in Litchfield



ENERGY SHORTAGE AND OUTAGES

Hazard events and storms, including hazards far outside of Litchfield, could cause power lines to be knocked down and result in power outages in Litchfield. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives.

EXTREME HEAT

Historically, Litchfield had 4 extreme heat days a year and is projected to experience 15 extreme heat days a year by 2050.²⁷ Historically, heat waves lasted 2.5 days and are projected to increase to 6.3 days between 2020 and 2050. Litchfield also has a significant number of older adults living alone, who are more susceptible to extreme heat events. Older adults are more likely to suffer from heat stroke due to their age and physical health, and older adults living alone are less likely to have someone check in on them during a heatwave and help them seek medical attention when they start showing signs of heat-related illness.

27 Cal-Adapt 2020.

FLOODING

The 100-year flood zones abuts the southern portion of Litchfield, including some developed areas, and no critical assets. Older adults may have a harder time evacuating in an event of a flood. No critical assets are in the flood zone.

WILDFIRE

The majority of Litchfield's parcels designated as rural residential and town center are within a moderate wildfire severity zone (see **Figure 2-21**). There have been wildfires on the outskirts of Litchfield (see **Figure 2-22**). Similar to flooding, Litchfield has a high number of older adults living alone, who likely will have a more difficult time evacuating. Shafter Elementary School and Honey Lake Power are both critical assets in the moderate wildfire severity zone. The Standish-Litchfield Community Fire Safe Plan was adopted in 2004, and includes guidelines for defensible space, including residential protection measures and building regulation. Litchfield is not a certified Firewise Community at this time. Litchfield is provided fire protection services by the Standish-Litchfield Fire Protection District.



Google Earth image of Litchfield, Lassen County, CA

Figure 2-21. Wildfire Hazard Severity Zones in Litchfield

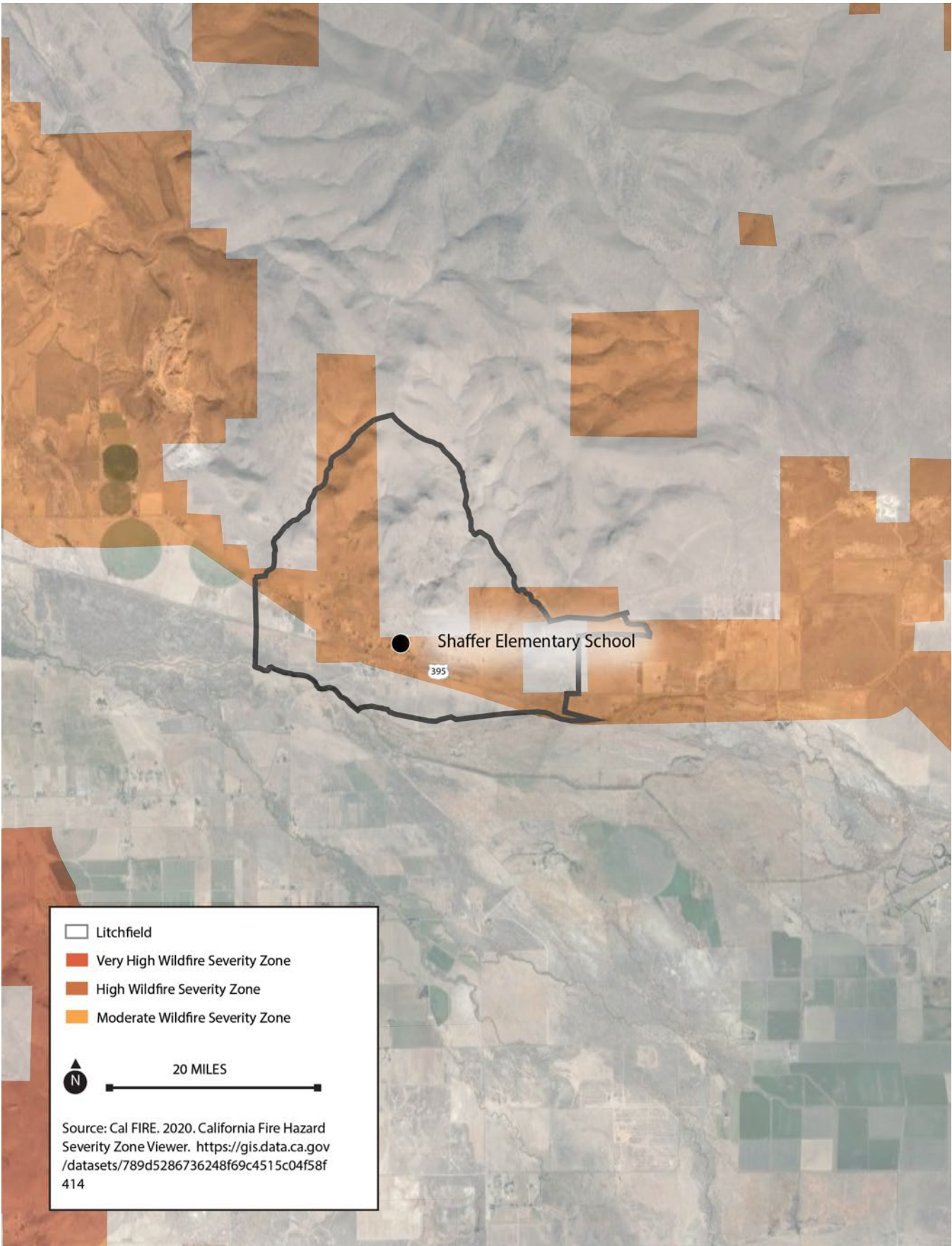
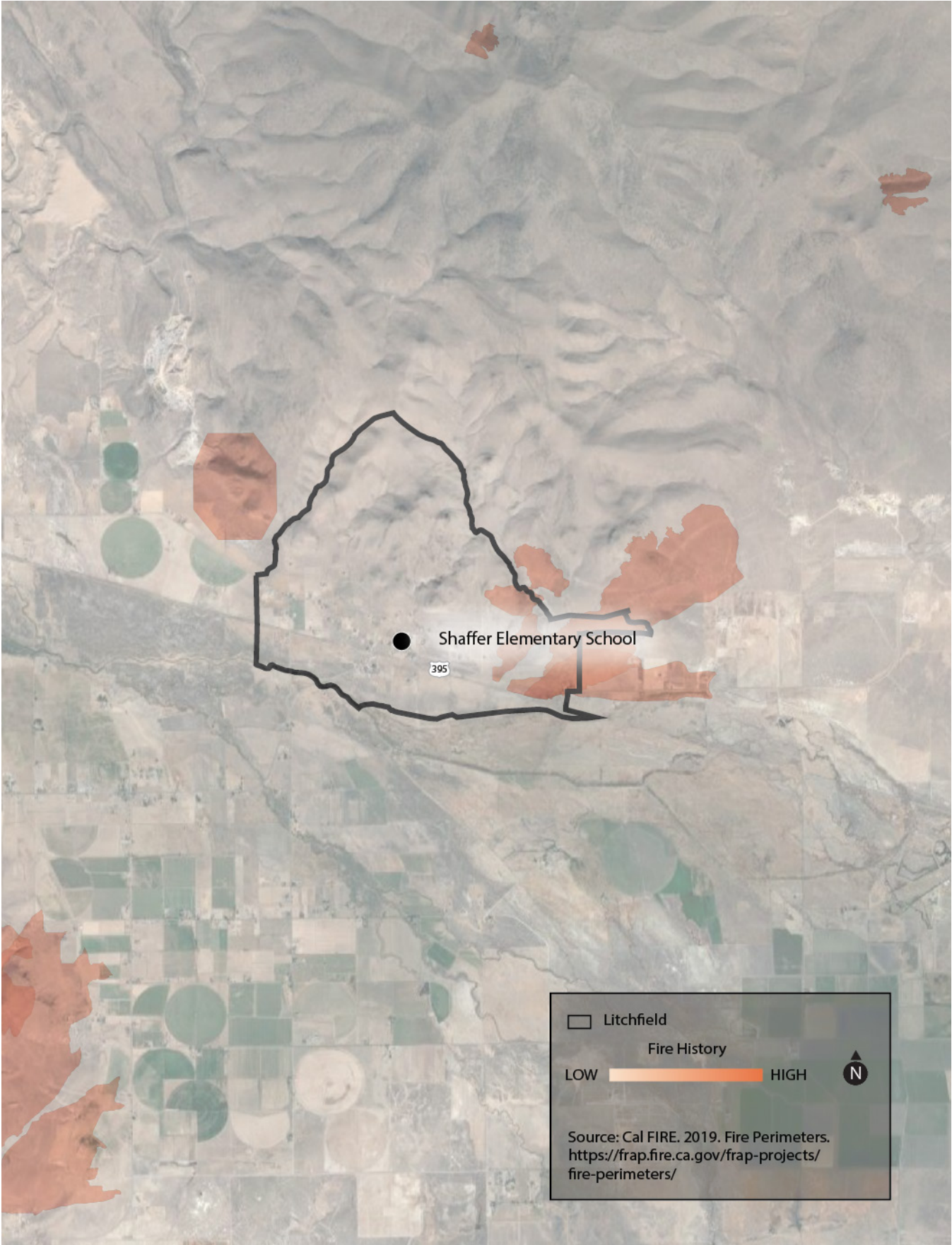


Figure 2-22. Historic Wildfires in Litchfield



LITTLE VALLEY

Introduction

Little Valley is a community in northern Lassen County situated along Horse Creek. As of 2019, 26 people call Little Valley their home.²⁸ The community of Little Valley is most at risk of wildfire and energy shortage and outages. Little Valley has a strong presence of people with disabilities and renters compared to the County. Both groups of people are vulnerable to wildfire and energy shortages and outages. Little Valley is primary a residential community, with no major highways and one fire department.

Hazard Assessment

Table 2-20 shows the potential hazards in Little Valley and how likely they are to occur in the next 30 years. Little Valley is likely to experience energy shortages and outages, extreme heat and wildfire by 2050, and may experience an earthquake or flooding.

Table 2-20 – Hazards in Little Valley

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Medium
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Little Valley has one critical asset, the Little Valley Fire Department, as shown in **Table 2-21**. The Little Valley Fire Department is within the moderate wildfire severity zone.

Table 2-21 – Critical Assets in Little Valley

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Little Valley Fire Department	Wildfire, Energy Shortages
	Little Valley Community Services District	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	None	N/A

28 U.S. Census Bureau 2019.

VULNERABLE POPULATIONS

As shown in **Table 2-22**, Little Valley has a high proportion of renters and people with disabilities.²⁹ People with a disability are vulnerable to all hazards because they have a difficult time evacuating due to medical needs, and suffer more severe health effects from power outages if they are medically dependent on medical machines or refrigeration for medication. Renters may have a harder time recovering from fires and floods because they may lack insurance or face difficulty in relocating from a damaged property.

Table 2-22 – Vulnerable Populations in Little Valley

Vulnerable Population	Presence in Little Valley	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	46.2%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English-Speaking Households ²	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	53.8%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	0.0%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	0.0%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

EVACUATION ROUTES

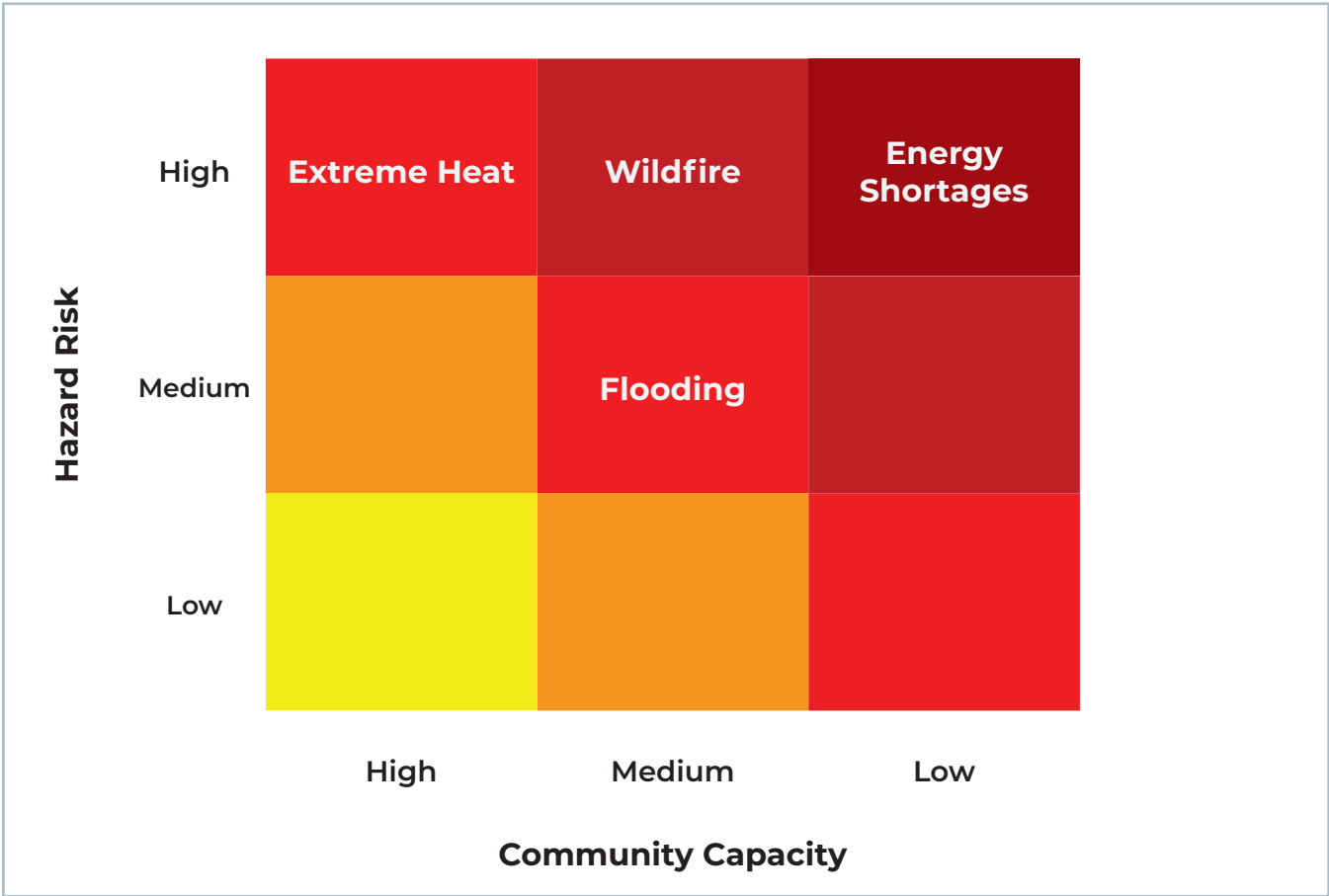
Evacuations from Little Valley can evacuate northbound on Little Valley Road (Forest Route 35N01), westbound through Loomis Cabin Road, and southbound through Black Gulch Road and Little Valley Road (Forest Route 35N05). Evacuations to the north and east go through moderate fire hazard severity zones, whereas evacuations to the west go through very high fire hazard severity zones.

Summary of Findings

Little Valley is most at risk from energy shortages and outages, extreme heat, and wildfire (see **Figure 2-23**). All are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to people with disabilities and renters, both of which live in Little Valley at higher rates than the County as a whole.

29 It is likely that many older adults living alone also have a disability, and there is significant overlap between these groups.

Figure 2-23 – Hazard Risk in Little Valley



ENERGY SHORTAGE AND OUTAGES

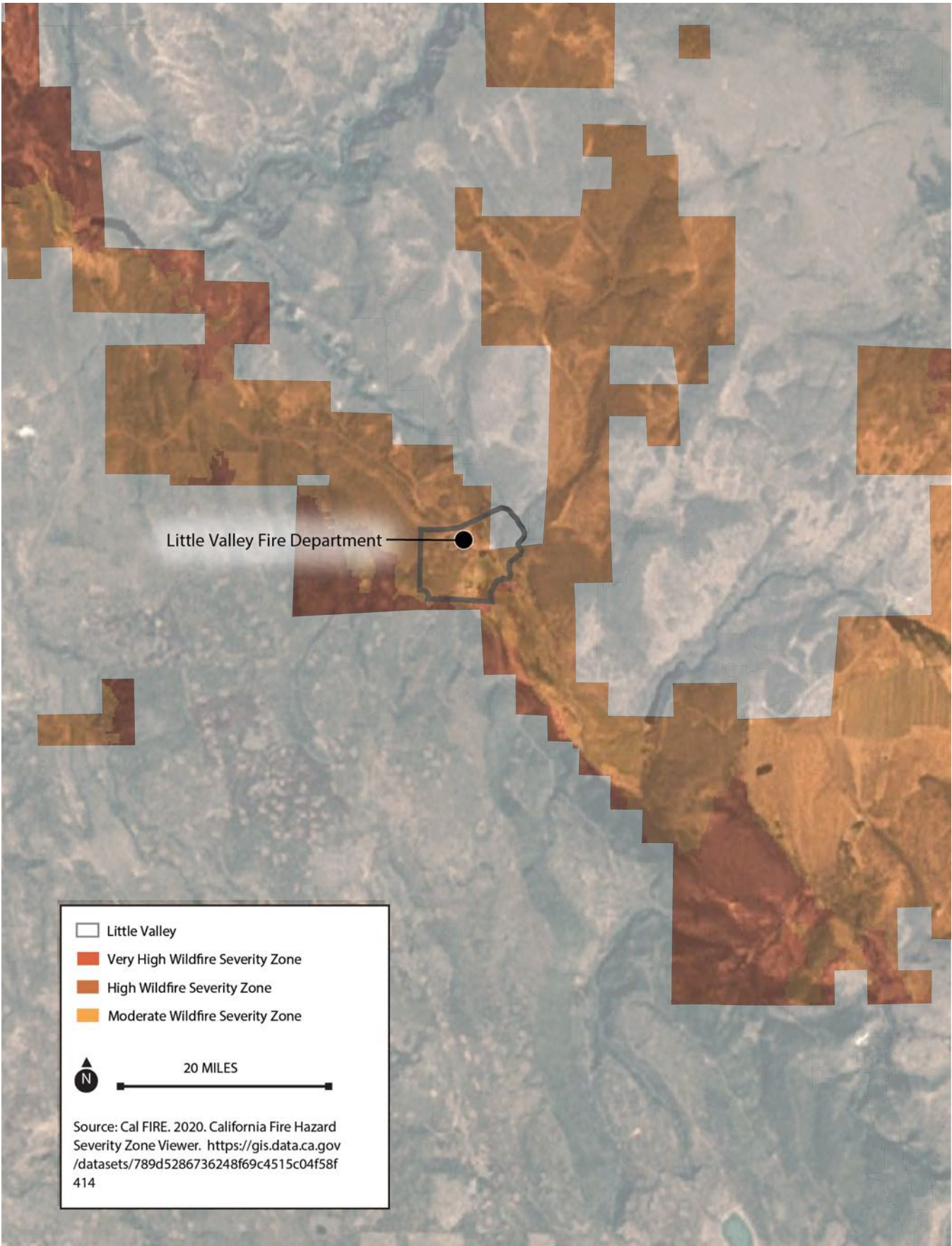
Hazard events and storms, including hazards far outside of Little Valley, could cause power lines to be knocked down and result in power outages in Little Valley. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives. This is of special concern in Little Valley, given the large proportion of people with disabilities who may be medically dependent on machines or refrigeration.

EXTREME HEAT

Historically, Little Valley had 4 extreme heat days a year and is projected to experience 6.9 extreme heat days a year by 2050.³⁰ Historically, heat waves lasted 2.4 days and are projected to increase to 6.9 days between 2020 and 2050. Little Valley does not have populations that are especially susceptible to extreme heat.

30 Cal-Adapt 2020.

Figure 2-24. Wildfire Hazard Severity Zones in Little Valley



FLOODING

The 100-year flood zones abuts the northeast portion of Little Valley along Horse Creek, but includes no developed areas and no critical assets. Older adults may have a harder time evacuating in an event of a flood.

WILDFIRE

All of Little Valley is designated for extensive agriculture as the land use, but much of it is occupied by single-family development. The majority of Little Valley is within a moderate wildfire severity zone, including the Little Valley Fire Department. A smaller portion of the single-family parcels in Little Valley are in high and very fire hazard severity zones. Additionally, Little Valley has a high number of people with disabilities, who likely will have a more difficult time evacuating, as well as renters who may have a harder time rebuilding after a wildfire. Little Valley has a Firewise board that helps prepare for wildfires, and is a certified Firewise Community. Fire protection services are provided to Little Valley by the Little Valley Community Services District.

MERRILLVILLE ROAD

Introduction

Merrillville Road is a small community in Central Lassen County, east of Eagle Lake. Merrillville Road is not recognized by the U.S. Census Bureau; therefore, specific population data is not available. Merrillville Road is most at risk from wildfire because the entire community is in the high wildfire severity zone. Similar to nearby communities, it can be assumed that Merrillville Road is also high risk for energy shortages and outages and extreme heat events.

Hazard Assessment

Table 2-23 shows the potential hazards in Merrillville Road and how likely they are to occur in the next 30 years. Merrillville Road is most at risk from wildfire, energy shortages and outages, and extreme heat.

Table 2-23 – Hazards in Merrillville Road

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Low
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Merrillville Road has no critical assets.

VULNERABLE POPULATIONS

As stated above, specific population data is not available for Merrillville.

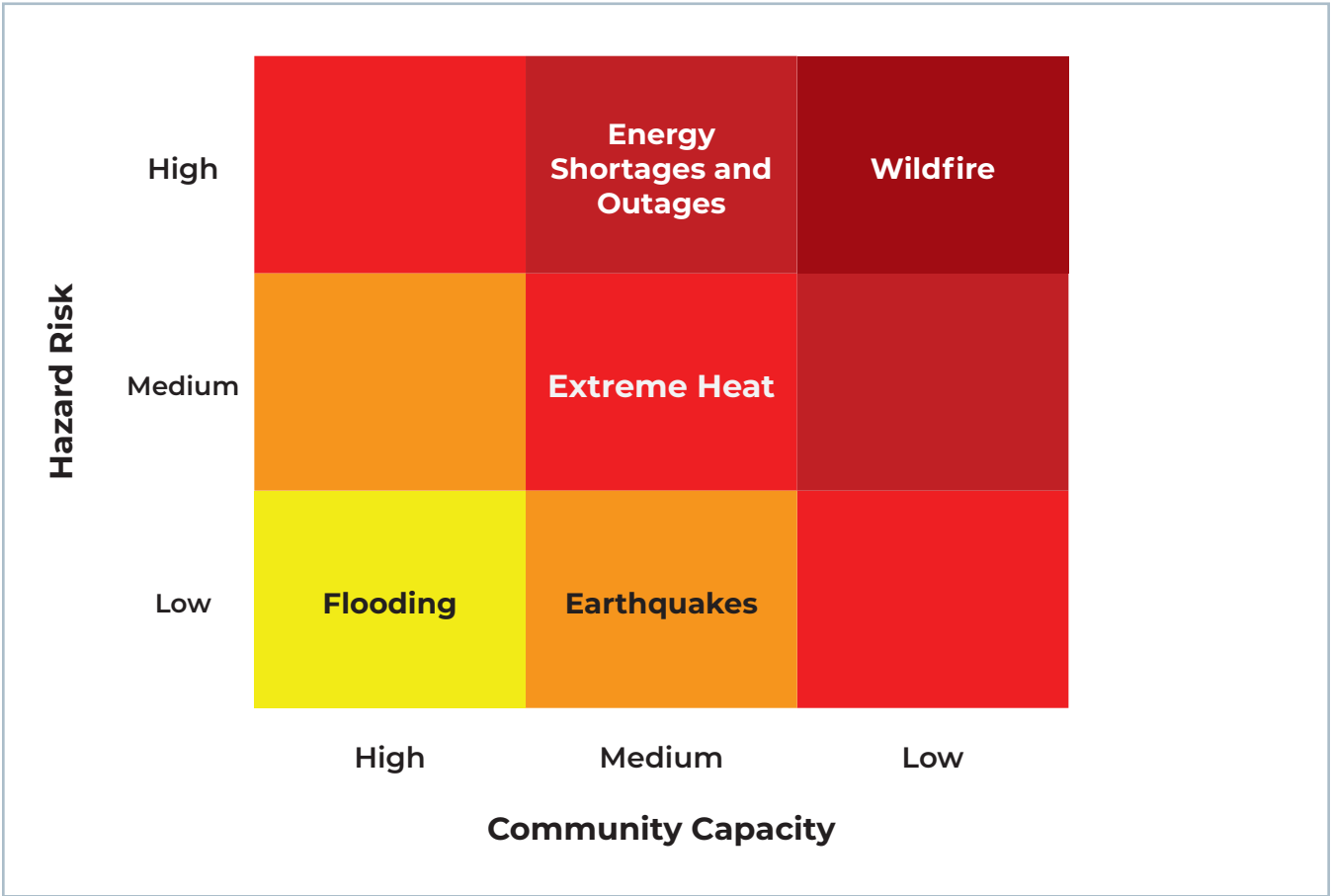
EVACUATION ROUTES

All evacuation would occur on Merrillville Road, which runs eastward through moderate and high fire hazard severity zones and westward through high and very high fire hazard severity zones. If this road were closed, evacuations would be severely impacted.

Summary of Findings

Merrillville Road is most at risk from wildfire, extreme heat, and energy shortages and outages (see **Figure 2-25**). All three are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life.

Figure 2-25- Hazard Risk in Merrillville Road



ENERGY SHORTAGES AND OUTAGES

Hazard events and storms, including hazards far outside of Merrillville, could cause power lines to be knocked down and result in power outages. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages and outages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives.

EXTREME HEAT

Similar to Lassen County as a whole, extreme heat days are anticipated to happen more often, and heat waves are forecasted to last longer.

FLOODING

No developed areas in Merrillville are within a flood zone.

WILDFIRE

The entire community of Merrillville Road is single-family residential land use within a high wildfire severity zone. Merrillville Road is not considered a certified Firewise Community, but it is within the planning area for the Lassen County CWPP. The community is within the SRA.

MILFORD

Introduction

Milford is a community in southern Lassen County situated just south of Honey Lake. As of 2019, 206 people call Milford their home.³¹ The community of Milford is most at risk of wildfire and energy shortage and outages. Milford has a strong presence of families with young children relative to the County. This group of people are vulnerable to wildfire and energy shortages and outages.

Hazard Assessment

Table 2-24 shows the potential hazards in Milford and how likely they are to occur in the next 30 years. Milford is likely to experience extreme heat and wildfire before 2050, and may experience an earthquake, energy shortages and outages, or flooding.

Table 2-24 – Hazards in Milford

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Low
Wildfire	High

31 U.S. Census Bureau 2019.

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Milford has little development, and the only critical asset in the community is a 60 kV transmission line, as shown in **Table 2-25**. This transmission line runs through the community and moderate, high, and very high fire hazard severity zones.

Table 2-25 – Critical Assets in Milford

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	60 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	None	N/A

VULNERABLE POPULATIONS

As shown in **Table 2-26**, Milford has a high proportion of young children, but no other populations that may be considered vulnerable.³² Young children are most vulnerable to extreme heat and wildfire due to smoke.

Table 2-26 – Vulnerable Populations in Milford

Vulnerable Population	Presence in Milford	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	0.0%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English-Speaking Households ²	0.0%	0.8%	Wildfire, Energy Shortages
Renters ³	0.0%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	0.0%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	18.9%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

³² It is likely that many older adults living alone also have a disability, and there is significant overlap between these groups.

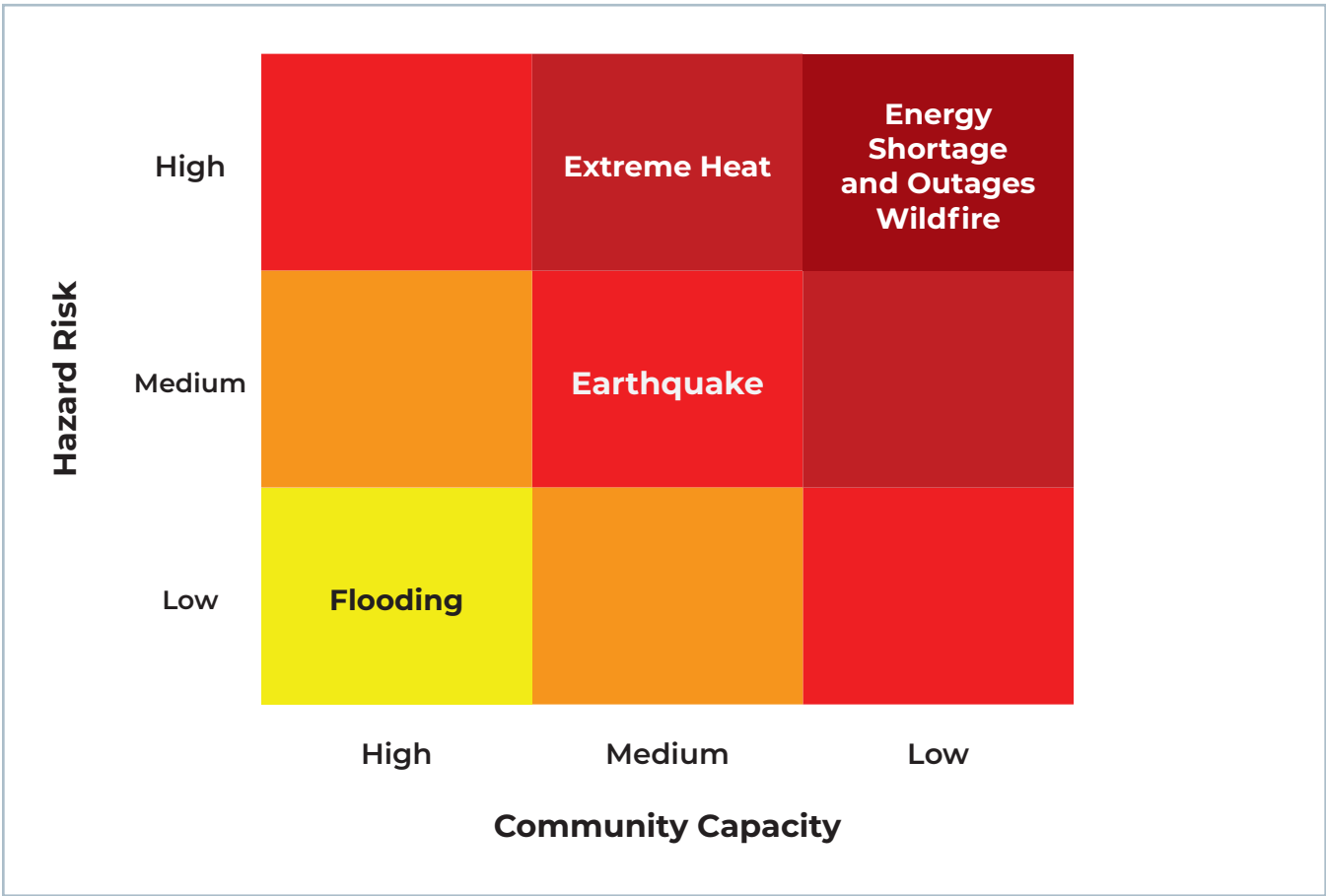
EVACUATION ROUTES

Evacuations from Milford must evacuate from Milford Grade onto U.S. 395. If either of these roads are closed by fire, evacuation would be severely hindered. To the north U.S. 395 is the border between very high fire hazard severity zone and no hazard severity zone, and to the south U.S. 395 is the border between a moderate fire hazard severity zone and no hazard severity zone.

Summary of Findings

Milford is most at risk from energy shortages and outages, extreme heat, and wildfire (see **Figure 2-26**). All are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, and pose significant risk to young children, who live in Milford at higher rates than the County as a whole.

Figure 2-26 – Hazard Risk in Milford



EARTHQUAKE

Active faults run transverse Milford. No critical assets are within the Alquist-Priolo zone, and therefore are not subject to additional building regulations.

ENERGY SHORTAGE AND OUTAGES

Hazard events and storms, including hazards far outside of Milford, could cause power lines to be knocked down and result in power outages in Milford. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages and outages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people's lives. This is of special concern in Milford, given the large proportion of older adults who may be medically dependent on machines or refrigeration.

EXTREME HEAT

Historically, Milford had 4 extreme heat days a year and is projected to experience 18 extreme heat days a year by 2050.³³ Historically, heat waves lasted 2.6 days and are projected to increase to 7.7 days between 2020 and 2050. Young children may be more vulnerable to extreme heat, and should be considered in hazard planning; however, Milford does not have a large proportion of older adults, who are the primary population of concern.

FLOODING

Milford is just south of Honey Lake, which is in Zone A, an area with a 1% annual chance of flooding (see **Figure 2-27**). However, the developed areas within Milford are under Zone X, an area determined to be outside the 500-year flood zone, and protected by levee from 100-year flooding.

WILDFIRE

A portion of central Milford is within moderate, high, and very High fire hazard severity zones. All of the land in fire hazard severity zones is designated for extensive agriculture; however, there are some sparse residential developments within high and very high wildfire severity zones, with more densely developed residential areas located adjacent to the wildfire severity zones. Additionally, Milford has a high proportion of households with young children, who likely will have a more difficult time evacuating and are more vulnerable to smoke caused by wildfire. Milford is considered a certified Firewise Community and is within the planning area for the Lassen County CWPP. Fire protection services in Milford are provided by the Milford Fire Protection District.

33 Cal-Adapt 2020.

Figure 2-27. Flood Zones in Milford



NUBIEBER

Introduction

Nubieber is a community located in the northwestern portion of Lassen County. As of 2019, 35 people call Nubieber their home.³⁴ The community of Nubieber is most at risk of energy shortages and outages, extreme heat, flooding, and wildfire. Nubieber has a strong presence of older adults living alone relative to the County. This group of people is vulnerable to earthquakes, energy shortages and outages, extreme heat, flooding, and wildfire. There are no critical assets located in Nubieber.

Hazard Assessment

Table 2-27 shows the potential hazards in Nubieber and how likely they are to occur in the next 30 years. Nubieber is likely to experience energy shortages and outages, extreme heat, flooding, and wildfire before 2050.

Table 2-27 – Hazards in Nubieber

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	High
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

The one critical asset located in Nubieber is a 60 kV transmission line, as shown in **Table 2-28**. This transmission line runs through moderate fire hazard severity zones just north of Nubieber.

Table 2-28 - Critical Assets in Nubieber

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	60 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	None	N/A

34 U.S. Census Bureau 2019.

VULNERABLE POPULATIONS

As shown in **Table 2-29**, Nubieber has a high proportion of older adults living alone. It is likely that many older adults living alone also have a disability, and there may be significant overlap between these groups. Older adults living alone are vulnerable to all hazards, particularly because they may have a difficult time evacuating due to medical needs. Older adults also often die at higher rates than the general population during extreme heat events.

Table 2-29 - Vulnerable Populations in Nubieber

Vulnerable Population	Presence in Nubieber	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	11.4%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages
Limited English Speaking Households ²	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	18.8%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁴	25.0%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁵	0.0%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁵ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

EVACUATION ROUTES

Evacuations from Nubieber must evacuate onto SR-299. Kramer Road and Babcock Road serve as main access roads within Nubieber. If either of these roads is closed such that residents would not be able to access SR-299, then evacuation would be severely hindered. If northbound travel along SR-299 is blocked in Nubieber, an alternate route would be by traveling north on Kramer Road, then turning right onto 4 Corners Road to arrive in Bieber. If southbound travel along SR-299 is blocked in Nubieber, an alternate route would be by traveling north on Kramer Road, then making a sharp left turn onto Hillside Station Road, then continuing south until Hillside Station Road becomes Old Cemetery Road, which will ultimately intersect with SR-299. All roads within Nubieber, as well as much of the surrounding areas, are within the 100-year flood zone (see **Figure 2-28**). The southwestern portion of SR-299 is within a moderate wildfire severity zone within the community, and a high wildfire severity zone southwest of the community. The southern portion of Babcock Road is within a moderate wildfire severity zone (see **Figure 2-29**).

Figure 2-28. Flood Zones in Nubieber

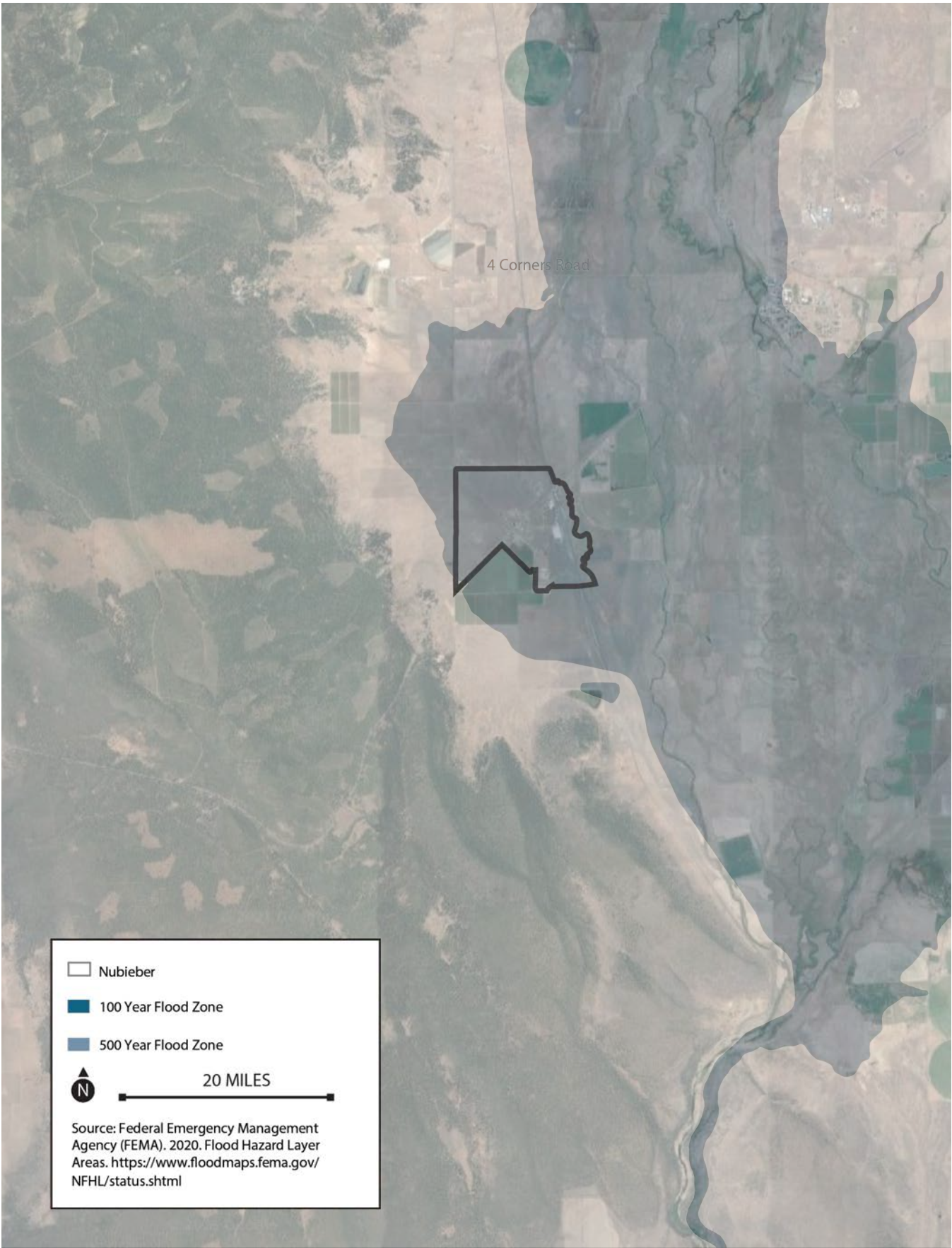
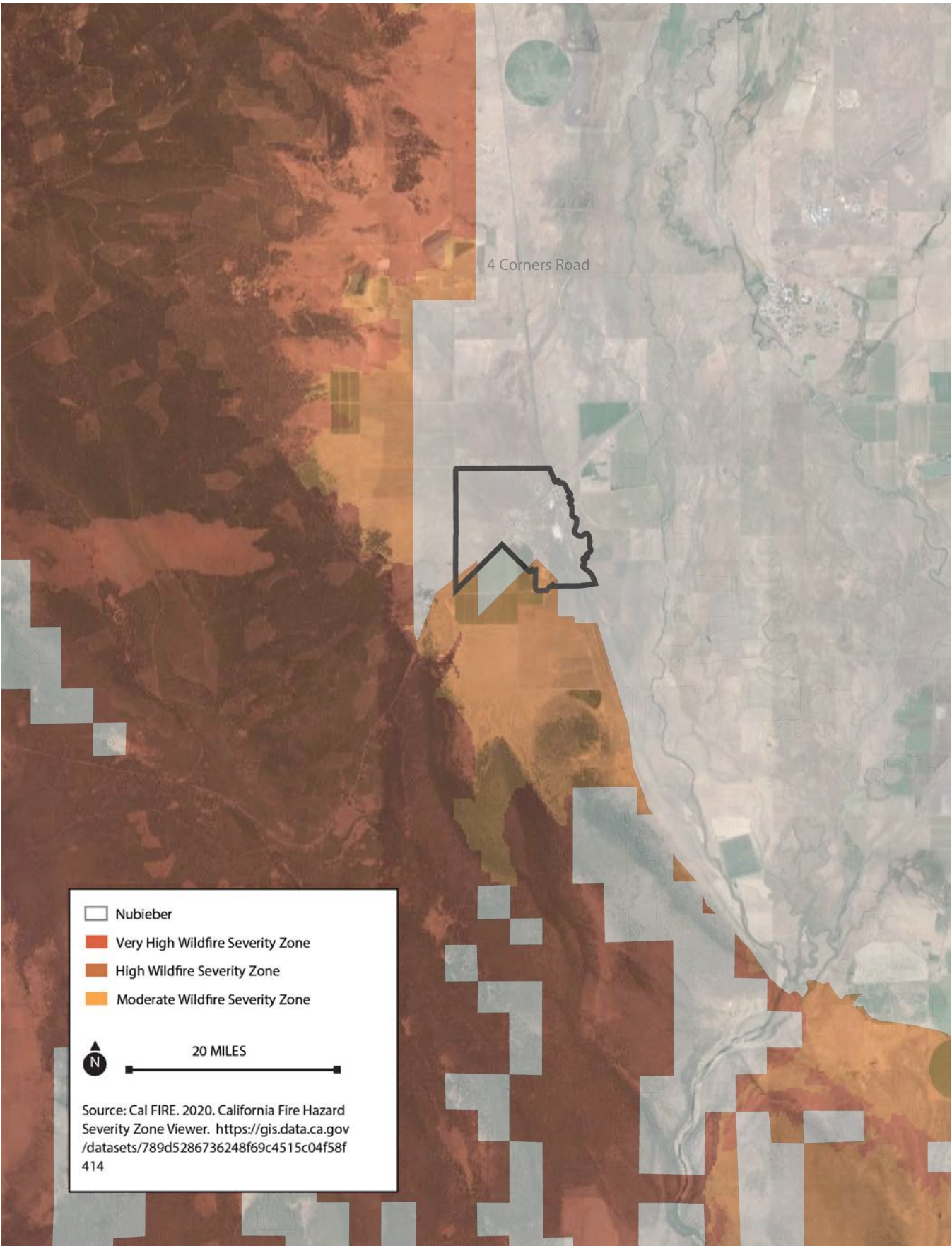


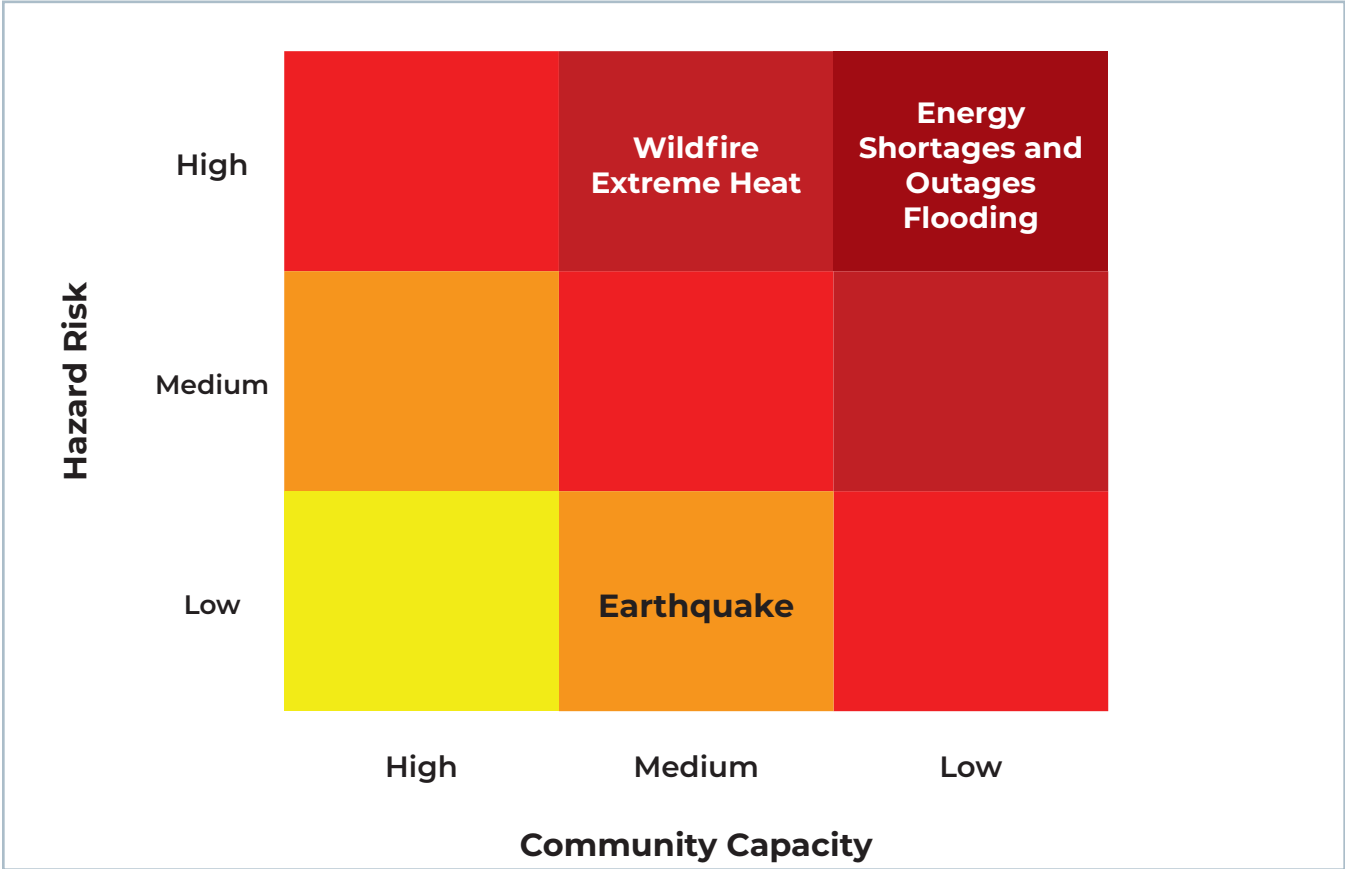
Figure 2-29. Wildfire Hazard Severity Zones in Nubieber



Summary of Findings

Nubieber is at risk from energy shortage and outages, extreme heat, flooding, and wildfire (see **Figure 2-30**). All are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, and pose significant risk to older adults living alone, which live in Nubieber at higher rates than the County as a whole.

Figure 2-30 – Hazard Risk in Nubieber



EARTHQUAKE

There are no Alquist-Priolo zones in Nubieber. However, there are Alquist-Priolo zones approximately 5 miles west of Nubieber, near the County border. If these faults resulted in a moderate earthquake, Nubieber could experience power losses, as well as building and infrastructure damage.

ENERGY SHORTAGE AND OUTAGES

Hazard events and storms, including hazards far outside of Nubieber, could cause power lines to be knocked down and result in power outages in Nubieber. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages and outages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives. This is of special concern in Nubieber, given the large proportion of older adults who may be medically dependent on machines or refrigeration.

EXTREME HEAT

Historically, Nubieber had 4 extreme heat days a year, and this community is projected to experience 18 extreme heat days a year by 2050.³⁵ Historically, heat waves lasted 2.7 days and are projected to increase to 7.4 days between 2020 and 2050.³⁶ In Nubieber, there is a higher proportion of older adults living alone than the Lassen County average. Older adults living alone are more susceptible to extreme heat events and should be given special consideration during heatwaves because this population is more likely to suffer from heat stroke due to their age and physical health. Additionally, older adults living alone are less likely to have someone check in on them during a heatwave and help them seek medical attention when they start showing signs of heat-related illness.

FLOODING

The entire community of Nubieber is within the 100-year floodplain, which includes all developed areas. Severe flooding could also block evacuation routes. Furthermore, areas adjacent to Nubieber are at risk of inundation should a breach occur for the Roberts Dam or the Taylor Creek Dam Number 1.³⁷ Nubieber has a higher proportion of older adults living alone than the Lassen County average. Older adults living alone could have a challenge evacuating, and may need additional assistance during a flood event.

WILDFIRE

The majority of developed areas in Nubieber are not within a wildfire severity zone. There are two small portions of southern Nubieber that fall within the moderate wildfire severity zone—one is along SR-299 and another is in agricultural and industrial land that has some development. All of Nubieber is designated as intensive agriculture in the general plan. The area surrounding Nubieber, particularly the forested areas to the west, north, and south, are in moderate to high wildfire severity zones. Historically, wildfires have occurred in the forested land west of Nubieber (see **Figure 2-31**).

Additionally, Nubieber has a high number of older adults living alone, who likely will have a more difficult time evacuating. Older adults may also be particularly sensitive to smoke and should be given special consideration during a wildfire.³⁸

Nubieber is provided fire protection services by the Big Valley Fire Protection District. The Lassen County Department of Community Development, CAL FIRE, and Lassen Fire Safe Council, Inc. adopted a Bieber-Nubieber Community Fire Safe Plan in 2004, which included multiple recommendations for property owners to protect their homes and to make it fire safe for themselves, their communities, and fire-fighting agencies, such as defensible space recommendations.³⁹ Nubieber is not considered a certified Firewise Community at this time.

35 Cal-Adapt 2021.

36 Cal-Adapt 2021.

37 California Department of Water Resources. (2021). *Dam Breach Inundation Map*. Retrieved October 20, 2021, from https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

38 EPA 2019.

39 Lassen Fire Safe Council, Inc. 2004c. Bieber-Nubieber Community Fire Safe Plan. January 2004. <https://www.lassenfiresafecouncil.org/wp-content/uploads/2015/02/Bieber-Nubieber-CWPP.pdf>.

Figure 2-31. Historic Wildfires in Nubieber



SPALDING

Introduction

Spalding is a community located in central Lassen County, just west of Eagle Lake. As of 2019, 108 people call Spalding home.⁴⁰ Spalding is a popular vacation community, with an increased non-resident population in the summer. Vacationers are less familiar than locals with the network of roads and evacuation procedures, and are less likely to be prepared for hazards.

Hazard Assessment

Table 2-30 shows the potential hazards in Spalding and how likely they are to occur in the next 30 years. Spalding is most at risk from wildfire, energy shortages and outages, and extreme heat. Spalding may also experience earthquakes and flooding.

Table 2-30 – Hazards in Spalding

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Medium
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Spalding has two critical assets, shown in **Table 2-31**. Both are located in hazard zones.

Table 2-31 – Critical Assets in Spalding

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	Spalding Airport	Flood; Wildfire
	Spalding Community Facilities District	Wildfire; Energy outages
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	None	N/A

40 U.S. Census Bureau 2019.

VULNERABLE POPULATIONS

As shown in **Table 2-32**, Spalding has a high proportion of older adults living alone and people with disabilities.⁴¹ These community members are vulnerable to all hazards because they have a difficult time evacuating due to medical needs. Older adults also often die at higher rates than the general population during extreme heat events. Spalding is also a vacation community, with many seasonal residences. Vacationers are often less prepared than residents because they are not as familiar with the local roads and emergency procedures.

Table 2-32 – Vulnerable Populations in Spalding

Vulnerable Population	Presence in Spalding	Presence in Lassen County	Relevant Hazards
People with Disabilities ¹	39.8%	18.4%	Flooding, Wildfire, Seismic Hazards, Energy Shortages and Outages
Limited English-Speaking Households ²	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters ³	10.5% ⁴	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone ⁵	44.7%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages
Young Children ⁶	0.0%	4.6%	Extreme Heat, Wildfire (smoke)

Notes:

- ¹ Percent with a disability out of total civilian noninstitutionalized population.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1810.
- ² Percent limited English-speaking households out of all households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1602.
- ³ Percent of renter-occupied housing units out of all occupied housing units.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP04.
- ⁴ Spalding is a vacation community and a large portion of non-residents that are neither owners nor renters are not captured in this data.
- ⁵ Percent of householders living alone that are 65 years and over, out of total households.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table S1101.
- ⁶ Percent of total population under 5 years.
U.S. Census Bureau. 2019. American Community Survey 2019: ACS 5-Year Estimates Detailed Tables. Table DP05.

EVACUATION ROUTES

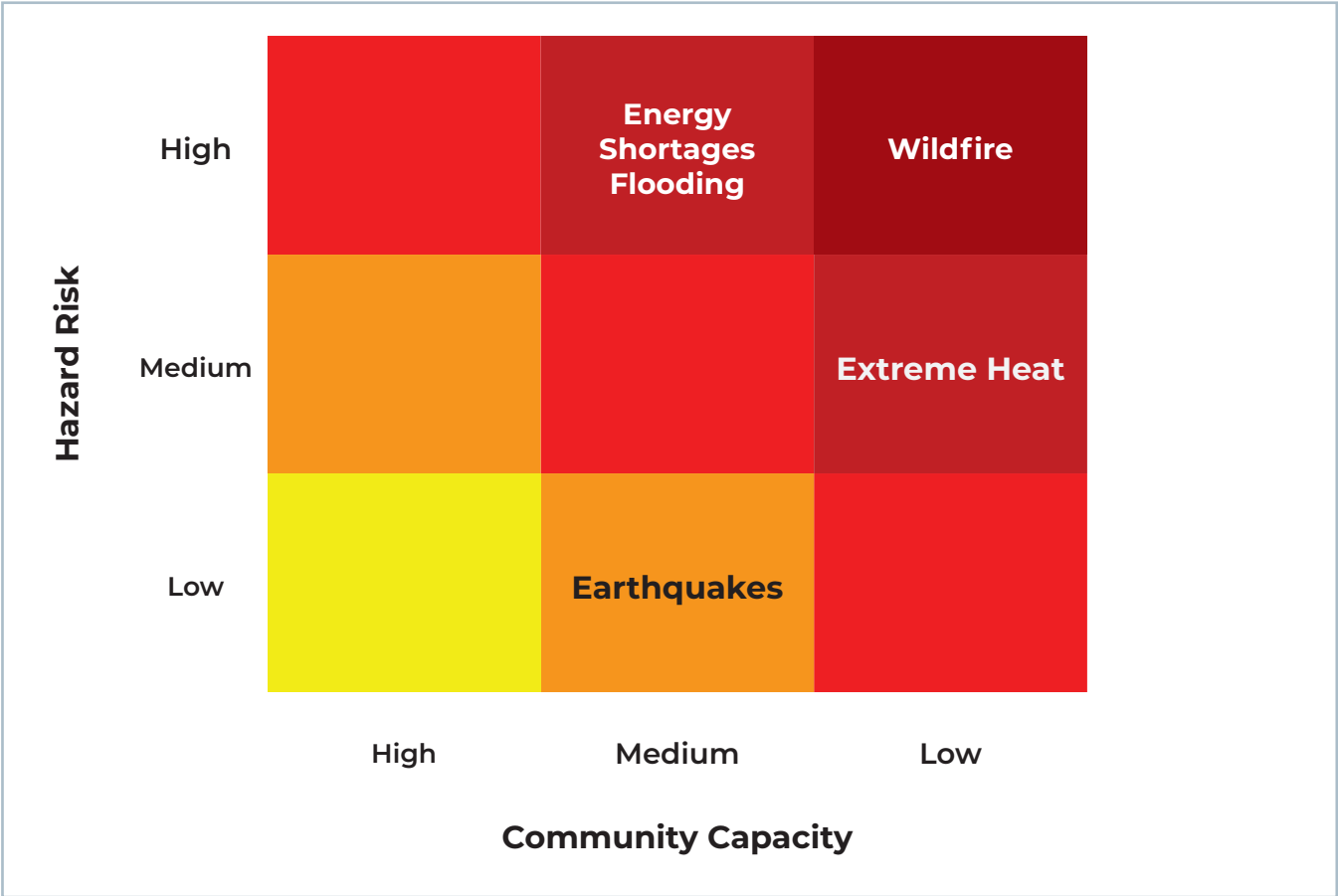
Evacuations from Spalding must evacuate north onto Spalding Road and then to Eagle Lake Road (County Route A1). If either of these roads are closed by fire, evacuation would be severely hindered. Much of Spalding Road is located in a very high fire hazard severity zone, and Eagle Lake Road (County Route A1) has portions within both high and very high fire hazard severity zones.

⁴¹ It is likely that many older adults living alone also have a disability, and there is significant overlap between these groups.

Summary of Findings

Spalding is most at risk from wildfire, flooding, and energy shortages and outages (see **Figure 2-32**). All three are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life, potentially require evacuations, threaten critical facilities, and pose significant risk to older adults and people with disabilities, both of which live in Spalding at much higher rates than the County as a whole.

Figure 2-32– Hazard Risk in Spalding



ENERGY SHORTAGES AND OUTAGES

Hazard events and storms, including hazards far outside of Spalding, could cause power lines to be knocked down and result in power outages in Spalding. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages and outages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impacts to people’s lives.

EXTREME HEAT

Historically, Spalding had 4 extreme heat days a year and is projected to experience 17 extreme heat days a year by 2050.⁴² Historically, heat waves lasted 2.7 days and are projected to increase to 7.5 days between 2020 and 2050. Spalding also has a significant number of older adults living alone, who are more susceptible to extreme heat events. Older adults are more likely to suffer from heat stroke due to their age and physical health, and older adults living alone are less likely to have someone check in on them during a heatwave and help them seek medical attention when they start showing signs of heat-related illness.

FLOODING

The Spalding Airport is within the 100-year flood zone; however, the majority of the developed areas in Spalding are not in an area of flood risk. If severe flooding occurred, evacuation could be difficult because Spalding Road, which is the only access road leaving the community, is also within the 100-year flood zone. Older adults and people with disabilities could have a challenge evacuating in the event of severe flooding.

WILDFIRE

The existing residential areas of Spalding are within a moderate wildfire severity zone, and the undeveloped areas are classified as a high wildfire severity zone. The Spalding Airport is within a high wildfire severity zone and the Spalding Community Facilities District, which houses the Spalding Volunteer Fire Department, is within a moderate wildfire severity zone (see **Figure 2-33**). No developed areas in Spalding are within a very high wildfire severity zone. Historically, there have been repeated wildfires directly west of Spalding in the forested open space; recently, the Whaleback fire in 2018 burned 18,000 acres north and west of Spalding (see **Figure 2-34**).

Additionally, Spalding has a high number of people with disabilities and older adults living alone, who likely will have a more difficult time evacuating. Spalding is also a popular summer vacation location, and often has many non-residents visiting who are not as aware of the area and evacuation protocols. Wildfire is anticipated to become more severe and frequent as a result of climate change.

The Spalding Firewise Board adopted a Wildfire Risk Assessment Report in 2014, which included multiple recommendations for property owners to protect their homes, including defensible space recommendations. Fire protection services are provided to Spalding by the Spalding Community Services District.

42 Cal-Adapt 2020.

Figure 2-33. Wildfire Hazard Severity Zones in Spalding

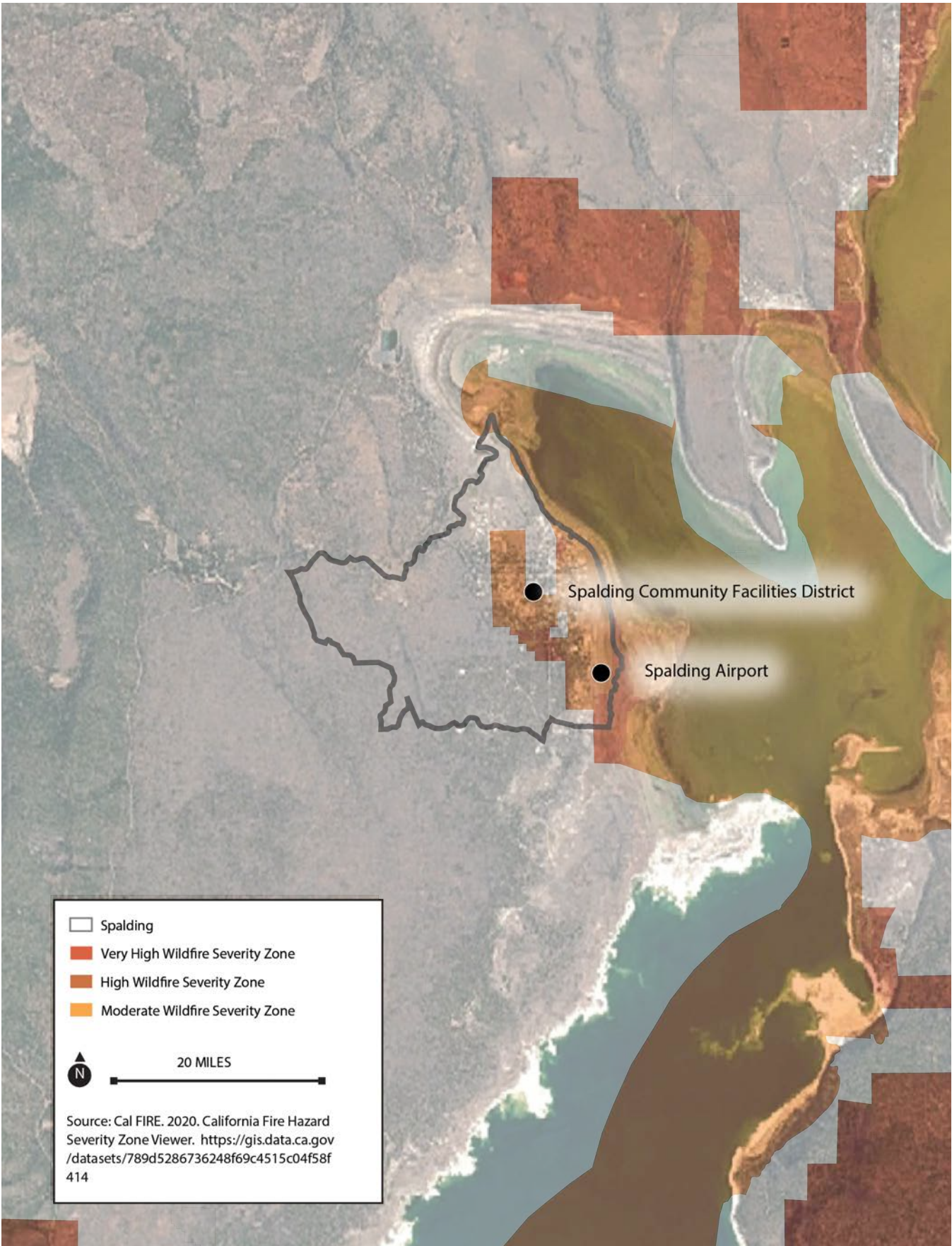
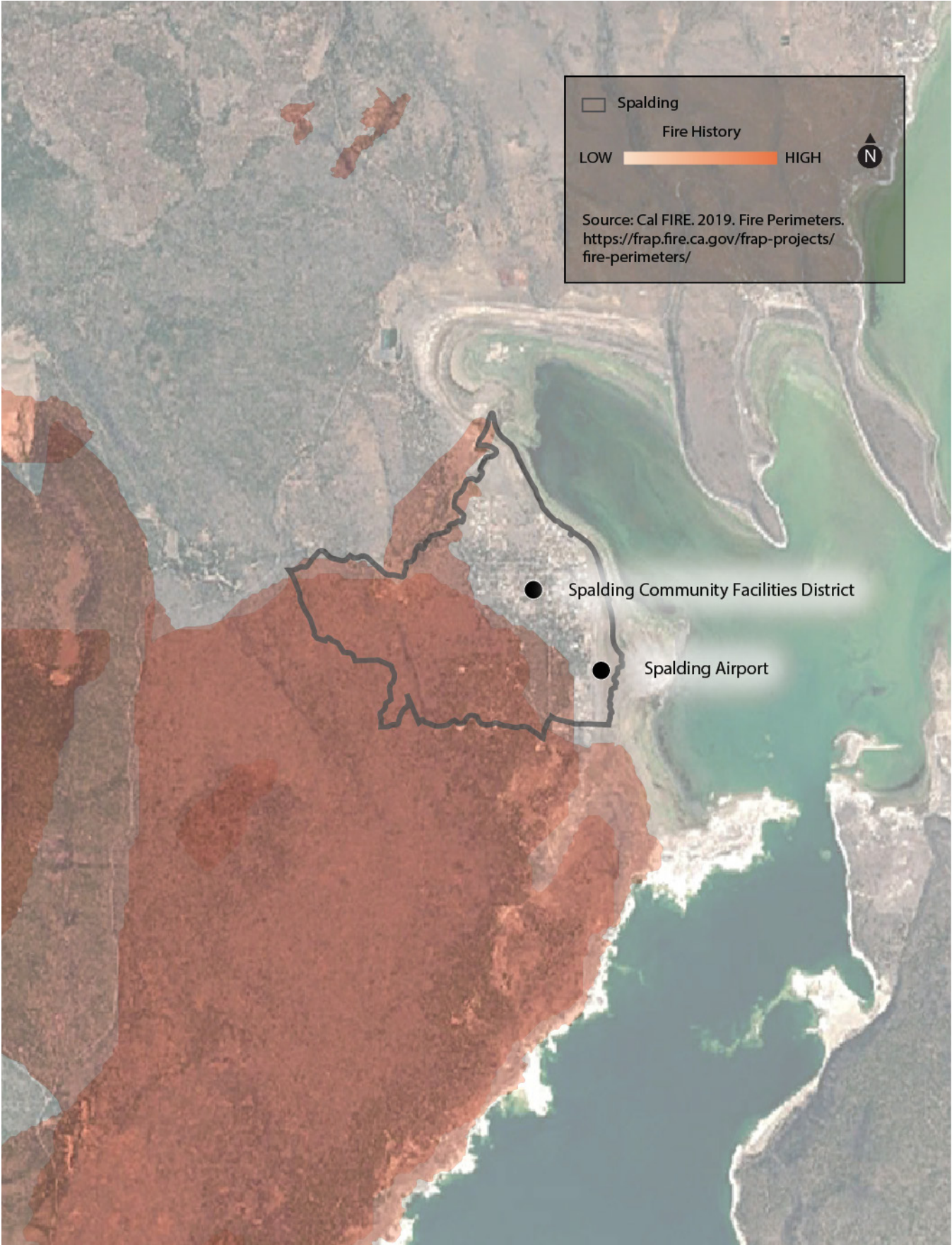


Figure 2-34. Historic Wildfires in Spalding



RAVENDALE

Introduction

Ravendale is a small community in northern Lassen County. Ravendale is not recognized by the U.S. Census Bureau; therefore, specific population data is not available. Ravendale is most at risk from wildfire because the entire community is in a moderate wildfire severity zone. Additionally, small portions of northeastern Ravendale are within a 100-year flood zone. Similar to nearby communities, it can be assumed that Ravendale is also high risk for energy shortages and outages and extreme heat events.

Hazard Assessment

Table 2-33 shows the potential hazards in Ravendale and how likely they are to occur in the next 30 years. Ravendale is most at risk from wildfire, energy shortages and outages, and extreme heat.

Table 2-33 – Hazards in Ravendale

Hazard	Probability
Earthquake	Low
Energy Shortage and Outages	High
Extreme Heat	High
Flooding	Low
Wildfire	High

Community Capacity

CRITICAL ASSETS AND EMERGENCY RESPONSE

Ravendale has one critical asset, a 345 kV transmission line that runs to the west of it (**Table 2-34**). This transmission line is in a moderate fire hazard severity zone, much like the rest of Ravendale.

Table 2-34 – Critical Assets in Ravendale

Asset Type	Asset Name	Relevant Hazards
Local and Regional Infrastructure	345 kV Transmission Line	Wildfire
Major Commercial Hubs	None	N/A
Medical	None	N/A
Schools	None	N/A

VULNERABLE POPULATIONS

As stated above, specific population data is not available for Ravendale.

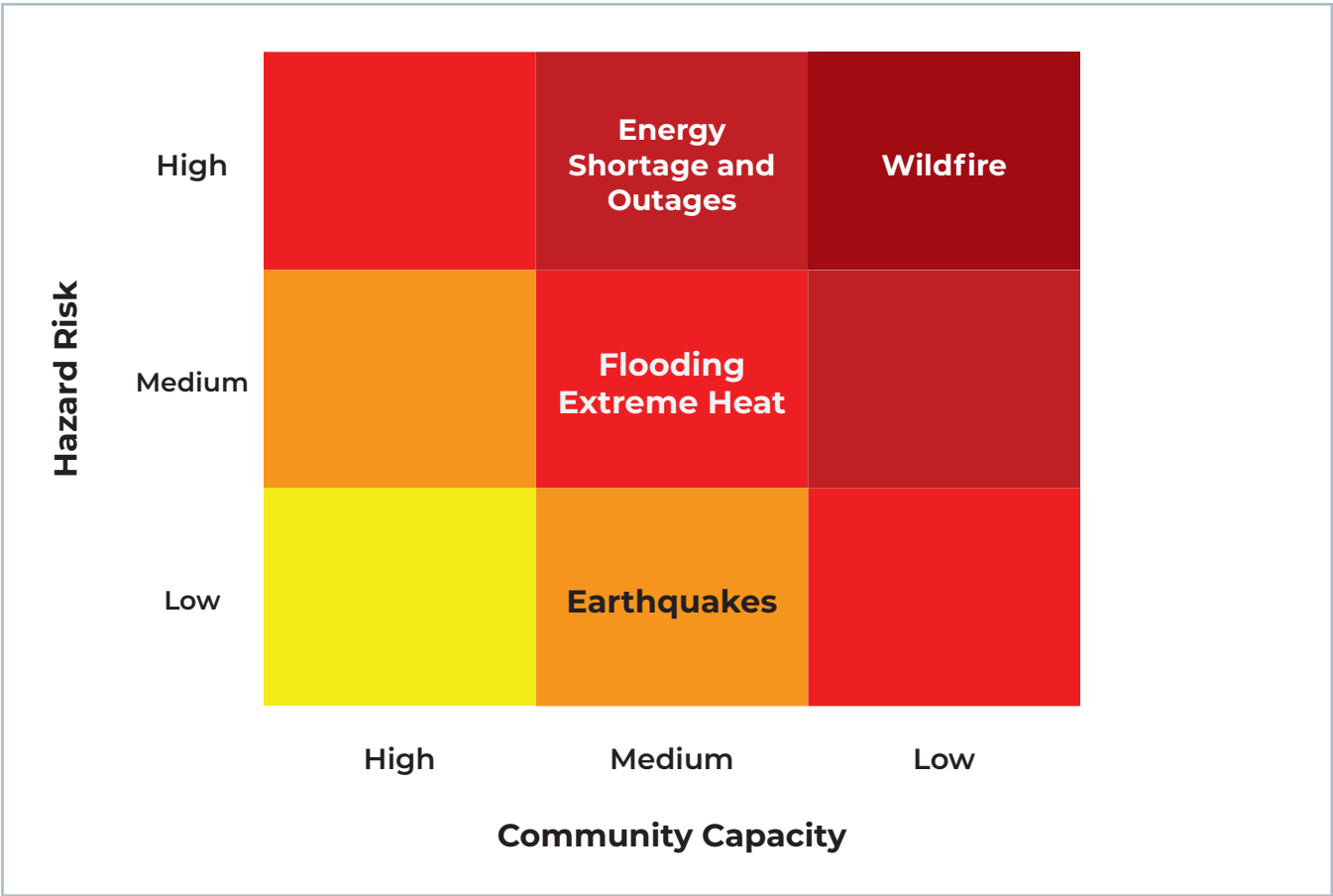
EVACUATION ROUTES

Evacuations could occur on U.S. Highway 395, with School House Road providing an alternate route if U.S. Highway 395 is impacted by a hazard. All roads surrounding Ravendale are located in moderate fire hazard severity zones.

Summary of Findings

Ravendale is most at risk from wildfire, flooding, extreme heat, and energy shortages and outages (see **Figure 2-35**). All three are likely to occur between the years 2020 and 2050 at a scale that would disrupt community life.

Figure 2-35 – Hazard Risk in Ravendale



ENERGY SHORTAGES AND OUTAGES

Hazard events and storms, including hazards far outside of Ravendale, could cause power lines to be knocked down and result in power outages in Ravendale. Additionally, wildfire risk could cause planned power shutoffs more regularly in the future. Energy shortages pose the highest risk to people who are medically dependent, including people whose medication requires refrigeration. Although energy shortages and outages are likely to occur, sufficient planning can mitigate impact to people’s lives.

EXTREME HEAT

Similar to Lassen County as a whole, extreme heat days are anticipated to happen more often, and heat waves are forecasted to last longer.

FLOODING

A small developed portion of northeast Ravendale is within a 100-year flood zone.

WILDFIRE

The entire community of Ravendale is within a moderate wildfire severity zone. All of Ravendale is designated as extensive agriculture in the general plan, and the community contains some sparsely placed single-family homes. Ravendale is not considered a certified Firewise Community, but it is a part of the planning area for the Lassen County CWPP. Regarding fire protection, Ravendale is within the SRA.



Countywide Findings

This section outlines the overall findings of the community profiles, and highlights which communities are considered priorities for each hazard. This, coupled with the findings in the Local Hazard Mitigation Plan, set the groundwork for both Countywide standards and local implementation priorities as presented in the goals, policies, and actions.

Drought and Water Supply

The Lassen County Water Quality Program is responsible for the enforcement of standards and codes related to water wells.⁴³ These wells must have an approved permit from the Environmental Health Department prior to the start of any construction. The purpose of the program is to protect groundwater quality and ensure adequate and safe drinking water supply for Lassen County. The Lassen County groundwater basin is managed under the context of the Groundwater Management Plan, which overlays local agencies, including the City of Susanville, Clear Creek Community Services District, Johnstonville Water System, Herlong Utilities Inc., Lake Forest Mutual Water Company, Lassen County Waterworks District Number 1, Leavitt Lake Community Services District, Little Valley Community Services District, Sierra Army Depot, Susan Hill Mutual Water Company, West Patton Village Community Service District, and Westwood Community Services District.

Groundwater levels in Lassen County are considered adequate for current uses.⁴⁴ In 2000, surface water made up 61% of water supplies and groundwater supplies made up 35% of water supplies.⁴⁵ It is also important to mention trends surrounding water supply. With climate change projected to increase the frequency and severity of droughts, it is likely that this water supply will be reduced over time without additional efforts to build resilience. Efforts to reduce the impacts of drought on water supply and quality are expanded upon within the goals, policies, and actions of this Safety Element.

It is important to identify peak load water supply when discussing seismic risks, because large seismic events have the potential to destroy or incapacitate the normal water supply. If a local earthquake occurs, local water piping would be at risk, and water could become temporarily out of service, which has also been addressed within the goals, policies, and actions of this Safety Element.

The County's efforts toward a continued resilient water source are outlined in the Local Hazard Mitigation Plan, and goals, policies, and actions of the Safety Element. Additionally, the County is working to continue groundwater sustainability through representing County interests in Nevada groundwater exportation projects that include interstate groundwater basins and collaborating with state and federal agencies on groundwater studies.⁴⁶

43 County of Lassen. 2021. Water Quality Program. <http://www.lassencounty.org/dept/environmental-health/water-quality-program>.

44 Lassen County Environmental Health Department. 2016. *Local Area Management Plan*. December 8, 2016. https://www.waterboards.ca.gov/lahontan/water_issues/programs/owts/docs/lamp_tracking/lassen_lamp_12_16.pdf.

45 Brown and Caldwell. 2007. *Lassen County Groundwater Management Plan*. June 2007. <https://www.waterbucket.ca/okw/sites/wbcokw/documents/media/183.pdf>.

46 Brown and Caldwell. 2007. *Lassen County Groundwater Management Plan*. June 2007. <https://www.waterbucket.ca/okw/sites/wbcokw/documents/media/183.pdf>.

Earthquakes

All of Lassen County is at risk for an earthquake; however, communities in southeastern Lassen County are at greater risk due to their proximity to fault zones. Areas within an Alquist-Priolo zone are considered on a fault line and subject to additional building regulations; nearby buildings, especially older structures, are also at risk. Due to the irregularity of earthquakes, this is not considered high risk for any community. The communities that are considered priorities for earthquake policy implementation are Doyle, Herlong, Janesville, and Milford.

Energy Shortages and Outages

Due to the rural nature of Lassen County, storms or planned maintenance regularly threaten the power supply in Lassen County. This is of special concern for people with disabilities and others who may be medically dependent on energy, including refrigeration to keep medicine cool. Many communities in the unincorporated area include large proportions of people with disabilities. Specifically the communities of Clear Creek, Herlong, Little Valley, Milford, and Nubieber are considered priorities for energy shortage and outage policy implementation.

Extreme Heat

Extreme heat is potentially the deadliest hazard in Lassen County. In the past, Lassen County's forested landscape has mitigated extreme heat; however, both the number of extreme heat days and duration of heat waves are forecasted to increase Countywide. Older adults are most at risk from extreme heat. Most communities in Lassen County have a high proportion of older adults living alone, and extreme heat should be considered a priority hazard throughout Lassen County.

Wildfire

Wildfire is the most profound risk to Lassen County due to the heavily forested landscape. CAL FIRE's Lassen-Modoc Unit serves as the County's fire response provider, and their efforts are expanded upon within the Lassen-Modoc Unit Strategic Fire Plan.⁴⁷ Further Mutual Aid and Automatic Aid Agreements are in place through CAL FIRE, and are coordinated through the Susanville Interagency Fire Center. Lassen Fire Safe Council, Inc. develops the Lassen County Community Wildfire Protection Plan. The Community Wildfire Protection Plan outlines mitigation efforts and continued maintenance of these efforts. In addition to these efforts, many communities have local Firewise Boards, fire safe plans, fuel reduction projects, and other risk mitigation programs underway. These local efforts can help prepare and protect residents before a wildfire and reduce the risk that a wildfire can spread into the community or along evacuation routes. Wildfire is considered a priority in the following communities: Bieber, Doyle, Herlong, Janesville, Litchfield, Little Valley, Milford, Spalding, Lake Forest, Merrillville Road, and Ravendale. Standards consistent with CAL FIRE's best practices will be implemented Countywide.

47 CAL FIRE. 2020. Unit Strategic Fire Plan, Lassen-Modoc Unit. March 1, 2020. <https://osfm.fire.ca.gov/media/4kqbid5a/2020-lmu-fire-plan.pdf>.



3. Goals, Policies, and Actions

GOAL 1: Minimize risks, such as loss of life, injury, property damage, and natural resource destruction, from natural hazards.

POLICY 1.1: Protect Lives. Implement applicable federal and State regulations and local ordinances designed to protect life safety.

ACTION 1.1A: Defensible Development. The most recently adopted California Fire Code, Fire Hazard Severity Zone Maps, California Building Codes, SRA Fire Safe Regulations, and Fire Hazard Reduction Around Buildings and Structures Regulations shall be applied to all applicable additions, remodels, reconstruction, and **new development** in very high fire hazard severity zones and State Responsibility Areas (SRAs). Fire protection plans that include risk analysis, fire response capabilities, fire safety requirements, mitigation measures and design considerations for non-conforming fuel modification, and wildfire education and maintenance shall be required for new development and subdivisions in very high fire hazard severity zones and SRAs, as determined by the County Fire Warden.

NEW DEVELOPMENT

For the purposes of this Safety Element, new development includes any projects that require applications for building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or development.

ACTION 1.1B: Water Supply. The County will work with CAL FIRE, and water providers during the review of new development to identify areas vulnerable to wildfire due to inadequate water supply for firefighting and require improvements of the applicant when deemed necessary by the County Fire Warden (e.g., expansion of water supply, storage hydrants). Ensure that water supply infrastructure adequately supports future development and provides adequate water flow to combat structural and wildland fires during peakload water use. New water systems shall equal or exceed the California Fire Code or California Code of Regulations, while aligning with the efforts of the Lassen County Groundwater Management Plan.

ACTION 1.1C: Evacuation and Access. In Chapter 9.16 of the County Code, continue to require new development in Very High Fire Hazard Severity Zones to provide a second access road or improvements to evacuation routes if necessary, to provide for safe access of emergency equipment and civilian evacuation concurrently. The width, surface, grade, radius, turnarounds, turnouts, bridge construction, and lengths of fire apparatus access roads shall meet the requirements of the State Fire Codes. All requirements and any deviations will be at the discretion of the County Fire Warden. Evacuation routes should be incorporated into existing Community Wildfire Protection Plans where available.

ACTION 1.1D: Flood Regulations. Regulatory standards for flood mitigation, located in Chapter 12.26 of the County Code, shall be updated as necessary to remain up to date with Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, regulations, and local ordinances.

ACTION 1.1E: Structural Hazards. The County shall continue to protect life and property by applying and enforcing State-adopted building codes to new construction and Alquist-Priolo requirements to new construction within Alquist-Priolo fault zones. In accordance with the California Department of Conservation Special Publication 42, require development to be located a minimum of 50 feet from active or potentially active faults, unless an alternative setback distance is approved based on geologic analysis and feasible engineering design measures adequate to demonstrate that the fault rupture hazard would be avoided.

ACTION 1.1F: Hazards-Sensitive Uses. When updating land uses and/or zoning code, consider that land uses using hazardous materials be sufficiently buffered to ensure sensitive uses, such as schools, hospitals, daycare centers, and residential neighborhoods, are protected. Similarly, avoid locating sensitive uses near established hazardous materials users or high-impact industrial areas where incompatibilities would result.

ACTION 1.1G: Airport Compatibility. Encourage the Airport Land Use Commission to review the Airport Land Use Compatibility Plan (ALUCP) when feasible and if land use changes around airports occur to ensure that the ALUCP accurately defines planning areas around airports. During updates, establish land use policies and standards appropriate for the public safety and protection of airport operations and in line with CalTrans Aeronautics handbook. As necessary, amend the General Plan Safety Element to be consistent with changes to the ALUCP.

POLICY 1.2: Protect Properties. Encourage property protection measures for all communities and structures located in hazard areas.

ACTION 1.2A: Dangerous Buildings. Continue to implement, and update as necessary, Chapter 12.23 and 1.18 of the County Code, to abate **dangerous buildings**.

DANGEROUS BUILDINGS

Any condition declared by Section 17920.3 of the California Health and Safety Code to be a "substandard building."

ACTION 1.2B: Flooding Areas. Evaluate flooding areas and implement drainage improvements as possible on public assets or rights-of-way to reduce the potential for commercial and residential flooding. Require new discretionary development to provide necessary and feasible on- and off-site improvements to stormwater runoff and drainage facilities.

ACTION 1.2C: Land Uses in Fault Zones. Prohibit allowing new development of high-occupancy uses, essential public facilities, and uses that permit significant amounts of hazardous materials currently not allowed by right within Alquist-Priolo fault zones. During the next update of the land use element, do not permit the above uses by right in Alquist-Priolo fault zones.

ACTION 1.2D: Permit Engagement. To avoid or minimize new residential development in Very High Fire Hazard Severity Zones, engage property owners during the permit process about the fire risks

associated with building in these at-risk areas and the responsibilities laid out in Chapter 9.16 of the County Code. Provide resources to ensure that insurance risks are explained.

POLICY 1.3: Critical Infrastructure. Protect critical infrastructure.

ACTION 1.3A: Update Transportation Designs. Consider updating standard design features in transportation infrastructure to improve resilience to extreme climate events. Tools may include special roadway sealants that prevent roadways from softening during extreme heat, appropriate roadway materials for wildfire prone areas, treating of rail lines to be heat-resistant, and incorporating expansion joints into rails that reduce the risk of damage during high temperatures.

ACTION 1.3B: New Critical Facilities. Ensure that new critical facilities are located to best serve existing and planned development and the corresponding demand for services. These facilities should be sited outside of areas designated as very high fire hazard severity zones, high fire hazard severity zones, moderate fire hazard severity zones, Alquist-Priolo fault zones, and 100-year flood zones when feasible. Such facilities include those that provide emergency response and those that attract over 100 people at a time, such as schools.

ACTION 1.3C: Upgrade Levees. To mitigate the impacts of severe storms and subsequent flooding, encourage and support agency efforts to implement levee upgrades for waterways throughout the County, including irrigation canals.

POLICY 1.4: Economic and Recreational Resource Protection. Minimize economic loss and disruption to agriculture (crops/animals/timber) and recreation resources from natural and human-caused hazards.

ACTION 1.4A: Fuel Management. Continue to support fuels/vegetation management programs across the County to reduce the wildfire hazard throughout County and promote forest health, timber management, livestock production and wildlife habitats. For community fuel breaks or other management programs run by local Fire Districts or State or Federal Agencies, maintain regular lines or communication and offer technical assistance as needed and possible. For County roadway vegetation management, prioritize management of roadside vegetation currently not in conformance with regulations.

ACTION 1.4B: Weed Abatement. Continue to enforce the weed abatement requirements to mitigate the risk of wildfires in the County.

POLICY 1.5: Resource Protection. Protect and preserve natural, cultural, economic, and agricultural resources in hazard mitigation and recovery planning.

ACTION 1.5A: Firewise Plants. The County should work with fire authorities and botanical experts to develop a list of recommended “Firewise” plants suited to, and/or native to, the local area. This list should be made available on the County website and include information about how to establish and maintain plants to maximize fire resistance.

POLICY 1.6: Traditional Mitigation. Promote nature based and traditional ecological knowledge mitigation techniques when feasible

ACTION 1.6A: Prescribed Burning. Support Fire Districts and prescribed burning with open lines of communication, regular meetings with Fire Districts, and discussions of the technical assistance available from the County.

GOAL 2: Coordinate preparedness across government agencies, the private sector, and the general public.

POLICY 2.1: Community Resilience Centers. Create community spaces for emergency preparation, evacuation, and recovery.

ACTION 2.1A: School Shelters. Coordinate with school districts to assess, retrofit, and maintain adequate level of emergency inventory materials (e.g., food, blankets) at schools throughout the county to accommodate emergency shelter.

ACTION 2.1B: Upgrade Resilience Centers. Assess, retrofit, and possibly purchase necessary equipment at critical facilities and resilience centers to ensure a continual power supply during events that can potentially disrupt energy. Consider installation of refrigerators at resilience centers to provide storage for medication in black out or other hazard events.

POLICY 2.2: Offer Available Information. Provide updated information about hazards, vulnerabilities, and mitigation processes to all levels of governmental jurisdictions, the private sector, and the public, including residents, community groups, schools, and religious institutions.

ACTION 2.2A: Hazard and Evacuation Education. Promote educational resources to make residents, businesses, community groups, schools, and religious institutions aware of evacuation planning and hazards. Emphasize engagement efforts for high priority hazards and at-risk groups or vulnerable populations, as identified in the Community Profiles portion of this Element.

ACTION 2.2B: Fire Outreach. Work with CAL FIRE and Fire Districts prior to fire season to utilize partnerships, coordinate outreach events, and leverage County communication resources to educate the public on wildfire preparation and response. Topics should include but are not limited to creating a defensible space around their place of residence, fire landscaping, reducing the potential for the expansion of invasive species that can occur from defensible space projects, Ready! Set! Go!, Red Flag Warning, wildfire ignition risks, resource concerns, and evacuation. Emphasize engagement efforts for fire-hazard priority communities and populations vulnerable to fire.

ACTION 2.2C: Hazard Database. Coordinate, develop, and maintain a digital inventory of areas and critical assets exposed to identified hazards.

ACTION 2.2D: Emergency Response Service. Coordinate with CAL FIRE to develop a level of service standard for all emergency response services (fire, EMS, HazMat, and rescue) and make such information public so that landowners and residents understand the distribution and quality of service. Incorporate these service standards into development review.

ACTION 2.2E: Household Hazardous Waste Disposal. Educate the public on household hazardous wastes and the proper methods of disposal.

ACTION 2.2F: Hazardous Materials Flow. Develop a commodity flow study to determine flow of hazardous materials through the county.

POLICY 2.3: Emergency Response Preparation. Further develop and improve emergency response communications, public warning systems, and evacuation routes.

ACTION 2.3A: Dry Storage. To facilitate storage for emergency response equipment and resource materials (e.g., salt, sand, heavy equipment) construct or purchase dry storage facilities in strategic locations within the County.

ACTION 2.3B: GIS Efforts. When possible, such as during Safety Element and LHMP updates, develop and maintain key data sets for the purposes of hazard resilience and safety (i.e., critical assets, backup generators, evacuation routes).

ACTION 2.3C: Standard Evacuation Plan. Develop a standardized operational area evacuation plan to streamline emergency response efforts. Publicize routes as possible.

ACTION 2.3D: Evacuation Route Improvements. Prioritize Capital Improvement Program road improvements for evacuation routes. Further prioritize improvements to evacuation routes that are within Alquist-Priolo fault zones and 100-year flood zones. When any new parcel maps or subdivision requests are submitted for approval, these areas are to be evaluated at that time to document if they have at least two emergency evacuation routes. Over time, work to map any residential areas that do not have at least two emergency evacuation routes.

ACTION 2.3E: Harden Critical Facilities. Assess and where necessary retrofit/harden facilities essential to response and recovery operations within the County.

ACTION 2.3F: HazMat Trainings. Coordinate across agencies to train and conduct mock exercises with first responders in hazardous materials (HazMat) response field operations and decontamination.

ACTION 2.3G: Radio System Coverage. Pursue projects to increase emergency radio system coverage across the County.

HARDEN

To perform building material retrofits which replace materials susceptible to hazards with ones which are more resilient.

ACTION 2.3H: Communications Equipment Purchasing. When purchasing emergency communications equipment, consider the redundancies and fail safes that are needed to accommodate unexpected power outages and Public Safety Power Shut offs (PSPS).

ACTION 2.3I: Radio Redundancies. Build redundancies at radio base stations and repeater sites. This can include improving battery backups, replacing generators and batteries where needed, and considering the addition of a solar array.

ACTION 2.3J: CJIS Compliance. Pursue **CJIS compliance** related to encrypted law enforcement communications.

CJIS COMPLIANCE

CJIS is a federal compliance standard and is designed to ensure data security in law enforcement.

POLICY 2.4: Foster Partnerships. Establish and maintain partnerships between all levels of local government, the private sector, the business community, community groups, and institutions of higher learning that improve and implement methods to protect life and property.

ACTION 2.4A: Partnerships. Continue to maintain working relationships with agencies to share resources and expertise; coordinate land management, hazard prevention, and response activities; facilitate property access; access grant funding; and use cost-sharing opportunities that further hazard mitigation efforts.

ACTION 2.4B: Local Hazard Mitigation Plan. Continue to participate in FEMA's pre-disaster mitigation program by developing, maintaining, and implementing a Local Hazard Mitigation Plan. Incorporate applicable updates to the Local Hazard Mitigation Plan into the Safety Element and vice versa.

ACTION 2.4C: Coordinate with Hospitals. Work with local medical providers and hospitals to ensure that medical facilities are prepared to meet increased demand because of hazard events.

ACTION 2.4D: CAL FIRE Coordination. Continue to coordinate with CAL FIRE on Exception Requests for all SRA fire hazard severity zones and LRA very high fire hazard severity zones. The County shall maintain efficient and timely procedures for processing SRA Exception Requests to CAL FIRE.

ACTION 2.4E: Power Shutoff Coordination. Public Safety Power Shutoff (PSPS) coordination between the County, LMUD, Plumas Sierra Rural Electric Cooperative, and PG&E should occur to limit the impacts on residents and businesses. PG&E, LMUD, and the County should collaborate while monitoring weather conditions to ensure pertinent information is shared.

ACTION 2.4F: Animal Evacuation Centers. Identify and designate domestic animal evacuation centers. Where possible link to emergency shelters as not to separate owners from their pets.

ACTION 2.4G: Regional Communication Links. Coordinate with regional partners to pursue emergency communications links that allow backup phone and radio services for County Emergency Responders.

ACTION 2.4H: Telecommunications Redundancy. Coordinate with commercial telecommunications providers to create telecommunication infrastructure redundancies and prevent **community islanding**.

COMMUNITY ISLANDING

Community islanding occurs when a telecommunications system is cut off from outside communications.

POLICY 2.5: Serve Vulnerable Populations. Develop policies and procedures to better serve disadvantaged and vulnerable populations.

ACTION 2.5A: Harden Homes. Promote structural hardening retrofits and creation of defensible space for existing structures in all SRA fire hazard severity zones and very high fire hazard severity zones in LRA's, consistent with the building standards and materials in the most current version of Chapter 7A of the California Building Code and California Fire Code. Prioritize incentives for vulnerable populations.

ACTION 2.5B: Warnings for All. Improve fire and flood warning and information dissemination, with a focus on ensuring those who lack internet access and cell phones, and for whom English is a second language can receive and understand emergency warnings.

ACTION 2.5C: Hazard Response Trainings. Coordinate with fire protection agencies operating in Lassen County to regularly train community-based emergency response teams, incorporating climate change response and recovery. Encourage recruiting includes a diverse set of community members and leaders.

ACTION 2.5D: Vulnerable Population Registry. Continue to develop a voluntary vulnerable population registry and subsequent priority list to help first responders better provide services to at-risk community members. To understand the vulnerable populations present in communities and inform outreach related to this registry, utilize the Community Profiles portion of this element.

GOAL 3: Maintain adequate emergency preparedness and response capabilities.

POLICY 3.1: Improve EOC. Ensure the Emergency Operations Center (EOC) has adequate capacity to respond to hazard events.

ACTION 3.1A: EOC Updates. Work regionally to assess and update EOC equipment and supplies as necessary to ensure effectiveness. Identify needs regularly and after major hazard responses.

ACTION 3.1B: Communication Upgrades. To improve the consistency of emergency communications and facilitate timely response, implement Firenet/Lawnet Lassen Emergency communication equipment upgrades (e.g., backup power, additional repeaters, radios).

ACTION 3.1C: EOC Trainings. Conduct EOC mock exercises and incident management position training to prepare for emergency response.

ACTION 3.1D: EOC Back Up. Assess, identify, and possibly retrofit/harden a building and/or office space to serve as the joint back up EOC.

ACTION 3.1E: House Numbering. Continue to enforce display of house numbering, as laid out in County Code Chapters 12.36 and 9.16, for the purposes of efficient and accurate emergency response. Update County Code to meet State Fire Code as necessary.

POLICY 3.2: Respond Cooperatively. Continue to coordinate jurisdictional responsibilities to various hazards through County and community disaster/emergency response plans and exercises.

ACTION 3.2A: Consistency with State and Federal Framework. County emergency response efforts shall be consistent with the California Emergency Services Act (California Government Code, Section 8550 et seq.) and the federal National Response Framework (effective March 2008, as amended) and the National Incident Management System (NIMS).

ACTION 3.2B: Participation in Mutual Aid Systems. Maintain participation in local, regional, State, and national mutual aid systems to ensure that appropriate resources are available for response and recovery during and following a disaster.

ACTION 3.2C: Operational Contingency Plans. Work on a department-by-department level to develop operational contingency plans that allow for necessary work to be performed during times of hazard events and unplanned power or communication outages. Develop operational procedures in case County offices, the County Adult Detention Facility, and other locations are required to evacuate. Consider working with surrounding jurisdictions to provide mutual aid in the form of facility-sharing during times of need.

GOAL 4: Build Back Stronger

POLICY 4.1: Protect Records. Protect vital records to minimize post-disaster disruption and facilitate short-term and long-term recovery.

ACTION 4.1A: Backup Vital Records. Identify and digitize records vital to effective county operations. Ensure that vital records are regularly backed up on a cloud-based system to retain necessary information and expedite the recovery process in the event of a hazard destructive of County property.

POLICY 4.2: Recover with Partners. Coordinate with federal, State, and local agencies to establish ecological and built environment recovery programs.

ACTION 4.2A: Reassessment of Fire Hazards. Coordinate with fire protection and emergency service providers to reassess fire hazards after major wildfire events to adjust fire prevention and suppression needs, as necessary, commensurate for both short- and long-term fire prevention needs.

ACTION 4.2B: Post-Disaster Reconstruction. Participate in the development of programs and procedures that emphasize coordination between appropriate public agencies and private entities to remove debris and promote the safe and rapid reconstruction of the County following a disaster event. Evaluate redevelopment after hazard events to facilitate the necessary upgrading of the built environment as expeditiously as possible.

Implementation

This section outlines how the above actions will be implemented, including an overview of who will be responsible for implementation, when it will be implemented, applicable partner agencies, and if it is required by State or Federal law. This section is organized by implementation categories. These categories represent the role of the County and the necessary actions and typical funding required for successful implementation. These categories include municipal operations, ordinances and codes, planning, partnerships, education and outreach, and grants. In the tables below, the following items are included for each action:

- **Action Number and Title:** These identify the actions as they are outlined in the Goals, Policies, and Action section.
- **Responsible Department:** This outlines the primary County department or partner who will lead implementation.
- **Timeframe:** This outlines when this action will be implemented. “Ongoing” actions will be implemented in the next two years and continue through the life of the element. “Short” includes actions that will be achieved in the next two years. “Medium” includes actions that will be achieved between 2-10 years. “Long” includes actions that will be achieved in more than 10 years.
- **MHMP:** These actions are included in the County Multi-Jurisdictional Hazard Mitigation Plan Update adopted in 2020.
- **Partners:** This lists potential agencies, special districts, and other County departments that should be included in implementation and may potentially fund action items.
- **Requirements and Recommendations:** This lists any relevant State requirements and recommendations that inform an action. These actions should be considered priorities as they may be required to be eligible for recovery funds in the event of a disaster.

MUNICIPAL OPERATIONS

Municipal operations are programs the County conducts or projects the County builds. These are often the most resource intensive actions and require extensive staff time and discretionary funding.

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.1b	WATER SUPPLY. The County will work with CAL FIRE, and water providers during the review of new development to identify areas vulnerable to wildfire due to inadequate water supply for firefighting and require improvements of the applicant when deemed necessary by the County Fire Warden (e.g., expansion of water supply, storage hydrants, etc.). Ensure that water supply infrastructure adequately supports future development and provides adequate water flow to combat structural and wildland fires during peakload water use. New water systems shall equal or exceed the California Fire Code, or California Code of Regulations, while aligning with the efforts of the Lassen County Groundwater Management Plan.	Planning and Building Services	Medium	X	CAL FIRE, Water Providers, Fire Districts	Recommended by CAL FIRE
1.3c	UPGRADE LEVEES. To mitigate the impacts of severe storms and subsequent flooding, encourage and support agency efforts to implement levee upgrades for waterways throughout the County, including Irrigation Canals.	Planning and Building Services	Medium	X	Water Districts, Community Services Districts, ACE	
1.4a	FUEL MANAGEMENT. Continue to support fuels/vegetation management programs across the County to reduce the wildfire hazard throughout County and promote forest health, timber management, livestock production and wildlife habitats. For community fuel breaks or other management programs run by local Fire Districts or State or Federal Agencies, maintain regular lines or communication and offer technical assistance as needed and possible. For County roadway vegetation management, prioritize management of roadside vegetation currently not in conformance with regulations.	Planning and Building Services; Public Works / Roads	Ongoing	X	CAL FIRE, Fire Districts, Bureau of Land Management, US Forest Service, National Park Service, Resource Conservation Districts, Eagle Lake Guardians, Lassen Land & Trails Trust	Recommended by CAL FIRE
1.4b	WEED ABATEMENT. Continue to enforce the weed abatement requirements to mitigate the risk of wildfires in the County.	Fire Districts	Ongoing	X	Bureau of Land Management, National Park Service, US Forest Service, CAL FIRE, Resource Conservation Districts	

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
2.1b	UPGRADE RESILIENCE CENTERS. Assess, retrofit, and possibly purchase necessary equipment at critical facilities and resilience centers to ensure a continual power supply during events that can potentially disrupt energy. Consider installation of refrigerators at resilience centers to provide storage for medication in black out or other hazard events.	Office of Emergency Services; Sheriff's Office	Medium	X	Planning and Building Services, CAL FIRE	
2.2c	HAZARD DATABASE. Coordinate, develop and maintain a digital inventory of areas and critical assets exposed to identified hazards.	Planning and Building Services	Medium	X	CAL FIRE, Sheriff's Office, Public Works / Roads, Fire Districts	
2.3a	DRY STORAGE. To facilitate storage for emergency response equipment and resource materials (e.g., salt, sand, heavy equipment) construct or purchase dry storage facilities in strategic locations within the county.	Public Works / Roads	Medium	X	Planning and Building Services, Sheriff's Office, Office of Emergency Services	
2.3b	GIS EFFORTS. When possible, such as during Safety Element and LHMP updates, develop and maintain key data sets for the purposes of hazard resilience and safety (i.e., critical assets, backup generators, evacuation routes).	Planning and Building Services; Sheriff's Office; Office of Emergency Services	Ongoing	X		Required by AB747
2.3d	EVACUATION ROUTE IMPROVEMENTS. Prioritize CIP road improvements for evacuation routes. Further prioritize improvements to evacuation routes that are within Alquist-Priolo fault zones and 100-year flood zones. When any new parcel maps or subdivisions requests are submitted for approval, these areas are to be evaluated at that time to document if they have at least two emergency evacuation routes. Over time, work to map any residential areas that do not have at least two emergency evacuation routes.	Public Works / Roads	Ongoing	X	Planning and Building Services, CAL FIRE, Sheriff's Office, Fire Districts	Required by SB 99, Recommended by CAL FIRE
2.3e	HARDEN CRITICAL FACILITIES. Assess and where necessary retrofit/harden facilities essential to response and recovery operations within the county.	Planning and Building Services	Medium	X	Sheriff's Office, CAL FIRE, Public Works / Roads, Fire Districts, Office of Emergency Services	
2.3f	HAZMAT TRAININGS. Coordinate across agencies to train and conduct mock exercises with first responders in hazardous materials (HazMat) response field operations and decontamination.	Sheriff's Office, Office of Emergency Services	Ongoing	X	CAL FIRE, Fire Districts	
2.3g	RADIO SYSTEM COVERAGE. Pursue projects to increase emergency radio system coverage across the County.	Sheriff's Office, IT Department	Ongoing		Office of Emergency Services, Planning and Building Services	

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
2.3h	COMMUNICATIONS EQUIPMENT PURCHASING. When purchasing emergency communications equipment, consider the redundancies and fail safes that are needed to accommodate unexpected power outages and Public Safety Power Shut offs (PSPS).	IT Department	Ongoing		Sheriff's Office, Office of Emergency Services	
2.3i	RADIO REDUNDANCIES. Build redundancies at radio base stations and repeater sites. This can include improving battery backups, replacing generators and batteries where needed, and considering the addition of a solar array.	IT Department	Ongoing		Sheriff's Office, Office of Emergency Services	
2.3j	CJIS COMPLIANCE. Pursue CJIS compliance related to encrypted law enforcement communications.	Sheriff's Office	Medium			
2.5b	WARNINGS FOR ALL. Improve fire and flood warning and information dissemination, with a focus on ensuring those who lack internet access and cell phones, and for whom English is a second language can receive and understand emergency warnings.	Office of Emergency Services	Medium		Sheriff's Office, CAL FIRE	
2.5d	VULNERABLE POPULATION REGISTRY. Continue to develop a voluntary vulnerable population registry and subsequent priority list to help first responders better provide services to at-risk community members. To understand the vulnerable populations present in communities and inform outreach related to this registry, utilize the Community Profiles portion of this element.	Office of Emergency Services	Long		Sheriff's Office, CAL FIRE, Fire Districts	
3.1a	EOC UPDATES. Work regionally to assess and update EOC equipment and supplies as necessary to ensure effectiveness. Identify needs regularly and after major hazard responses.	Office of Emergency Services	Ongoing	X	CAL FIRE, Sheriff's Office, Fire Districts, Susanville Indian Rancheria, City of Susanville	
3.1b	COMMUNICATION UPGRADES. To improve the consistency of emergency communications and facilitate timely response, implement Firenet/Lawnet Lassen Emergency communication equipment upgrades (backup power, additional repeaters, radios, etc.).	Sheriff's Office	Short	X	CAL FIRE, Office of Emergency Services	
3.1c	EOC TRAININGS. Conduct EOC mock exercises and incident management position training to prepare for emergency response.	Office of Emergency Services	Ongoing	X	CAL FIRE, Sheriff's Office	
3.1d	EOC BACK UP. Assess, identify, and possibly retrofit/harden a building and/or office space to serve as the joint back up EOC.	Office of Emergency Services	Medium	X	CAL FIRE, Sheriff's Office	

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
3.2a	CONSISTENCY WITH STATE AND FEDERAL FRAMEWORK. County emergency response efforts shall be consistent with the California Emergency Services Act (California Government Code, Section 8550 et seq.) and the federal National Response Framework (effective March 2008, as amended) and the National Incident Management System (NIMS).	Office of Emergency Services	Ongoing		CAL FIRE, Sheriff's Office, Fire Districts	
3.2c	OPERATIONAL CONTINGENCY PLANS. Work on a department-by-department level to develop operational contingency plans that allow for necessary work to be performed during times of hazard events and unplanned power or communication outages. Develop operational procedures in case County offices, the County Adult Detention Facility, and other locations are required to evacuate. Consider working with surrounding jurisdictions to provide mutual aid in the form of facility-sharing during times of need.	Administration	Medium		Sheriff's Office, Planning and Building Services, Public Works / Roads, Public Health, Lassen Regional Solid Waste Management Authority, Agricultural Commissioner	
4.1a	BACKUP VITAL RECORDS. Identify and digitize records vital to county operations. Ensure that vital records are regularly backed up on a cloud-based system to retain necessary information and expedite the recovery process in the event of a hazard destructive of County property.	Administration	Medium		Planning and Building Services, Public Works / Roads, Office of Emergency Services, Sheriff's Office, CAL FIRE, Agricultural Commissioner, Public Health	

ORDINANCES AND CODES

Ordinances and codes are changes to County regulations. These changes are generally only applicable to new development which also is responsible for the cost of implementation. These actions will be included in the Safety Ordinance and County staff will implement these standards during discretionary permit review.

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.1a	ACTION 1.1A: DEFENSIBLE DEVELOPMENT. The most recently adopted California Fire Code, Fire Hazard Severity Zone Maps, California Building Codes, SRA Fire Safe Regulations, and Fire Hazard Reduction Around Buildings and Structures Regulations shall be applied to all applicable additions, remodels, reconstruction, and new development in very high fire hazard severity zone and State Responsibility Areas (SRAs). Fire protection plans that include risk analysis, fire response capabilities, fire safety requirements, mitigation measures and design considerations for non-conforming fuel modification, and wildfire education and maintenance shall be required for new development and subdivisions in very high fire hazard severity zones and SRAs, as determined by the County Fire Warden.	Planning and Building Services (in County Code, Article 1 of Title 12)	Ongoing			Required by State Code, Recommended by CAL FIRE
1.1d	FLOOD REGULATIONS. Regulatory standards for flood mitigation, located in Chapter 12.26 of the County Code, shall be updated as necessary to remain up to date with FEMA Flood Insurance Rate Maps, regulations and local ordinances.	Planning and Building Services	Ongoing			Guidance from FEMA
1.1e	STRUCTURAL HAZARDS. The County shall continue to protect life and property by applying and enforcing state adopted building codes to new construction and Alquist-Priolo requirements to new construction within Alquist-Priolo Fault Zones. In accordance with the California Department of Conservation Special Publication 42, require development be located a minimum of 50 feet from active or potentially active faults, unless an alternative setback distance is approved based on geologic analysis and feasible engineering design measures adequate to demonstrate that the fault rupture hazard would be avoided.	Planning and Building Services	Ongoing			Guidance from California Geologic Survey
1.1f	HAZARDS-SENSITIVE USES. When updating land uses and/or zoning code, consider that land uses using hazardous materials be sufficiently buffered to ensure sensitive uses, such as schools, hospitals, daycare centers, and residential neighborhoods, are protected. Similarly, avoid locating sensitive uses near established hazardous materials users or High Impact Industrial areas where incompatibilities would result.	Planning and Building Services	Short			

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.2a	DANGEROUS BUILDINGS. Continue to implement, and update as necessary, Chapter 12.23 and 1.18 of the County Code, to abate dangerous buildings.	Planning and Building Services	Short	X		
1.2c	LAND USES IN FAULT ZONES. Prohibit allowing new development of high-occupancy uses, essential public facilities, and uses that permit significant amounts of hazardous materials currently not allowed by right within Alquist-Priolo Fault Zones. During the next update of the land use element, do not permit the above uses by right in Alquist-Priolo fault zones.	Planning and Building Services	Ongoing			
1.3a	UPDATE TRANSPORTATION DESIGNS. Consider updating standard design features in transportation infrastructure to improve resilience to extreme climate events. Tools may include special roadway sealants that prevent roadways from softening during extreme heat, appropriate roadway materials for wildfire prone areas, treating of rail lines to be heat-resistant, and incorporating expansion joints into rails that reduce the risk of damage during high temperatures.	Public Works / Roads	Long		California Department of Transportation	
2.5a	HARDEN HOMES. Promote structural hardening retrofits and creation of defensible space for existing structures in all SRA fire hazard severity zones and very high fire hazard severity zones in LRA's, consistent with the building standards and materials in the most current version of Chapter 7A of the California Building Code and California Fire Code. Prioritize incentives for vulnerable populations.	Planning and Building Services	Ongoing		Religious Institutions, School Districts, Real Estate Community, Business Community	Recommended by CAL FIRE
3.1e	HOUSE NUMBERING. Continue to enforce display of house numbering, as laid out in County Code Chapter 12.36 and 9.16, for the purposes of efficient and accurate emergency response. Update County Code to meet State Fire Code as necessary.	Planning and Building Services	Ongoing		Sheriff's Office, CAL FIRE, Fire Districts	Required by State Code, Recommended by CAL FIRE

PLANNING

These are programmatic actions that require adoption of a new plan or planning effort. These typically require intensive staff resources and have long implementation timeframes. Grants are often available for planning efforts, however, pursuing grants also requires staff time.

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.1c	EVACUATION AND ACCESS. In Chapter 9.16 of the County Code, continue to require new development in Very High Fire Hazard Severity Zones to provide a second access road or improvements to evacuation routes if necessary to provide for safe access of emergency equipment and civilian evacuation concurrently. The width, surface, grade, radius, turnarounds, turnouts, bridge construction, and lengths of fire apparatus access roads shall meet the requirements of the State Fire Codes. All requirements and any deviations will be at the discretion of the County Fire Warden. Evacuation routes should be incorporated into existing Community Wildfire Protection Plans where available.	Planning and Building Services	Medium			Required by SB 99
1.1g	AIRPORT COMPATIBILITY. Encourage the Airport Land Use Commission to review the Airport Land Use Compatibility Plan (ALUCP) when feasible and if land use changes around airports occur to ensure that the ALUCP accurately defines planning areas around airports. During updates, establish land use policies and standards appropriate for the public safety and protection of airport operations and in line with CalTrans Aeronautics handbook. As necessary, amend the General Plan Safety Element to be consistent with changes to the ALUCP.	Planning and Building Services	Ongoing		Public Works / Roads, City of Susanville (Susanville Municipal Airport), U.S. Army (Amedee Army Airfield)	
1.2b	FLOODING AREAS. Evaluate flooding areas and implement drainage improvements as possible on public assets or rights-of-way to reduce the potential for commercial and residential flooding. Require new discretionary development to provide necessary and feasible on- and off-site improvements to stormwater runoff and drainage facilities.	Public Works / Roads, and Planning and Building Services	Ongoing	X	Public Works / Roads, Planning and Building Services	

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.3b	NEW CRITICAL FACILITIES. Ensure that new critical facilities are located to best serve existing and planned development and the corresponding demand for services. These facilities should be sited outside of hazard areas.	Public Works	Long		Sheriff's Office, School Districts, CAL FIRE, Planning and Building Services	Recommended by CAL FIRE
1.5a	FIREWISE PLANTS. The County should work with fire authorities and botanical experts to develop a list of recommended "Firewise" plants suited to, and/or native to, the local area. This list should be made available on the County website and include information about how to establish and maintain plants to maximize fire resistance.	Planning and Building Services	Medium		CAL FIRE, National Park Service, Bureau of Land Management, US Forest Service, California Department of Fish and Wildlife, Resource Conservation Districts	
2.2d	EMERGENCY RESPONSE SERVICE. Coordinate with CAL FIRE to develop a level of service standard for all emergency response services (fire, EMS, HazMat, and rescue) and make such information public so that landowners and residents understand the distribution and quality of service. Incorporate these service standards into development review.	Sheriff's Office, and Planning and Building Services	Medium		Sheriff's Office, Office of Emergency Services, CAL FIRE	
2.2f	HAZARDOUS MATERIALS FLOW. Develop a commodity flow study to determine flow of hazardous materials through the county.	Planning and Building Services	Long	X	Lassen Regional Solid Waste Management Authority	
2.3c	STANDARD EVACUATION PLAN. Develop a standardized operational area evacuation plan to streamline emergency response efforts. Publicize routes as possible.	Sheriff's Office	Medium	X	Sheriff's Office, Public Works / Roads, Office of Emergency Services, Planning and Building Services, Fire Districts, CAL FIRE	
2.4b	LASSEN HAZARD MITIGATION Plan. Continue to participate in FEMA's pre-disaster mitigation program by developing, maintaining, and implementing a Hazard Mitigation Plan. Incorporate updates to the Hazard Mitigation Plan into the Safety Element and vice versa.	Office of Emergency Services; Planning and Building Services	Ongoing		Sheriff's Office, CAL FIRE, Fire Districts	Recommended by CAL FIRE
2.4d	CAL FIRE COORDINATION. Continue to coordinate with CAL FIRE on Exception Requests for all SRA fire hazard severity zones and LRA very high fire hazard severity zones. The County shall maintain efficient and timely procedures for processing SRA Exception Requests to CAL FIRE.	Planning and Building Services	Ongoing		CAL FIRE	
4.2a	REASSESSMENT OF FIRE HAZARDS. Coordinate with fire protection and emergency service providers to reassess fire hazards after major wildfire events to adjust fire prevention and suppression needs, as necessary, commensurate for both short- and long-term fire prevention needs.	Office of Emergency Services	Medium		Fire Districts, Planning and Building Services, CAL FIRE, Sheriff's Office	Recommended by CAL FIRE

PARTNERSHIPS

These are actions primarily lead by outside partners, including the State and non-profit but supported by county resources, staff, and/or facilities. These should require limited.

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
2.1a	SCHOOL SHELTERS. Coordinate with school districts to assess, retrofit, and maintain adequate level of emergency inventory materials (food, blankets, etc.) at schools throughout the county to accommodate emergency shelter.	Social Services	Medium	x	School Districts, CAL FIRE, Sheriff's Office	
2.4a	PARTNERSHIPS. Continue to maintain working relationships with agencies to share resources and expertise, coordinate land management, hazard prevention, and response activities, facilitate property access, access grant funding, and utilize cost-sharing opportunities that further hazard mitigation efforts.	Multiple County Departments	Ongoing	x	CAL FIRE, Susanville Indian Rancheria, City of Susanville, Bureau of Land Management, US Forest Service, National Park Service, California Department of Fish and Wildlife, Development Community, Business Community, Real Estate Community, Religious Institutions, School Districts, Insurance Companies, FEMA, Lassen Land & Trails Trust	Recommended by CAL FIRE
2.4c	COORDINATE WITH HOSPITALS. Work with local medical providers and hospitals to ensure that medical facilities are prepared to meet increased demand because of hazard events.	Public Health	Ongoing		Medical Providers	
2.4f	ANIMAL EVACUATION CENTERS. Identify and designate Domestic Animal evacuation centers. Where possible, link to emergency shelters, to avoid separating owners from their pets.	Sheriff's Office	Medium	x	Planning and Building Services, CAL FIRE, Office of Emergency Services	
2.4g	REGIONAL COMMUNICATION LINKS. Coordinate with regional partners to pursue emergency communications links that allow backup phone and radio services for County Emergency Responders.	IT Department; Office of Emergency Services	Medium		Sheriff's Office, Plumas County, Shasta County, Modoc County	

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
2.4h	TELECOMMUNICATIONS REDUNDANCY. Coordinate with commercial telecommunications providers to create telecommunication infrastructure redundancies and prevent community islanding.	IT Department	Medium		Commercial telecommunications providers	
3.2b	PARTICIPATION IN MUTUAL AID SYSTEMS. Maintain participation in local, regional, state, and national mutual aid systems to ensure that appropriate resources are available for response and recovery during and following a disaster.	Office of Emergency Services	Ongoing		Sheriff's Office, CAL FIRE, Fire Districts	Recommended by CAL FIRE
4.2b	POST-DISASTER RECONSTRUCTION. Participate in the development of programs and procedures that emphasize coordination between appropriate public agencies and private entities to remove debris and promote the safe and rapid reconstruction of the County following a disaster event. Evaluate redevelopment after hazard events to facilitate the necessary upgrading of the built environment as expeditiously as possible.	Planning and Building Services	Medium		CAL FIRE, Susanville Indian Rancheria, City of Susanville, Bureau of Land Management, US Forest Service, National Park Service, California Department of Fish and Wildlife, Development Community, Business Community, Real Estate Community, Religious Institutions, School Districts, Insurance Companies, FEMA, Lassen Land & Trails Trust	

EDUCATION AND OUTREACH

Education and outreach actions depend on information sharing and education to encourage private residence to prepare or make upgrades to their private residence. Education and outreach is important to encourage rural community cohesion and can encourage improvements in existing buildings where new ordinances cannot. While education can be staff intensive, partner agencies can lessen this burden and make these actions the most cost effective.

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.2d	PERMIT ENGAGEMENT. To avoid or minimize new residential development in Very High Fire Hazard Severity Zones, engage property owners during the permit process about the fire risks associated with building in these at-risk areas, and the responsibilities laid out in Chapter 9.16 of the County Code. Provide resources to ensure that insurance risks are explained.	Planning and Building Services	Short		CAL FIRE, Fire Districts	Recommended by CAL FIRE
1.6a	PRESCRIBED BURNING. Support Fire Districts and prescribed burning with open lines of communication, regular meetings with Fire Districts, and discussions of the technical assistance available from the County.	Office of Emergency Services	Ongoing		Fire Districts, Planning and Building Services, Bureau of Land Management, National Park Service, US Forest Service, CAL FIRE	Recommended by CAL FIRE
2.2a	HAZARD AND EVACUATION EDUCATION. Promote educational resources to make residents, businesses, community groups, schools and religious institutions aware of evacuation planning and hazards. Emphasize engagement efforts for high priority hazards and at-risk groups or vulnerable populations, as identified in the Community Profiles portion of this Element.	Office of Emergency Services	Medium	X	CAL FIRE, Sheriff's Office, Planning and Building Services, School Districts, Religious Institutions, Fire Districts, Susanville Indian Rancheria, City of Susanville, Business Community	Recommended by CAL FIRE
2.2b	FIRE OUTREACH. Work with CAL FIRE and Fire Districts prior to fire season to utilize partnerships, coordinate outreach events, and leverage County communication resources to educate the public on wildfire preparation and response. Topics should include but are not limited to creating a defensible space around their place of residence, fire landscaping, reducing the potential for the expansion of invasive species that can occur from defensible space projects, Ready! Set! Go!, Red Flag Warning, wildfire ignition risks, resource concerns, and evacuation. Emphasize engagement efforts for fire-hazard priority communities and populations vulnerable to fire.	Administration	Short		CAL FIRE, Sheriff's Office, Planning and Building Services, School Districts, Fire Districts, Susanville Indian Rancheria, City of Susanville, Religious Institutions, Business Community	Recommended by CAL FIRE

GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
2.2e	HOUSEHOLD HAZARDOUS WASTE DISPOSAL. Educate the public on household hazardous wastes and the proper methods of disposal.	Planning and Building Services	Ongoing		Lassen Regional Solid Waste Management Authority	
2.4e	POWER SHUTOFF COORDINATION. Public Safety Power Shutoff (PSPS) coordination between the County, LMUD, and PG&E should occur in order to limit the impacts on residents and businesses. PG&E, LMUD, Plumas Sierra Rural Electric Cooperative, and the County should collaborate while monitoring weather conditions to ensure pertinent information is shared.	Office of Emergency Services	Ongoing		LMUD, PG&E, Plumas Sierra Rural Electric Cooperative	
2.5c	HAZARD RESPONSE TRAININGS. Coordinate with fire protection agencies operating in Lassen County to regularly train community-based emergency response teams, incorporating climate change response and recovery. Encourage recruiting includes a diverse set of community members and leaders.	Office of Emergency Services	Ongoing		CAL FIRE, Fire Districts	Recommended by CAL FIRE

DRAFT

Initial Study/Negative Declaration

Lassen County General Plan Safety Element Update

NOVEMBER 2021

Prepared for:

**LASSEN COUNTY
DEPARTMENT OF PLANNING & BUILDING SERVICES**

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
APCD	Air Pollution Control District
CAAQS	California Ambient Air Quality Standards
CEQA	California Environmental Quality Act
County	County of Lassen
GHG	greenhouse gas
HMP	hazard mitigation plan
LMUD	Lassen Municipal Utility District
NAAQS	National Ambient Air Quality Standards
PSREA	Plumas Sierra Rural Electric Cooperative
SB	Senate Bill
SRA	State Responsibility Area
VHWFSZ	Very High Wildfire Hazard Severity Zone

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1 Introduction

1.1 Project Overview

The proposed project is a comprehensive update to the Safety Element of the Lassen County General Plan. The Lassen County General Plan, which serves as a “blueprint” for development within Lassen County, was first adopted in 1968 and consists of the following elements: (1) Land Use, (2) Natural Resources, (3) Agriculture, (4) Wildlife, (5) Open Space, (6) Circulation, (7) Safety and Seismic Safety, (8) Noise, (9) Housing, and (10) Energy (County of Lassen 1999). In June 2020, the Safety Element was amended to incorporate the then-current Hazard Mitigation Plan. The proposed project would include a full update to the current General Plan Safety Element in accordance with Section 65302 of the California Government Code to reflect current conditions and County of Lassen (County) policies and to incorporate the current Local Hazard Mitigation Plan.

1.2 California Environmental Quality Act Compliance

The California Environmental Quality Act (CEQA), a statewide environmental law described in California Public Resources Code, Sections 21000–21177, applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment. The overarching goal of CEQA is to protect the physical environment. To achieve that goal, CEQA requires that public agencies identify the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts when avoidance or reduction is feasible. It also gives other public agencies and the public an opportunity to comment on the information. If significant adverse impacts cannot be avoided, reduced, or mitigated to below a level of significance, the public agency is required to prepare an environmental impact report and balance the project’s environmental concerns with other goals and benefits in a statement of overriding considerations.

The County’s Department of Planning and Building Services directed and supervised the preparation of this Initial Study (IS)/Negative Declaration (ND). Although prepared with assistance from the consulting firm Dudek, the content contained within, and the conclusions drawn by this IS/ND reflect the independent judgment of the County.

1.3 Initial Study Checklist Overview

Dudek, under the County’s guidance, prepared the Safety Element update’s Environmental Checklist (i.e., IS) in accordance with CEQA Guidelines Sections 15063–15065. The CEQA Guidelines include a suggested checklist to indicate whether a project would have an adverse impact on the environment. The checklist is found in Section 3 of this document. Following the Environmental Checklist, Sections 3.1 through 3.21 include an explanation and discussion of each significance determination made in the checklist for the Safety Element update.

For this IS/ND, the following four possible responses to each individual environmental issue area are included in the checklist:

1. Potentially Significant Impact
2. Less-than-Significant Impact with Mitigation Incorporated
3. Less-than-Significant Impact
4. No Impact

The checklist and accompanying explanation of checklist responses provide the information and analysis necessary to assess relative environmental impacts of the Safety Element update. In doing so, the County will determine the extent of additional environmental review, if any, for the Safety Element update.

2 Project Description

The project proposes a comprehensive update to the Safety Element of the Lassen County General Plan. The Lassen County General Plan, which serves as a “blueprint” for development within Lassen County, was first adopted in 1968 and consists of the following elements: (1) Land Use, (2) Natural Resources, (3) Agriculture, (4) Wildlife, (5) Open Space, (6) Circulation, (7) Safety and Seismic Safety, (8) Noise, (9) Housing, and (10) Energy. In June 2020, the Safety Element was amended to incorporate the then-current Hazard Mitigation Plan. The proposed project would include a full update to the current General Plan Safety Element in accordance with Section 65302 of the California Government Code to reflect current conditions and County policies and to incorporate the current Local Hazard Mitigation Plan.

2.1 Project Location

Lassen County is located in Northeast California and bordered on the north by Modoc County, on the south by Plumas and Sierra Counties, on the west by Shasta County, and on the east by the State of Nevada (See Figure 1, Project Location). Lassen County is approximately 2,910,080 acres and over 63% of the land within the County is public land managed by federal, state, and other governmental agencies (County of Lassen 1999). The City of Susanville is the County seat and only incorporated city in Lassen County. Countywide land uses include residential, commercial, agriculture, open space, timberland, institutional, public/semi-public, and industrial.

2.2 Environmental Setting

Known Hazards

The following details the existing known hazards in Lassen County.

Earthquakes and Geologic Hazards

Earthquakes are sudden ground-shaking events caused by the release of pressure in the earth. This quick release of pressure poses a safety risk to both people and structures due to the unpredictability of magnitude and timing. Earthquakes can occur without warning. There are no U.S. Geological Survey–approved methods of predicting a major earthquake before the event occurs, and therefore, earthquake events pose a major threat to structures and people. It is currently only possible to calculate the probability that a major earthquake event will occur in an area within a given number of years, making long-term earthquake forecasts unreliable and often incorrect (USGS 2020).

Active faults are identified by the U.S. Department of Conservation, and construction of new development is prohibited in areas around them to prevent repetitive loss of structures and threats to the safety of occupants. These unsafe areas around active faults, generally 50 feet, are regulatory zones referred to as Alquist-Priolo earthquake fault zones. Three communities (Milford, Herlong, and Doyle) in Lassen County have Alquist-Priolo zones (see Figure 2, Earthquake Hazards in Lassen County).

In addition to earthquakes, building on steep slopes, expansive soils, and other unstable areas can lead to structures at risk of damage from landslides or liquefaction.

Energy Shortages and Outages

Energy shortages and outages can impact various systems, including electricity, potable water, wastewater, natural gas, communications, and more. These shortages and outages can occur on their own, or be triggered by hazards like wildfires, floods, or severe weather. Shortages and outages can also be human induced. For example, during an extreme heat event, energy companies may conduct planned power outages to reduce wildfire risk, or shortages may occur if the community requires too much energy at any one time and overloads the distribution network.

The Lassen Municipal Utility District (LMUD) and Plumas Sierra Rural Electric Cooperative (PSREA) supply power to Lassen County (County of Lassen, City of Susanville, and Susanville Indian Rancheria 2019). Pacific Gas & Electric (PG&E) provides LMUD with electricity through two PG&E-owned transmission lines. The Caribou line is the primary line and the Hat Creek line is the secondary line. The Hat Creek line is only used as a backup if the Caribou line were to go out; however, the use of the Hat Creek line would cause rolling blackouts across Lassen County.

Climate change will impact energy demand. Energy-intensive equipment, such as air conditioning, could create significant spikes in energy demand at times. Climate change will also increase the frequency and intensity of many hazards, including more intense or frequent severe storms, flooding, and wildfires, which could cause transmission line failures.

Extreme Heat

Extreme heat events are hot days, warm nights, or heat waves that can result in heat-related illness and hospitalization. Extreme heat is measured locally as communities are acclimatized to their historic environment. An extreme heat day is one that is in the hottest 2% of days observed between 1960 and 1990. In Lassen County, an extreme heat event is a day above 89.2°F (UC Berkeley 2021).

Extreme heat occurs in the summer in Lassen County. Climate change is expected to increase the average temperature year-round, including the frequency of extreme heat days. Historically, Lassen County had four extreme heat days per year and is projected to experience 15 extreme heat days per year by 2050. Historically, heat waves last 2.8 days and are projected to increase to 8.2 days between 2020 and 2050 (UC Berkeley 2021).

Flooding

Flooding is caused by increased rain, causing rivers and urban drainage basins to fill and overflow. Increased flooding occurs when rain occurs over a shorter time period, even if there is less overall rain, because the soil does not have enough time to absorb the rainfall. Flooding occurs in low-lying areas near lakes and other waterways. Generally, the floodplain most often refers to the area that would be inundated by a 100-year flood, or the flood that has a 1% chance of occurring in any year (USGS 2021). To further illustrate, a property in the floodplain has a 26% chance of being flooded at least once over the course of a 30-year mortgage. Due to this high risk, property owners in the 100-year flood plain are required by the Federal Emergency Management Agency to purchase flood insurance. The 500-year floodplain is the area that has a 0.2% chance of being flooded on annual basis. Flood insurance is not required in the 500-year flood zone. Flooding occurs in the winter months when Lassen County receives the most rain. Climate change is predicted to increase the number of extreme rain events, when large amounts of rain fall over a short period of time, which does not allow it to infiltrate into the ground. There are floodplains throughout Lassen County (see Figure 3, Flood Zones in Lassen County). In addition to regular flooding from precipitation, dam failures can cause a form of flooding called dam inundation. Only specific communities are downstream from dams in Lassen County.

Wildfire

Wildfires are most commonly caused by lightning or humans through the use of electrical equipment and vehicles, and often start unnoticed. They are known to spread more quickly on dry, windy days and move more easily in an uphill direction and in areas with higher-density vegetation. Wildfires are a natural and important part of the ecosystem, but can become more intense and dangerous as a result of climate change and inadequate land management. Climate change is likely to increase the number of large fires in the region, which are more difficult to control and can pose serious threats to rural communities with limited evacuation routes. When analyzing wildfire risks, State law requires the identification of critical assets, developed areas, and planned uses in Very High Wildfire Hazard Severity Zones (VHWFSZs) and State Responsibility Areas (SRAs) (see Figure 4, Wildfire Hazard Severity Zones in Lassen County). Wildfire severity zones serve to prioritize the most at-risk areas and outline the policies in areas where the state is financially responsible for wildfire. In addition to mapping VHWFSZs and SRAs, State law requires that historical wildfires are mapped to provide a historical context (see Figure 5, Historic Wildfires in Lassen County). Depending on the location of the fire, local, state, or federal firefighting agencies can hold jurisdiction. The majority of Lassen County is covered by state and federal jurisdiction, but some subsets of the County are covered by local fire departments (see Figure 6, Fire Protection Responsibility). In addition, 16 communities in Lassen County have their own recognized fire districts with various levels of full time and volunteer fire fighters.

2.3 Safety Element Update

Background

The Safety Element is one of the seven General Plan elements required by Section 65302 of the California Government Code. This Element addresses the natural and human-made hazards in Lassen County and the potential short- and long-term risk to human life, property damage, and economic and social dislocation resulting from hazard events. The purpose of the County's Safety Element is to outline how the County minimizes, prepares for, responds to, and recovers from hazard events. This includes identifying safe places to build, populations that may need extra help responding to hazards, and how to ensure residents are prepared for hazards (County of Lassen 2021).

The Safety and Seismic Element was originally adopted in 1974 via Resolution #2552 and is part of the County's General Plan. On December 7, 2018, The Lassen County Board of Supervisors adopted a Multi-Jurisdictional, Multi-Hazard Mitigation Plan through Resolution #18-077 with the Federal Emergency Management Agency approving the Plan HMP on January 15, 2019. On June 16, 2020, the Lassen County Board of Supervisors approved Resolution #20-028, which incorporated the HMP into the Safety Element. No other changes to the 1974 version have been made (Lassen County 1974).

Regulatory Setting

The 2018 amendment incorporated the County's updated multi-jurisdictional hazard mitigation plan; however, in Resolution #20-028, the Board of Supervisors acknowledged at the time that the Safety and Seismic Element was still not full in compliance with state law. According to California Governors' Office of Planning and Research, for those jurisdictions that have an adopted hazard mitigation plan (HMP), the next update of their HMP triggers an update to the Safety Element of the General Plan to address climate adaptation and resilience. The January 2019 Multi-Jurisdictional, Multi-HMP was consistent with the requirements of Senate Bill (SB) 379.

The 2019 HMP was used to create this Safety Element update that is consistent with the 2017 California Governors' Office of Planning and Research Guidelines, as well as Assembly Bill (AB) 747 and SB 99, require local governments to identify evacuation routes and evaluate their capacity, safety, and viability under a range of emergency scenarios; and requires local governments to identify residential developments in hazard areas that do not have at least two emergency evacuation routes. SB 79 requires local governments to assess community vulnerability to climate change and develop adaptation goals, policies, and implementation measures. This requirement is tied to the HMP updates.

2021 Safety and Element Update

The goal of the updating the Safety Element is to provide an easy-to-use document that can be quickly understood by County staff and the general public and protects all thing that the residents of Lassen County hold dear. The proposed Safety Element update incorporates recently adopted State laws that require the following to be performed, updated, and included in a Safety Element:

- a) Identify and update information related to:
 - Earthquakes
 - Energy Shortages and Outages
 - Extreme Heat
 - Flooding
 - Wildfire
- b) Prepare a Hazard Assessment for the five hazards listed above and calculate a hazard ranking for each community in Lassen County based on 1) the potential for the hazard impact to occur, and 2) the adaptive capacity of the community's capacity to address a hazard.
- c) Establish goals related to emergency response, fire safety, and power outages and policies that include mitigation, preparedness, response, and recovery components related to natural hazards and human caused hazards that have the potential to occur in Lassen County.

In accordance with state law (Government Code Section 65302), the County has prepared an update to its Safety Element. The proposed Safety Element update includes the addition of four new Goals, as detailed below. Detailed under each Goal are the associated Policies and Actions necessary for implementation by Lassen County.

Goal 1: Minimize risks, such as loss of life, injury, property damage, and natural resource destruction, from natural hazards.

Goal 2: Coordinate preparedness across government agencies, the private sector, and the general public.

Goal 3: Maintain adequate emergency preparedness and response capabilities.

Goal 4: Build Back Stronger.

The proposed Safety Element update is available at: <http://www.co.lassen.ca.us/government/resources/planning-and-building-services>

Community Outreach Event

On May 20, 2021, the Lassen County Planning and Building Services Department held a Safety Element update Community Outreach Event. The purpose of this event was to involve all interested parties to participate in the update process and to assist with identifying goals to the meet the vision of the Safety Element update for the County. The event was promoted in four local newspapers, and on the County website. It was held both virtually and in-person. No interested parties participated.

INTENTIONALLY LEFT BLANK

3 Initial Study Checklist

1. Project title:

Lassen County General Plan Safety Element update

2. Lead agency name and address:

Lassen County, Department of Planning & Building Services
707 Nevada Street, Suite 5
Susanville, California 96130

3. Contact person and phone number:

Gaylon Norwood: 530.251.8269

4. Project location:

Countywide

5. Project sponsor's name and address:

Lassen County, Department of Planning & Building Services
707 Nevada Street, Suite 5
Susanville, California 96130

6. General plan designation:

N/A for General Plan Safety Element update

7. Zoning:

N/A for General Plan Safety Element update

8. Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):

Proposed General Plan Amendment to amend the Lassen County General Plan Safety Element.

9. Surrounding land uses and setting (Briefly describe the project's surroundings):

Lassen County is located in Northeast California and bordered on the north by Modoc County, on the south by Plumas and Sierra Counties, on the west by Shasta County, and on the east by the State of Nevada. The City of Susanville is the County seat and only incorporated city in Lassen County. Countywide land uses include residential, commercial, agriculture, open space, timberland, institutional, public/semi-public, and industrial.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

The Planning Commission and Board of Supervisors for Lassen County are the decision-making bodies for potential adoption of the Safety Element update. No approval would be required from agencies outside of the Lassen County Planning and Building Services Department.

The Safety Element update requires review from the California Department of Forestry and Fire Protection's Resource Protection Committee, and consultation with the California Department of Conservation: Geological Survey.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The Washoe Tribe of Nevada has requested notification pursuant to AB 52 and were notified and invited to consult via mail on October 22, 2021. In addition, on July 30, 2021, the following tribes were invited to consult via mail as part of the SB 18 consultation process: Greenville Rancheria, Honey Lake Maidu, Mooretown Rancheria of Maidu Indians, Pit River Tribe of California - Atwamsini, Hammawi, and Kosealekte Bands, Susanville Indian Rancheria, Tsi Akim Maidu, and the Washoe Tribe of Nevada and California. No responses have been received to date.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less Than Significant With Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

The aesthetic character of Lassen County is generally composed of natural landscapes, with low density rural development in areas of the County outside of incorporated Susanville. Important aesthetic resources in the County include natural forms, such as lakes and rivers, mountains, hills, meadows, geologic formations, and native vegetation.

Explanation of Checklist Judgments:

a-d: No Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current Safety Element update does not propose any policies or actions that would result in impacts to aesthetic resources. The Actions related to Policies 1.5 and 1.7 of the Element would protect and preserve existing natural resources and promote a new habitat conservation. Implementation of the listed Actions under these Policies would preserve the existing aesthetics of the County.

In summary, the Safety Element does not propose actual development or construction, nor does it provide any design guidelines for structures. The proposed Element update will not change or affect the way projects are designed and will not provide any goals, policies, or programs that would significantly degrade

the scenic quality of the County. Existing development standards and design guidelines will remain in place after certification of the Safety Element. Therefore, there would be no impact relative to aesthetics.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

Most of Lassen County has scant rainfall, a short growing season, and severe winters. Other resource limitations which challenge agricultural production in various parts of Lassen County include soil quality and the availability and quality of water resources. Field crops, grain production, and livestock raising are important components of the County's agriculture economy (County of Lassen 1999). Ranked in terms of revenue generated for various

agriculture-related activities, timber harvest was the highest revenue, followed by field crops, fruits/seeds/vegetables, and then livestock (County of Lassen 1999).

Explanation of Checklist Judgments:

a-e: No Impact.

The southern portion of the County has been mapped on the Department of Conservation's Important Farmland Finder; however, land is designated as grazing land, Other Land, Urban and Built-Up Land, and Farmland of Local Importance. There are no lands within the County that is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the Important Farmland map (DOC 2016). The Lassen County General Plan's Agricultural Element contains land use policies and implementation measures related to agricultural. No changes are proposed to the Agricultural Element of the Lassen County General Plan and the Safety Element Amendment would not alter the County's current policies related agriculture resources.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current update includes Policy 1.4, Economic and Recreational Resources Protection, which minimizes the economic loss and disruption to agriculture and recreation resources from natural and human-caused hazards. Actions related to this Policy include fuel management, weed abatement, and planting of climate tolerant crops. Policy 1.6, Hazard Mitigation through Partnerships, encourages hazard mitigation programs by non-governmental and private sector organizations and includes Actions related to vegetation management and watershed protection. This Policy will assist in improving forest health and preserving sensitive habitats while balancing public health and safety. The inclusion of Policies 1.4 and 1.6 and their associated Actions would not result in impacts to agricultural and forestry resources and therefore, the Safety Element update would have no impact on agricultural and forestry resources.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting

Lassen County is located in the Northeast Plateau Air Basin. In general, air emission sources in Lassen County are associated with motor vehicles, wood-burning stoves, wildfires, prescribed fires, and fugitive dust from unimproved roads and sparsely vegetated or unvegetated lands, including dry lakebeds. Periodic emissions occur from agricultural activities, such as discing and agricultural waste burning (Lassen County 1999).

State and Federal air quality standards have been established for specific "criteria" air pollutants, including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. In addition, there are State standards for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. State standards are called California Ambient Air Quality Standards (CAAQS) and federal standards are called National Ambient Air Quality Standards (NAAQS). NAAQS are composed of health-based primary standards and welfare-based secondary standards.

The Lassen County Air Pollution Control District (APCD) has regulatory jurisdiction over the County's air quality permitting process. The District's air pollution regulations comply with the standards established by Environmental Protection Agency Guidelines (County of Lassen APCD 2021).

The APCD, through the Air Pollution Control Officer and with technical assistance from the California Air Resources Control Board, reviews proposals and plans to ensure that air quality standards are met. Projects that may emit pollutants from a stationary source must obtain an Authority to Construct Permit from the APCD prior to construction. After construction of the facility is completed and the project can demonstrate that it can operate in compliance with emission requirements set forth in the Authority to Construct, a Permit to Operate must be obtained (County of Lassen APCD 2021).

The overall air quality of Lassen County is considered adequate by the APCD. The Air Quality Index in Lassen County is classified as "Good" the majority of the year. Wildfires and inversion layers during the winter can periodically degrade the air quality in the County (County of Lassen APCD 2021). Under the state air quality standards, the basin is in attainment for nitrogen dioxide, sulfur dioxide, ozone, carbon monoxide, and lead. It is unclassified for PM₁₀ (CARB 2017). An air basin is unclassified for a criteria pollutant when the available data is insufficient to determine attainment status. Unclassified areas are treated as attainment areas until proven otherwise (County of Lassen 1999).

Explanation of Checklist Judgments:

a-d: No Impact.

The Lassen County General Plan's Natural Resources Element Section 10 contains goals, policies, and implementation measures related to air quality. No changes are proposed to the Natural Resources Element of the Lassen County General Plan the Safety Element Amendment would not alter the County's current policies related to air quality.

The Safety and Seismic Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current Safety and Seismic Element update does not propose any policies or actions that would result in impacts to air quality; therefore, there would be no impacts.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting

Lassen County contains extensive natural open space that supports diverse plant communities and wildlife that depend upon these habitats. At elevations below 6,500 feet the dominant native vegetation community is the mixed conifer forest. Ponderosa and Jeffrey pines, sugar pine, and white fir occur in this natural plant community. Above the mixed conifer forest, at elevations between 6,500 and 8,000 feet, the major natural plant community is the red fir forest, characterized by western white pine, mountain hemlock, and lodgepole pine. From 8,000 feet to tree line, plants are fewer in overall number with exposed patches of bare ground providing a harsh environment. Rock spirea, lupine, Indian paintbrush, and penstemon are a few of the rugged members of this community (County of Lassen 1999). Important wildlife mammal species found in Lassen County include black bear, mountain lion, red fox, and deer. Avian species include rough-legged hawk, great gray owl, osprey, grouse, and hummingbirds (County of Lassen 1999).

Explanation of Checklist Judgments:

a-f: Less Than Significant Impact.

The Lassen County General Plan contains the Land Use Element and the Natural Resources Element, which include discussions and policies related to biological resources. The Wildlife Element is an extension of the Natural Resources Element and contains additional goals, policies, and implementation measures related to wildlife and wildlife habitat.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current update includes policies and actions under Goal 1 related to protection and preservation of sensitive biological resources, in addition to those already in the Land Use, Natural Resources, and Wildlife Elements.

The update to the Safety Element does not alter any local, regional, state, or federal biological protection standards, nor would it alter the County's existing general plan policies related to protection and preservation of sensitive biological resources. The proposed Safety Element update does not encourage development to be located in stream corridors, wetlands, riparian areas, or any other type of habitats for endangered or threatened species. Therefore, the Safety Element update would have a less-than-significant impact on biological resources.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting

The Lassen area was a gathering place for at least four American Indian groups: Atsugewi, Yana, Yahi, and Maidu. Because of its weather and snow conditions, generally high elevation, and seasonally mobile deer populations, the Lassen area was not conducive to year-round living. These Native American groups camped here in warmer months for hunting and gathering, leaving behind evidence that has been recorded as archaeological resources (NPS 2021). The California Office of Historic Preservation lists a number of emigrant trails and two historic fort locations in Lassen County (OHP 2021).

Explanation of Checklist Judgments:

a-c: Less Than Significant Impact.

The Lassen County General Plan contains the Natural Resources Element that includes discussions and policies related to cultural and historic resources. The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts.

The Lassen County General Plan (1999) contains policies for the protection of cultural and historic resources and all new development must be consistent with these policies. Additionally, Chapter 12.29 (Historic Building Preservation Ordinance) of the Lassen County Code focuses on the identification and designation of historic resources. AB 52 and SB 18 require early consultation with culturally affiliated tribes in the area. As future projects are planned and developed, they must adhere to these General Plan policies, Municipal Code regulations, and AB 52 and SB 18 Tribal consultations as they pertain to historical and culturally sensitive resources.

It is not expected that human remains would be disturbed as a result of implementation of the Safety Element update, and no ground-disturbing activities are proposed. In the unlikely event that human remains are discovered, then the provisions set forth in California Public Resources Code Section 5097.98 and state Health and Safety Code Section 7050.5 would be implemented in consultation with the assigned Most Likely Descendant as identified by the NAHC. No further construction activities would be permitted until the coroner is contacted, as well as any applicable Native American tribes. The County shall be required to comply with the California Native American Graves Protection and Repatriation Act (2001), the federal Native American Graves Protection and Repatriation Act (1990), as well as AB 52 and SB 18 early

consultation requirements. As regulations are in place to treat any inadvertent uncovering of human remains during grading, impacts to human remains would be less than significant.

The Safety Element update would not change or alter policies to protect and/or review cultural resources. Therefore, impacts are less than significant.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

Lassen County produces electricity from two main sources: Honey Lake power plant, a hybrid facility using biomass and geothermal resources; and Muck Valley, a hydroelectric facility on the Pit River. Cogeneration units fueled with wood waste from lumber mills has been a secondary source of electrical power generation. Geothermal power production in the County has included two power plants, Wineagle and Amedee. Both plants are located on the northern shore of Honey Lake, near Wendel (County of Lassen 1999).

Explanation of Checklist Judgments:

a-b: Less Than Significant Impact.

The Lassen County General Plan's Energy Element contains goals, policies, and implementation measures related to energy related-utility issues. No changes are proposed to the Energy Element of the Lassen County General Plan and the Safety Element update would not alter the County's current policies related to energy utilization.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current update includes policies and actions listed under Goal 1 and Goal 2 related to efficient and sustainable energy utilization, in addition to those already in the Energy Element. Therefore, the Safety Element update would result in less-than-significant impacts associated with energy.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

Lassen County lies at the intersection of four major physiographic provinces: the Sierra Nevada, the Cascade Range, the Modoc Plateau, and the Basin and Range Province. These physiographic provinces are determined by their geologic structure and formation (County of Lassen 1999).

The rocks of the Sierra Nevada are essentially the exposed granite of the Sierra Batholith and associated sedimentary and contact metamorphic rocks with some late Tertiary volcanics. Although there are some granitic features north of Susanville, the Diamond Mountains are commonly regarded as the northern-most part of the Sierra Nevada Range (County of Lassen 1999).

The Cascade Range extends from the northern end of the Sierra Nevada to the Canadian border and is especially noted for the many great and recently active volcanoes scattered along its entire length. The exposed rocks of the California Cascades are predominantly volcanics of great variety and form (County of Lassen 1999).

The Modoc Plateau is an undulating platform composed of various volcanic materials, principally Miocene to recent basaltic lava flows with some sedimentary and tuffaceous interbeds. The average elevation of the area is 4,500 feet above sea level, but many peaks exceed this level. The Modoc Plateau consists of a series of northwest to north-trending block faulted ranges and deposits resulting from the disruption of drainage by faulting or volcanism. The geologic history of the Modoc Plateau is closely connected to that of the Cascade Range and Basin and Range Provinces. Quaternary volcanic flows of the Cascade Range overlap the western boundary of the Modoc Plateau (County of Lassen 1999).

The Basin and Range Province consist typically of north-south trending fault-block mountains separated by valleys, many of which are closed basins. Most of the province is located in neighboring Nevada. The sharply defined structure of the Honey Lake Valley, formed by the presence of fault zones along its borders, is characteristic of the Basin and Range Province. Interior drainage, resulting in playas such as Honey Lake, is also a common characteristic of basins in this province. North-trending normal faults bound basins and ranges throughout much of this province. Prominent right-lateral faults in the western Basin and Range constitute a generally northwest trending zone known as the Walker Lane belt (County of Lassen 1999).

In general, the soils in the County can be separated into two broad groups: (1) residual soils that have developed in place, and (2) transported soils formed by sediments deposited by wind, water, or ice. The formation and distribution of soils on the landscape are influenced by the parent geology and the material, climate, topography, and vegetation present in the soil-forming environment (County of Lassen 1999)

Explanation of Checklist Judgments:

a-f: Less than Significant Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts.

- a: Lassen County lies within a region known to be seismically active, the potential exists for people and structures associated with new residential projects to be exposed to strong ground shaking, ground failure, and soil instability. The communities of Milford, Herlong, and Doyle have Alquist-Priolo fault zones as shown on Figure 2. The Lassen County General Plan contains land use policies and implementation measures related to seismic hazards and development requirements. The current update to the Safety Element includes policies and actions listed under Goal 1 and Goal 2 related to the construction with an Alquist-Priolo fault zone and the protection of critical infrastructure from seismic events, in addition to those already in the General Plan.

Additionally, the potential for significant adverse impacts to result from these phenomena would be substantially reduced through adherence to requirements specified in the Alquist-Priolo Act, the Uniform Building Code, Title 24 of the California Building Code, and all development regulations of the County. Compliance with these building standards and the incorporation on the updated policies and actions would minimize impacts associated with seismic hazards.

- b-e: Most lowland areas with relatively level ground surface are not prone to landslides. Other forms of slope instability are also unlikely to occur, except along stream banks and terrace margins. Highland and mountainous areas are more susceptible to slope instability. The strong ground motion that occurs during earthquakes is capable of inducing landslides and debris flow (mudslides). These types of failure generally occur where unstable slope conditions already exist.

The Lassen County General Plan contains the Geologic and Soil Resources section of the Natural Resources Element and includes goals, policies, and implementation measures related to soil resources. According to the General Plan, soil issues are of concern to many areas within Lassen County, including irrigated cropland, where problems include wind erosion, streambank erosion, sedimentation, salinity, high water table and urban encroachment. Wind erosion is a problem in many areas, especially agricultural areas having sandy soils. The County has geologic review procedures to address these issues for new development and all new development is required to be consistent with these regulations.

- f: Depending on the location, future development in the County has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The update to the Safety Element would not change existing policies for the protection of paleontological resources and all new development would be required to be consistent with these policies.

In conclusion, the Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The current Safety Element update proposes updated goals, policies, and actions that support the reduction of impacts related to natural hazards (e.g., ground shaking and liquefaction), specifically those listed in Section 2 of the Natural Resources Element. Based on the above, the Safety Element update would result in less-than-significant impacts associated with geology and soils.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

Greenhouse gases (GHGs) are those gases that trap heat in the atmosphere. GHGs are emitted by natural and industrial processes, and the accumulation of GHGs in the atmosphere regulates the earth's temperature. GHGs that are regulated by the state and/or the Environmental Protection Agency are carbon dioxide, methane, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrous oxide. Carbon dioxide emissions are largely from fossil fuel combustion. In California, approximately 43% of the carbon dioxide emissions come from cars and trucks. Electricity generation is another important source of carbon dioxide emissions. Agriculture is a major source of both methane and nitrous oxide, with additional methane coming primarily from landfills. Most hydrofluorocarbon emissions come from refrigerants, solvents, propellant agents and industrial processes, and persist in the atmosphere for longer periods, and have greater effects at lower concentrations compared to carbon dioxide. Global warming's adverse impacts include impacts to air quality, water supply, ecosystem balance, sea level rise (flooding), fire hazards, and an increase in health-related problems.

AB 32, the California Global Warming Solutions Act, was adopted in September 2006 and required that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through regulations to reduce emissions from stationary sources and from vehicles. The California Air Resources Board is the state agency responsible for developing rules and regulations to cap and reduce GHG emissions. In addition, the Governor signed SB 97 in 2007, directing the California Office of Planning and Research to develop guidelines for the analysis and mitigation of the effects of greenhouse gas emissions and mandating that GHG impacts be evaluated in CEQA documents. CEQA Guidelines Amendments for GHG Emissions were adopted by the California Governors' Office of Planning and Research on December 30, 2009.

Explanation of Checklist Judgments:

a-b: Less Than Significant Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The current Safety Element update does not propose any policies or actions that would result in impacts to greenhouse gas emissions.

The Safety Element update would have a less-than-significant impact on GHG emissions.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

The interface of the natural and manmade environments within Lassen County and the presence of industries that employ materials classified as hazardous pose potential safety hazards associated with wildfires and risk of upset. Other potential safety hazards include naturally occurring asbestos, past mining operations, and airport operations.

Explanation of Checklist Judgments:

e: No Impact. a-d and f-g: Less Than Significant Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts.

a-d: The current update includes goals, policies, and actions related to hazardous material uses, siting, management, and disposal, in addition to those already in the Lassen County General Plan. Pertinent policies and actions related to hazardous material transport, handling, disposal, and siting listed under Goal 1 and Goal 2 of the update.

In addition to the above policies and actions, any future development would be evaluated using appropriate databases including the California Department of Toxic Substances Control EnviroStor database that, pursuant to Government Code Section 65962.5, lists Federal Superfund, State Response, Voluntary Cleanup, School Cleanup, Hazardous Waste Permit, and Hazardous Waste Corrective Action sites. The potential impacts related to any listed hazardous materials sites associated with any specific future projects will be assessed at the time the projects are proposed. Mitigation measures would then be adopted as necessary, in conformance with CEQA.

e: The current update would not impact people residing or working within 2 miles of a public airport or public use airport. The proposed update includes a Policy and Action related to airport compatibility under Goal 1, which encourages the Airport Land Use Commission to review the Airport Land Use Compatibility Plan at least every 5 years to ensure that the Airport Land Use Compatibility Plan accurately defines planning areas around airports and establish land use policies and standards appropriate for the public safety and protection of airport operations.

f-g: The current update includes goals, policies, and actions related to emergency evacuation and response plans and wildfire risks, in addition to those already in the Lassen County General Plan. Pertinent policies and actions related to implementation of emergency response plans, and loss, injury, or death due to wildfires are listed under Goal 1, Goal 2, and Goal 3 of the update.

In conclusion, the Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The current Safety Element update proposes updated goals, policies, and actions that support the reduction of impacts related to the transport, disposal, and accident conditions of hazardous materials, implementation of emergency response plans, and loss, injury, or death due to wildfires. Based on the above, the Safety Element update would result in less than significant impacts associated with hazards and hazardous materials.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

Lassen County encompasses 4,547 square miles (2,910,080 acres) of varied topography. The highest point in Lassen County is 8,737 feet above mean sea level at Hat Peak in the northeast, and the lowest elevation is 3,270 feet above mean sea level, where the Pit River exits the county to the west (County of Lassen 2007). Temperature and precipitation follow noticeable patterns for various regions in Lassen County. Lower elevations generally experience warmer temperatures with lesser amounts of annual rainfall, in contrast to higher elevations that experience cooler temperatures throughout the year and greater amounts of annual snowfall (County of Lassen 2007).

The mountains within Lassen County influence precipitation; greater precipitation typically occurs in the county's western portion at higher elevations. Precipitation is caused by orographic uplift, as air temperatures cool as the air mass rises over the mountains, resulting in condensation that falls as precipitation (County of Lassen 2007).

Lassen County's rivers and streams' hydrologic characteristics vary depending on the watershed of origin, area-elevation relationships, and snowfall accumulation patterns. This section describes flows on three of Lassen County's rivers and creeks: the Pit River, the Susan River, and Long Valley Creek (County of Lassen 2007).

There are seven watersheds in Lassen County, including Duck Flat, Feather River, Madeline Plains, Pit River, Smoke Creek, Surprise Valley, and Susan River. The Pit River flows through the northwestern portion of the County, draining to the west. The Susan River flows easterly to Honey Lake in the central portion of the County. Long Valley Creek flows from Upper Long Valley north into Honey Lake. Honey Lake, the largest lake in Lassen County, receives water from the Susan River, Long Valley Creek, Baxter Creek, and Willow Creek (County of Lassen 2007).

There are 24 groundwater basins in Lassen County, including four priority basins: Big Valley, Willow Creek Valley, Long Valley, and Honey Lake Valley. Priority basins were identified from stakeholder input, land use, water source patterns, and existing groundwater well infrastructure. The majority of groundwater monitoring also occurs in the priority basins. Less information is available for the other groundwater basins in Lassen County (County of Lassen 2007).

Explanation of Checklist Judgments:

a-f: Less than Significant Impact.

Lassen County General Plan's Land Use Element and Natural Resources Element contain goals, policies, and implementation measures related to hydrology and water quality issues. No changes are proposed to

these Elements of the Lassen County General Plan are proposed and the Safety Element update would not alter the County's current policies related to hydrology and water quality.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current update includes policies and actions listed under Goal 1 and Goal 2 related to water quality, water usage, and groundwater sustainability, in addition to those already in the Land Use Element and Natural Resources Element. Therefore, the Safety Element update would result in less-than-significant impacts associated with hydrology and water quality.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

The need to achieve and maintain compatibility between adjacent land uses has long been a primary goal in land use planning in Lassen County. Compatibility is needed not only to protect property values and land use opportunities but also to preserve the general harmony, peace of mind, and perceived quality of people in the County (County of Lassen 1999).

Explanation of Checklist Judgments:

a: No Impact. b: Less than Significant.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The Safety Element update does not propose any policies or actions that would result in physically dividing an existing community. Additionally, the current Safety Element update would not conflict with Lassen County General Plan policy, ordinances, codes, or regulations, adopted for the purpose of avoiding or mitigating an environmental effect. The update would not conflict with any approved habitat conservation or natural community's conservation plans. Therefore, impacts would be less than significant.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting:

The discovery of gold along the base of Diamond Mountain in 1856 and at Hayden Hill in 1870 fostered the settlement of the northern sectors of Lassen County. From around 1980 to 1989, the Hayden Hill area experienced a resurgence of interest and speculation in precious metals mining (County of Lassen 1999).

In 1989, Lassen Gold Mining Inc. made applications to the County of Lassen and the Bureau of Land Management for a new open pit mine with heap leach and mill processing facilities. The project was approved for development in September 1991. The Hayden Hill mining operation was constructed in the spring of 1992 and poured its first bar of Dore (gold and silver) on June 15, 1992. At the end of 1997, active mining at Hayden Hill was terminated (County of Lassen 1999).

Although the Diamond Mountain and Hayden Hill areas have been the predominate precious metal producers in Lassen County, there have been more modest discoveries and mining of gold and silver in other locations in Lassen County, including Round Valley and Skedaddle Mountain. Reports of high grade deposits of iron ore and copper have been made in the Mountain Meadows area, but these reports have never been verified or the resource developed (County of Lassen 1999).

Rhyolite tuff has been quarried at the west end of Susanville and in the Wendel area; this quarry stone was used extensively in Susanville's business district and also exported for a number of buildings in Alturas. Clay deposits in the Honey Lake Valley led to brick kiln operations from the late 1800's through about 1930. Deposits of gravel and cinders have been mined for base materials for railroads and road construction. (County of Lassen 1999).

Significant deposits of commercial grade pozzolan, known locally as lassenite, occur in Long Valley as lacustrine sediments and diatomaceous shale of Mio-Pliocene age. Pozzolan is a light, porous ash-sized siltstone composed of partially hydrated rhyolitic glass ash with some pumiceous and diatomaceous material. Pozzolan material is used as an additive to (or blended with) cement, contributing strength and water tightness to produce superior concretes (County of Lassen 1999).

Explanation of Checklist Judgments:

a and b: No Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. Section 7 of the Lassen County General Plan's Natural Resource Element contains goals, policies, and implementation measures related to mineral resource issues. No changes are proposed to the Natural Resources Element of the Lassen County General Plan regarding mineral resources. Therefore, no impacts would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting:

Lassen County is characterized primarily by undeveloped natural open space with small, interspersed towns or villages, and one incorporated city (County of Lassen 1999). Primary noise sources in the County include highways and major roadways, airports, and major stationary sources associated with commercial or industrial enterprises; minor noise sources can be found in individual communities, generally associated with commercial businesses and local roadways.

Explanation of Checklist Judgments:

a-c: No Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The Lassen County General Plan contains goals, policies, and implementation measures related to noise issues. No changes are proposed to the Lassen County General Plan related to noise. Therefore, no impacts would occur.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting:

The 2019 General Plan Housing Element update (County of Lassen 2019) indicated implementation of the proposed Housing Element update would have the potential to increase the County's population by approximately 186 if all of the projected 77 units were new to the County, and all of the residents were also new to the County. If all new units are occupied by new residents, the change in population represents 1.17% of the 2018 population of the County, which was 15,957 people. The population of the County is projected to decline to 15,946 in 2020, which represents a decrease of 0.07% from the 2018 population. By 2050, the population is expected to decline to 14,548 which is a decrease of 8.82% from the 2018 population (County of Lassen 2019).

Explanation of Checklist Judgments:

a and b: No Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce

environmental impacts. The Housing Element of the Lassen County General Plan contains goals, policies, and implementation measures related to population and housing. The current Safety Element update does not propose any policies or actions that would result in impacts related to population and housing. Therefore, no impacts would occur.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

Public services within the unincorporated County are provided by the County of Lassen, state and federal agencies, and numerous special districts, including fire protection districts, school districts, park and recreation districts, and an irrigation district.

Explanation of Checklist Judgments:

a-b: Less Than Significant Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The current Safety Element update does not propose any policies or actions that would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

The Safety Element update would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services listed above. These general plan update would not change or impact standards, policies, programs, and regulations in place that ensure adequate provision of public services.

Based on the above, the Safety Element update would have a less-than-significant impact on public services.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Existing Setting:

Recreational opportunities within Lassen County are varied, ranging from parks, campgrounds, a downhill ski park, boat ramps and public swimming areas. Many natural resource areas offer unique resources that support the potential for the development of recreation facilities. This is true in the case of the County's Susanville Ranch park property northwest of Susanville. It may also be true for areas having potential for downhill ski areas, golf courses, RV parks, or other recreation-related development projects (County of Lassen 1999).

Explanation of Checklist Judgments:

a-b: No Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The current Safety Element update does not propose any policies or actions that would result in impacts related to recreation.

Based on the above, the Safety and Seismic Element update would have no impact on recreation.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

Lassen County is served by one federal highway and six state highways. These highways provide the main regional transportation routes for automobiles and trucks. The highway network includes U.S. Highway 395 and State Routes 36, 44, 70, 139, 147, and 299 (Lassen County 2000). The Lassen County transportation system also includes a county road network consisting of approximately 905 miles of roadway. Within the City of Susanville is a municipal street system of approximately 39 miles (County of Lassen 1999).

There is also within Lassen County a significant number and mileage of roads on federal lands, including lands managed by the National Park Service, Forest Service, and the Bureau of Land Management. These roads and the other highways and roads which cross federal lands provide access for the use and enjoyment of the public. For example, the 1992 Land and Resource Management Plan of the Lassen National Forest reported that the Forest contained 3,472 miles of “forest development roads” (not all of which are in Lassen County). There are also approximately 1,200 miles of roads on Bureau of Land Management administered lands (County of Lassen 1999).

Explanation of Checklist Judgments:

a-d: Less Than Significant Impact.

Lassen County General Plan’s Circulation Element contain goals, policies, and implementation measures related to transportation and traffic within the County. No changes are proposed to the Circulation Element of the Lassen County General Plan are proposed and the Safety Element update would not alter the County’s current policies related to transportation and traffic.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current update includes policies and actions listed under Goal 1 and Goal 2 related to the use and improvement of evacuation routes during emergency situations, in addition to those already in the Circulation Element. The Safety Element update would not increase hazards due to a design feature, result in inadequate emergency access, or conflict with adopted policies, plans, or programs supporting alternative transportation. Therefore, the Safety Element update would result in less-than-significant impacts associated with transportation and traffic.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Existing Setting:

The Lassen area was a gathering place for at least four American Indian groups: Atsugewi, Yana, Yahi, and Maidu. Because of its weather and snow conditions, generally high elevation, and seasonally mobile deer populations, the Lassen area was not conducive to year-round living. These Native American groups camped here in warmer months for hunting and gathering, leaving behind evidence that has been recorded as archaeological resources (NPS 2021). The California Office of Historic Preservation lists a number of emigrant trails and two historic fort locations in Lassen County (OHP 2021).

Explanation of Checklist Judgments:

a-b: Less than Significant Impact.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. The current Safety Element update would not change or alter policies to protect tribal cultural resources. No development is proposed as part of this Safety Element update.

The Washoe Tribe of Nevada has requested notification pursuant to AB 52 and were notified and invited to consult via mail on October 22, 2021. In addition, on July 30, 2021, the following tribes were invited to consult via mail as part of the SB 18 consultation process: Greenville Rancheria, Honey Lake Maidu, Mooretown Rancheria of Maidu Indians, Pit River Tribe of California - Atwamsini, Hammawi, and Kosealekte Bands, Susanville Indian Rancheria, Tsi Akim Maidu, and the Washoe Tribe of Nevada and California. No responses have been received to date.

Based on the above, the Safety Element update would result in less-than-significant impacts to tribal cultural resources.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation of Checklist Judgments:

a-b: Less Than Significant Impact; c-e: No Impact.

Lassen County General Plan's Circulation Element contain goals, policies, and implementation measures related to utility and service system issues. No changes are proposed to the Circulation Element of the Lassen County General Plan and the Safety Element update would not alter the County's current policies related to utilities and service systems.

The Safety Element is a policy document that establishes the County's goals, policies and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts. The current update includes policies and actions listed under Goal 1 related to utilities and service systems, in addition to those already in the Circulation Element. The proposed update would not result in the need for the expansion of existing systems or the construction of new systems, in compliance with applicable statutes and regulations, nor would it result in the production of excess solid wastes. Therefore, the Safety Element update would result in less-than-significant impacts associated with utilities and service systems.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Explanation of Checklist Judgments:

a-d: Less Than Significant Impact.

The Safety Element is a policy document that establishes Lassen County's goals, policies, and actions related to the natural and human-caused hazards and the risk to human life, property damage, and economic and social dislocation from hazard events within the County. Therefore, its adoption would not, in itself, produce environmental impacts.

Lassen County General Plan's Natural Resource Element, Wildlife Element, Open Space Element, and Safety Element all contain goals, policies, and implementation measures related to wildfire hazards. No changes are proposed to the Natural Resources Element, Wildlife Element, and Open Space Element of the Lassen County General Plan. The current Safety Element update does propose updated goals, policies and actions that support the reduction of impacts related to wildfire. While many of the fire related actions are a continuation of current County policies that align with State regulations, many include refinements that prioritize or increase the specificity of the actions being undertaken. Actions span the topics of vegetation management, water availability, critical facility siting, development code specific to fire hazard severity zones, fire response, evacuation, shelters, outreach specific to fire mitigation, fire hazard assessments, and post-disaster reconstruction. Those policies and actions associated with Goal 1, Goal 2, Goal 3, and Goal 4 would be implemented to mitigate wildfire risk in high wildfire hazard severity zones and wildfire prone areas. Therefore, based on the above, the Safety Element update would have a less-than-significant impact on wildfire.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Explanation of Checklist Judgments:

a-f: Less than Significant Impact.

As discussed throughout the Initial Study Checklist, the Safety Element update is a policy document and adoption of this Element alone would not produce environmental impacts. The Safety Element update would not identify, describe, promote, entitle, or permit any particular development projects. The act of adopting the Safety Element update does not, therefore, have the potential to result in environmental impacts, either limited or cumulative, affecting habitat, plant or animal communities, protected species, historic resources, or human beings.

4 References and Preparers

4.1 References Cited

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- OHP (California Office of Historic Preservation). 2021. California Historic Landmarks by County: Lassen. Accessed October 29, 2021. https://ohp.parks.ca.gov/?page_id=21426.

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4.2 List of Preparers

Lassen County Planning and Building Services

Graylon Norwood, Assistant Director
Nancy McAllister, Associate Planner

Dudek

Rose Newberry, AICP, Climate and Environmental Justice Planner
Henry Eckold, Planner
Ronelle Candia, Senior CEQA/NEPA Project Manager

Figure 1 Project Location

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Figure 2 Earthquake Hazards in Lassen County

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Figure 3 Flood Zones in Lassen County

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Figure 4 Wildfire Hazard Severity Zones in Lassen County

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Figure 5 Historic Wildfires in Lassen County

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Figure 6 Fire Protection Responsibility

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County of
LASSEN

Safety Element
of the
Lassen County General Plan

Adopted: September 3, 1974, as
Exhibit “B” (“Safety and Seismic Safety Element”)
of Resolution Number 2552
(NOTE: The Noise Element, referred to as Exhibit A of the above
referenced resolution has been updated as a separate document)

Amended: June 16, 2020
Resolution NO. 20-028

RESOLUTION NO. 20-028

RESOLUTION OF THE LASSEN COUNTY BOARD OF SUPERVISORS
ADOPTING GENERAL PLAN AMENDMENT #700.02.01, INCORPORATING THE
HAZARD MITIGATION PLAN INTO THE SAFETY ELEMENT

WHEREAS, the Board of Supervisors of Lassen County, after due notice and a public hearing conducted June 16, 2020, has considered an amendment to the Lassen County Safety Element. Said amendment proposes to incorporate the Multi-Jurisdictional, Multi-Hazard Mitigation Plan (HMP), adopted by the Board of Supervisors, Susanville City Council and the Susanville Indian Rancheria and approved by the Federal Emergency Management Agency on January 15, 2019, into the Lassen County Safety Element; and

WHEREAS, a safety element is required pursuant to subsection “(g)” of section 65302 of the California Government Code; and

WHEREAS, On December 7, 2018, through Resolution Number 18-077, the Lassen County Board of Supervisors adopted a Multi-Jurisdictional, Multi-Hazard Mitigation Plan (HMP), with the City of Susanville and the Susanville Indian Rancheria; and

WHEREAS, The Federal Emergency Management Agency (FEMA) approved the Multi-Jurisdictional, Multi-Hazard Mitigation Plan (HMP) plan on January 15, 2019; and

WHEREAS other than adopting the above referenced HMP into the Safety Element, this amendment does not amend the current (1974) Lassen County Safety Element (Exhibit “B” of Board of Supervisors Resolution 2552, titled “Safety and Seismic Safety Element”); and

WHEREAS, the proposed amendment was considered by the California Board of Forestry and Fire Protection on April 7, 2020, in accordance with section 65302.5 of the California Government Code, and no objections to incorporating the HMP into the Safety Element, without first completing a comprehensive update of Safety Element, were raised by the California Board of Forestry and Fire Protection; and

WHEREAS, the Lassen County Planning Commission conducted a public hearing on May 5, 2020, and adopted Resolution Number 5-04-20, recommending that the Board of Supervisors approve General Plan Amendment Number 700.02.01; and

WHEREAS, all noticing required to conduct this public hearing has been properly executed. This includes noticing required by Government Code sections 65302, 65302.5, 65352.3, 65352.4 and other Planning and Zoning Law; and

WHEREAS, the Environmental Review Officer of the County of Lassen has determined that the project is exempt from the requirements of the California Environmental Quality Act under Sections 15307, 15308 and 15061(b)(3) of the California Environmental Quality Act Guidelines.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The foregoing recitals are true and correct.
2. The Lassen County Board of Supervisors finds as follows:
 - a. The proposed amendment is consistent with all other elements of the *Lassen County General Plan, 2000* and all *Area Plans*, and the provisions of the Lassen County Zoning Ordinance.
 - b. The proposed amendment does not meet all requirements for a safety element, as described at section 65302 of the California Government Code. Specific deficiencies are described in the document prepared for the Board Of Forestry and Fire Protection's April 7, 2020, meeting titled "General Plan Safety Assessment, Board of Forestry and Fire Protection: Lassen County – Final Review." As such, in accordance with subsection "(b)(3)" of section 65302.5 of the Government Code, on May 15, 2020, the Lassen County Planning and Building Services Department sent a letter to the Board of Forestry and Fire Protection asking if said Board of Forestry and Fire Protection would like consultation with the Board of Supervisors in accordance with said section. As of the date of this hearing, there has not been a response to said letter. Lassen County Planning and Building Services Department's May 15, 2020, notice is included in the June 16, 2020, Board of Supervisors packet and is incorporated by reference.
3. The Board of Supervisors hereby concurs with staff and with the Board of Forestry and Fire Protection that a comprehensive Safety Element update needs to be completed as soon as possible. The only intent of this amendment is to incorporate the current Multi-Jurisdictional Multi-Hazard Plan into the Lassen County Safety Element. Staff has been directed to complete a full update of the Lassen County Safety Element, in accordance with section 65302 of the California Government Code for consideration by the Board of Supervisors at a future date.
4. The Board of Supervisors hereby concurs with the Environmental Review Officer that the project qualifies for an exemption from the California Environmental Quality Act under Sections 15307, 15308 and 15061(b)(3) of the 2019 California Environmental Quality Act Guidelines.
5. The Board of Supervisors hereby adopts Safety Element Amendment #700.02.01, incorporating the Hazard Mitigation Plan into the Safety Element.

The foregoing resolution was adopted at a regular meeting of the Board of Supervisors of the County of Lassen, State of California, held on the 16th day of June, 2020, by the following vote:

AYES: Supervisors Teeter, Gallagher, Albaugh and Hammond.

NOES: None.

ABSTAIN: None.

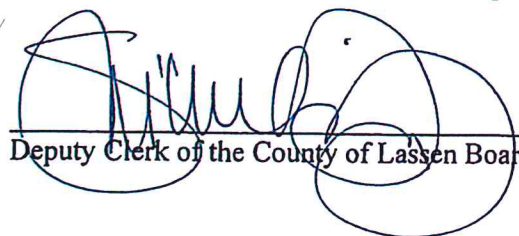
ABSENT: Supervisor Hemphill.

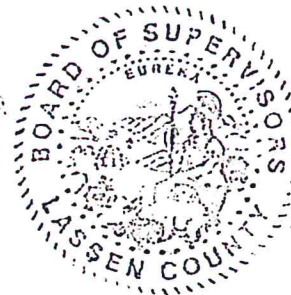

Chairman of the Board of Supervisors
County of Lassen, State of California

ATTEST:
JULIE BUSTAMANTE
Clerk of the Board

BY 
MICHELE YDERRAGA, Deputy Clerk of the Board

I, MICHELE YDERRAGA, Deputy Clerk of the Board of the Board of Supervisors, County of Lassen, do hereby certify that the foregoing resolution was adopted by the said Board of Supervisors at a regular meeting thereof held on the 16th day of June, 2020.


Deputy Clerk of the County of Lassen Board of Supervisors



LASSEN COUNTY GENERAL PLAN
SAFETY ELEMENT

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NOTE: Exhibit “B” of the resolution 2552 (which is the “Safety and Seismic Safety Element”) has been re-typed for this document, as the quality of the available copy is poor. The best available copy of the actual signed resolution itself is included for reference. A copy of the resolution in its best available form (including Exhibit “B”) is available from the Lassen County Planning and Building Services Department.

SECTION ONE

Introduction:

The Safety Element of the Lassen County General Plan was originally adopted in 1974 through Resolution No. 2552, as Exhibit “B.” The title of Exhibit “B” is the “Safety and Seismic Safety Element.” Other than the amendment described in this Section, incorporating the most current Hazard Mitigation Plan by reference, and providing the current structure for the element, there have been no changes since the original adoption in 1974. Resolution No. 2552 is included in Section Two (page 6). Exhibit “B” has been retyped and re-numbered, as the quality of the 1974 document is poor.

Hazard Mitigation Plan Incorporation:

Section 322 of the Federal Disaster Mitigation Act of 2000 (DMA) specifically addresses mitigation planning at the state and local levels. The DMA identifies new requirements that allow Hazard Mitigation Grant Program (HMGP) funds to be used for planning activities, and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. On December 7, 2018, the County of Lassen Board of Supervisors adopted a Multi-Jurisdictional, Multi-Hazard Mitigation Plan (HMP), with the City of Susanville and the Susanville Indian Rancheria. The Federal Emergency Management Agency (FEMA) approved this plan on January 15, 2019. The HMP was prepared with input and assistance from County, City and Rancheria residents, responsible officials, consultants, and the California Governor’s Office of Emergency Services (Cal OES).

The County of Lassen recognizes the consequences of disasters and the need to reduce the impacts of hazards. The emphasis of the HMP is on the assessment and avoidance of identified risks, implementing loss reduction measures for existing exposures, and ensuring critical services and facilities survive a disaster. Hazard mitigation strategies and measures avoid losses by limiting new exposures in identified hazard areas, altering the hazard by eliminating or reducing the frequency of occurrence, and averting the hazard by redirecting the impact by means of a structure or adapt to the hazard by modifying structures or standards. The current HMP, which was adopted by the County of Lassen Board of Supervisors on December 7, 2018, and approved by FEMA on January 15, 2019, is hereby incorporated by reference into the Safety Element of the Lassen County General Plan, and is given retroactive effect to December 7, 2018. Any future update or amendment of the Hazard Mitigation Plan is incorporated by reference and is a part of this Safety Element.

Future Amendment:

The only update of the Lassen County Safety Element since its original adoption on September 3, 1974, is the incorporation of the current Hazard Mitigation Plan into the Safety Element, as described in this Section. The 1974 “Safety and Seismic Safety Element” will remain in effect until updated as described below (the 1974 “Safety and Seismic Safety Element” is provided in Section Two).

The Board fully acknowledges through Resolution Number 20-028 (which is the resolution adopting this document) that the element is currently not in compliance with all of the

requirements described in section 65302 of the Government Code. It was recommended, and the Board of Supervisors fully concurs, through adoption of the above referenced resolution, that the Safety Element must be updated as soon as possible to come into full compliance with the above Government Code section and any other pertinent requirements. As such, Lassen County has already taken steps to achieve the goal to update the element and it is anticipated that the required process and the adoption of a fully compliant Safety Element will be concluded during the 2020/2021 Fiscal Year.

It has been recommended that the Safety Element be updated to incorporate the current Hazard Mitigation Plan as soon as possible (without waiting for the planned full update of the Safety Element to be completed) in order to maintain the ability to secure Federal Emergency Management Agency funding in the event of a disaster. The Board of Supervisors concurs and the HMP is hereby incorporated into this Safety Element.

SECTION TWO

The best available executed copy of Resolution 2552, which adopted the 1974 “Safety and Seismic Safety Element,” is included in this Section (following page) for reference. The “Safety and Seismic Safety Element” (Exhibit “B” of said resolution) is also included in this Section. However, said Exhibit has been re-typed for this document since the available copy is very poor. The Noise Element, referred to as Exhibit A of the above referenced resolution has been updated as a separate document and is not provided.

Board of Supervisors Resolution Number 2552, adopted September 3, 1974:

RESOLUTION NO. 2552

RESOLUTION ADOPTING NOISE, SAFETY AND SEISMIC SAFETY ELEMENTS AS PART OF ITS GENERAL PLAN

BE IT RESOLVED by the Board of Supervisors of the County of Lassen as follows:

WHEREAS, Government Code Section 65302(g) requires that County general plans include a Noise Element, in qualitative numerical terms, showing contours of present and projected noise levels associated with all existing and proposed major transportation elements; and

WHEREAS, Government Code Section 65302(f) requires that the County General Plan include a Seismic Safety Element; and

WHEREAS, Government Code Section 65302.1 requires a Safety Element to such general plan for the protection of the community against fires and geologic hazards; and

WHEREAS, the Lassen County Planning Commission after holding two public hearings on July 3, and August 7, 1974, in accordance with the Planning and Zoning Laws of the State of California, unanimously adopted a Noise Element and a Safety and Seismic Safety Element and recommended their adoption by the Board of Supervisors; and

WHEREAS, the Board of Supervisors, after consideration and careful study, held a public hearing there upon September 3, 1974, in accordance with the Planning and Zoning Laws of the State of California; and

WHEREAS, the Board of Supervisors find that said Noise, Safety and Seismic Safety Elements consist of suitable, logical and timely plans for the future development of the County of Lassen, and are in the best interests of said County and its citizens.

NOW, THEREFORE, BE IT RESOLVED that the Noise Element and the Safety and Seismic Safety Elements annexed hereto as Exhibits "A" and "B" respectively are hereby adopted as the Noise, Safety and Seismic Safety Elements of the General Plan for the County of Lassen in accordance with Article 6 of Chapter 3 of the Planning and Zoning Law.

The foregoing resolution was passed and adopted at a regular meeting of the Board of Supervisors of the County of Lassen, State of California, held on the 3rd day of September, 1974, by the following vote:

AYES: Supervisors Couse, Farris, Theodore, Packwood

NOES: _____

ABSENT: Supervisor Bingham

ATTEST:

Jacquelyn Fountain
Jacquelyn Fountain, Clerk

George A. Packwood
Chairman of the Board of Supervisors,
County of Lassen, State of California

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“Safety and Seismic Safety Element” (Exhibit “B” of Resolution 2552), adopted September 3, 1974:

EXHIBIT “B”

GENERAL PLAN ELEMENTS – SAFETY AND SEISMIC SAFETY

I. INTRODUCTION

A. Authority

State law requires that General Plans include both Safety and Seismic Safety Elements which are described in the law as follows:

1. Seismic Safety Element (Government Code Section 65302(f))

“A Seismic Safety Element consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to the effects of seismically induced waves such as tsunamis and seiches.”

“The Seismic Safety Element shall also include an appraisal of mudslides, landslides, and slope stability as necessary geologic hazards that must be considered simultaneously with other hazards such as possible surface ruptures from faulting, ground shaking, ground failure and seismically induced waves.”

2. Safety Element (Government Code Section 65302.1)

“A Safety Element for the protection of the community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road widths, clearances around structures, and geologic hazard mapping in areas of known geologic hazard.”

B. Combination of Elements

Because of the similarity, and partial duplication of the purposes and field of coverage as set forth in the codes, the Safety and Seismic Safety Elements are treated together.

The Safety Element is expanded to include or recognize general disaster plans as appropriate.

C. Relation of Elements to Planning Area

Both elements relate to natural physical hazards and to the careless or accidental hazards introduced by man. Population and physical improvements in Lassen County are concentrated in small unincorporated towns and scattered suburban, ranch and recreational areas. Extensive public ownership under the United States Forest Service,

Bureau of Land Management and other large land ownerships are substantially unpopulated and undeveloped.

Because of the broad extent and range of natural topography, a broad range of natural hazards exists. Man induced hazards, except for fires are minor to moderate in nature in Lassen County due to the sparse disbursement of population and settlement.

II. SCOPE AND NATURE OF THE ELEMENTS

A. Objective

The objective of the preparation and adoption of the Safety and Seismic Safety Elements is to add safety considerations to the active planning process in order to reduce loss of life, injuries, damage to property, socio-economic dislocation from fire, seismic hazards, and other possible disasters.

B. Plan Policy Statements

1. Recognition of Hazards

It is recognized that safety hazards exist within Lassen County, and that such hazards vary greatly with respect to particular geographical locations.

Hazards given consideration and recognized as requiring attention include:

- (a) Seismic (earth shaking, surface rupture and seiches).
- (b) Unstable slopes and soil, mudslides, landslides, subsidence.
- (c) Volcanism, molten material from inner core.
- (d) Wildfires, range fires, urban fires, explosions, etc.
- (e) Floods and overflow inundation.
- (f) Indirect hazards or losses resulting from erosion, failure to protect natural resources.

III. SEISMIC SAFETY

A. Seismic Hazards

1. Earthshaking

The most destructive seismic hazard is that of earthshaking. Earthshaking is most intense at the epicenter and severity reduces as distance increases. Also earth shaking takes place over a wider area than any other seismic hazard. Damage occurs when buildings affected are unable to withstand increased acceleration and are literally shaken to pieces. Liquefaction is another result of earthshaking, wherein previously solid ground turns into something akin to quicksand losing its ability to support even the lightest of structures.

2. Fault Line Displacement

The earth relieves internal pressure by finding weak spots on the crust, consequently, movement occurs along these weak points as visible evidence of such pressure relief. Fault line displacement occupies minimal land area, however, if improvements are located on the fault itself major destruction can occur. Most displacement usually amounts to only a few inches, however, displacement of up to 18 feet have been recorded. Damage usually takes place on transportation routes and underground utilities.

3. Land Sliding

A common accompaniment of seismic activity is that of land sliding. Local conditions such as slope, soil, composition and degree of saturation will usually determine the area, and amount of sliding. Landslides often take place on their own volition but seismic activity acts as a major agitator.

4. Volcanism

Discharge of molten material from the earth's inner core is a relatively infrequent occurrence. However, volcanism is being discussed in this element because of the recent (1915) activity of Mt. Lassen and the volcanic flow geomorphology over much of Lassen County. Volcanic eruptions or flows lead to total destruction of all that comes in their path. Loss of property and sterilization of the lands would be anticipated in such an event.

5. Seiche

A seiche is a seismically induced wave on a lake or reservoir, which can inundate development along a shoreline.

B. History of earthquakes Affecting Lassen County

<u>DATE</u>	<u>INTENSITY*</u>	<u>LOCATION</u>
January 30, 1885	VII	Near Janesville and on Susan River, 12 miles from Susanville where chimneys fell.
April 28, 1885	VII	Nevada City, felt from San Francisco north eastward into Nevada.
June 19, 1889 1915	VII	Lassen County, was felt to Chico and Sacramento and into Nevada.
March 20, 1950	V	Lassen Peak intensity V at 8 places also felt at Reno, magnitude 5.5.

May 9, 1952	VI	California-Nevada border, over an area of 3,000 square miles of northern California to western Nevada, magnitude 5.4.
September 25, 1953	VI	Nevada-California border over an area of 12,000 square miles of western Nevada and northeastern California.
February 21, 1915	VII	Near Lassen Peak, localized shock in mountains near Whitmore, northwest of Lassen Peak. Considerable dislocation of Ground.
December 26, 1969		California-Nevada, three shocks at Marysville, felt at Stockton, Sacramento, Grass Valley, Mokelumne Hill and Chico in California and Virginia City in Nevada.
December 27, 1969	V-VII	California-Nevada, considerable damage at Virginia City, Genoa, Carson City in Nevada and at Downieville and Oroville in California.

*Intensity is based upon the Modified Mercalli intensity Scale of 1931.

The listing of the major earthquakes affecting Lassen County, emphasize that during the past hundred years the planning area has been subjected to minor quakes and secondary impact, which did and could today cause damage and injuries with a breakdown of vital facilities and services.

The California Division of Mines and Geology Epicenter Map of 1972 indicates Lassen County earthquakes occurring between 1934 and June 1971 of from magnitude 4.0 to 5.9 as follows:

- (1) One earthquake near Susanville of magnitude 4.0 to 4.9.
- (2) Two earthquakes in Honey Lake area of magnitude 5.0 to 5.9.
- (3) Three separate locations between Doyle and Herlong of magnitude 5.0 to 5.9.

The basic assumption underlying the above list, is that where earthquakes have occurred, they are more likely to occur in the future. Most earth scientists agree with this assumption in its most general terms, but there is no agreed way to predict when, where or how powerful the next earthquake will be.

C. Designated Hazard Areas

1. California Division of Mines and Geology Fault Map 72-1 indicates Lassen County hazard areas as follows:
 - (a) Between Doyle and Herlong, along the west edge of Fort Sage Mountains, historically active fault with surface rupture with documented reports dated 1950.
 - (b) Quaternary displacement in western and central Lassen County, without historic record. Recognized by displaced alluvium, terraces, or other quaternary units; offset streams; alignment of sag ponds, trenches or saddles. Includes concealed fault-controlled ground water well data.
 - (c) There are lesser scattered faults throughout the county, without recognized quaternary movement.

2. Weather and Landslides

In terms of energy, frequency of activity, and area of influence, weather is a principal consideration in landslides. Cloud cover, temperature, humidity and fog, among others, regulate the plant cover, and influence ground moisture. However, the principal expression of weather is precipitation and it has a direct influence on land sliding. Precipitation can be related-to landslide activity and greater rainfall proportionally increases landslide activity.

3. Volcanic Action

Lassen Peak, still considered an active volcano, is situated just west of Lassen County and is the southernmost volcano of the Cascade chain. Cinder cones run the length of Lassen County's western boundary. Lassen Peak has recorded the most violent volcanic action on the mainland. Some volcanologists consider Lassen to be a volcanic "time bomb" that could erupt at any time. They point out Arenal Volcano, Costa Rica erupted in 1969 after being dormant for more than 500 years.

4. Lakes and Reservoirs

The number of lakes in Lassen County is high and therefore correlation of known faults and their relationships to lakes and reservoirs should be noted. The potential for a seiche occurring on Eagle Lake is a definite possibility, which depending upon the intensity of seismic event could result in damage of varying severity at vulnerable locations.

The calculation of the effect of seiche on specific bodies of water is very technical and should be analyzed.

IV. PUBLIC SAFETY ELEMENT

A. Fire, Geologic, and Health Hazards

1. Fire Hazard

The entire county is prone to fire, either man-made or natural. Location, accessibility, local climatic conditions, topography and vegetation type are among the factors associated with the intensity of a fire. Among the factors which can induce fire hazard potential to human safety and the environment is the degree to which fire hazard reduction measures are practiced in an area and, should a fire occur, the response time and effectiveness of the fire suppression activities.

Considerable loss to the economy, environment, and public safety may result in an area where a fire occurs. The losses resulting from natural or man-made fire can be minimized considerably if fire hazard reduction measures of maintaining clearance around structures are practiced as spelled out in the Public Resource Code 4291.

Developments in fire hazard areas should take all necessary precautions in preventing fire and reducing fire hazards. Establishing fuel brakes by thinning the more highly combustible vegetation in such areas of high vulnerability as along roadsides, recreation and residential areas should be practiced.

Adequate multiple ingress and egress options for evacuation and fire suppression access routes should be provided in all areas used by the public. The General Plan and the county land division ordinance regulations provide an excellent framework for new development access, however, all access routes in the county should be maintained and improved periodically in the event an emergency warrants their use for public evacuation and/or fire suppression activities response.

The vulnerability of populated areas to fire is obvious, consequently, water availability is important. The small communities in Lassen County do not have central water systems, however, most communities do have prime sources of supply. In 1974, out of sixteen populated centers, thirteen have prime sources for water supply; six have storage that could meet fire standards; seven have water systems, one being of half inch lines, and one has no storage; ten have organized fire protection, of these, six do not have water systems or storage.

All of the populated areas of Lassen County are in high fire hazard areas of either/or timber, brush, and/or grasslands, and all of these areas are especially vulnerable during peak dry seasons.

2. Geologic Hazard

Maps depicting real and potential existing geologic hazards should be prepared by an agency having special expertise or jurisdiction showing the location of fault zones, unstable soils, flood zones, and other geologic related conditions which could potentially cause public danger and/or possible environmental damage and recommend mitigation measures in these areas of concern as described in the General Plan Elements.

3. Health Hazards

Certain areas of the county are subject to existing or potential dangers to public health through water quality problems which usually result from the use of individual waste disposal and leaching systems that are affected by one or more unfavorable physical factors. These factors may include such things as: density of development; high groundwater; nearby surface water of high quality; unsuitable local topography; poor soil conditions as in areas of Eocene Nonmarine soils and granitic areas where there is insufficient soil over bedrock; and important recharge areas for groundwater in which leachates put into the soil receive almost no filtering action and become a part of the groundwater and also, obviously, a part of the public health problem. Potential risks are assumed in these problem areas. As these polluted conditions go unchecked, obvious hazards to public health become eminent unless remedial action is taken. Lassen County should adopt guidelines for waste disposal from land development.

V. POLICY PROGRAMS

A. Implementation Measures

1. Implement a study to locate and identify areas of existing and potential fire, geologic, and health hazards.
2. Require all structures and developments to strictly adhere to Public Resource Code 4291.
3. Subdivision and minor land division ordinances should require that roads constructed be of sufficient width and that there be multiple ingress and egress options for evacuation routes.
4. Population centers should be encouraged to improve or install water systems with adequate storage capacities.
5. Communities should be protected by fuel brakes together with fire suppression equipment backed up with an adequate water supply.
6. For the purpose of faster response time of fire suppression equipment, all major and minor roads should have signs identifying their names.
7. Require that all public and private structures strictly adhere to the Uniform Building Code regarding earthquake safe standards for Seismic Zone 2.
8. Implement a study to identify, map, and calculate the potential of occurrence and effects that a seiche would have on shoreline development along with possible mitigation recommendations.
9. Adoption of an ordinance for hillside developments.
10. Adoption of guidelines for waste disposal from land development and that the guidelines set by Lahontan Regional Water Quality Control and Central Valley Regional Water Quality Control Boards are strictly adhered to.

Safety Element

Introduction

The goal of the safety element is to reduce the potential short and long-term risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues, such as airport land use, emergency response, hazardous materials spills, and crime reduction, may also be included. Some local jurisdictions have chosen to incorporate their hazardous waste management plans into their safety elements.

The safety element directly relates to topics also mandated in the (1) land use, (2) conservation, (3) environmental justice and (4) open-space elements, as development plans must adequately account for public safety considerations and open space for public health and ecological benefits often incorporate areas of increased hazard risk. The safety element must identify hazards and hazard abatement provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The safety element should also contain general hazard and risk reduction strategies complementary with those of the [Local Hazard Mitigation Plan \(LHMP\)](#). Ideally, the LHMP will be incorporated into the safety element as outlined below in accordance with provision of [Assembly Bill 2140, General Plans: Safety Element \(Hancock, 2006\)\(Gov. Code § 65302.6\)](#).

The recent introduction of climate risk to the discussion of the safety element, adds a focus on longer term preparation of a community for a changing climate. Policies in a safety element should identify hazards and emergency response priorities, as well as mitigation through avoidance of hazards by new projects and reduction of risk in developed areas. As California confronts mounting [climate change](#) impacts, local governments are now required, in accordance with [Senate Bill 379, Land Use: General Plan: Safety Element \(Jackson, 2015\)](#) to include a climate change vulnerability assessment, measures to address vulnerabilities, and comprehensive hazard mitigation and emergency response strategy as explained further in this section

Government Code 65302(g):

- (g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(Gov. Code § 65302(g)(4)). Policies may include methods of minimizing risks, as well as ways to minimize economic disruption and expedite recovery following disasters. Since virtually all incidents disproportionately affect individuals with access and functional needs (AFN) (i.e. people with disabilities, seniors, children, limited English proficiency, and transportation disadvantaged). All policies should include consideration of AFN [populations](#).

Climate change will affect and potentially exacerbate the impact of other hazards rather than being solely a distinct hazard with unique impacts. For example, extreme heat and heat waves are existing hazards that will be exacerbated by climate change. The impacts of climate change on the frequency, timing, and magnitude of flooding vary by geography throughout the state. Areas that experience early run off from snow melt coupled with intensified rain or coastal areas experiencing sea level rise may be more greatly impacted by flooding. Hazards that have the potential to be affected by climate change are further outlined in this element and linked resources described below.

Assembly Bill 2140

The federal [Disaster Mitigation Act of 2000 \(42 U.S.C. § 5121 et seq.\)](#), outlines how a Local Hazard Mitigation Plan (LHMP) can be developed individually or through a multi-jurisdictional LHMP. The successful completion of an LHMP makes the jurisdiction eligible to apply for federal Hazard Mitigation Grant Program (HMGP) post-disaster funding, Pre-Disaster Mitigation (PDM) funding or Flood Management Assistance (FMA) funding. See reference in the [44 CFR, Section 201.6\(a\) and 201.6\(a\)\(2\)](#)

At the state level, [AB 2140](#) authorizes local governments to adopt their LHMPs with the safety elements of their general plans ([Gov. Code § 65302.6](#)). Integration or incorporation by reference is encouraged through a post-disaster financial incentive that authorizes the state to use available California Disaster Assistance Act funds to cover local shares of the 25% non-federal portion of grant-funded post-disaster projects when approved by the legislature ([Gov. Code § 8685.9](#)).

[AB 2140](#) is one of the most important links between general plans and hazard mitigation in California. Adopting the LHMP with the safety element provides a vehicle for implementation of the LHMP. This integration allows hazard mitigation strategies to be

Climate Change

An increasingly important factor affecting disaster management functions is climate change. Climate change reflects new uncertainties and factors shaping and conditioning hazard mitigation planning. [Chapter 4.5 in the 2013 California State Hazard Mitigation Plan \(SHMP\)](#) addresses a specific approach for local communities to evaluate their risk as a result of climate change. The safety element of the general plan plays an important role in ensuring consistency with the [Local Hazard Mitigation Plan \(LHMP\)](#) and the SHMP. The general plan and LHMP both provide a local vehicle for implementation of the SHMP, including the provisions dealing with climate change. The SHMP outlines tools, resources, and a process for addressing climate change at the local level. The resources the SHMP and LHMP guidance materials reference are the same materials referenced in [Chapter 8 of the General Plan Guidelines](#), Climate Change. This provides for consistency across multiple documents such as an adaptation plan, climate action plan, general plan, implementation plan, local hazard mitigation plan, etc.

implemented and local hazard awareness to be upgraded and enhanced. An LHMP must document what existing plans, studies, reports, and technical information were reviewed during the formation of the plan, as well as if and how any of that information was incorporated into the final product (44 CFR, Section 201.6(b)(3)).

Completeness Checklist

Local agency staff can use the following checklist to help ensure that the safety element addresses all required issues. Please note that use of this checklist is purely advisory, and only contains issues that are legally required by [Government Code section 65302\(g\)](#). Safety elements may address additional issues at the discretion of the local government. Because general plan formats may vary, this checklist suggests identifying where the particular government code provision is satisfied.

Statutory Citation	Brief Description of Requirement
Gov. Code § 65302(g)(1)	Identification of unreasonable risks and policies for the protection of the community from such risks.
Gov. Code § 65302(g)(1)	Slope Instability Slope instability leading to mudslides and landslides.
Gov. Code § 65302(g)(1)	Seismic risks, including: Seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body <ul style="list-style-type: none"> • Mapping of known seismic and other geologic hazards. • Address <ul style="list-style-type: none"> o Evacuation routes o Military installations o Peakload water supply requirements, and o Minimum road widths and clearances around structures
Gov. Code § 65302(g)(2)	Flooding Identify <ul style="list-style-type: none"> • Flood Hazard Zones • FEMA Flood Insurance Maps • Army Corps of Engineer Flood information • Flood maps from the Central Valley Flood Protection Board • Dam Failure Maps (Office of Emergency Services) • DWR Floodplain Maps • Maps of Levee Protection Zones • Areas subject to inundation in the event of the failure of levees and floodwalls • Historic flood information • Existing and planned development in flood hazard areas • Agencies with responsibility for flood protection Mandatory Goals, Policies, and Objectives <ul style="list-style-type: none"> • Avoid and minimize flood risks for new development. • Should new development be located in flood hazard zones? If so, what are appropriate mitigation measures? • Maintain the integrity of essential public facilities. • Locate, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities, or identifying mitigation measures. • Establishing cooperative working relationships among public agencies with responsibility for flood protection. Feasible Mitigation Measures, to implement the policies above.

Statutory Citation	Brief Description of Requirement
Gov. Code § 65302(g)(3)	<p>Wildland and Urban Fires</p> <p>Identification of, and policies for, the protection of the community from, any unreasonable risks associated with wildland and urban fires.</p> <p>State Responsibility Areas and Very High Fire Hazard Severity Zones</p> <p>Consider advice in OPR's Fire Hazard Technical Advisory</p> <p>Identify</p> <ul style="list-style-type: none"> • CALFire Fire Hazard Severity Zone Maps • Historical data on wildfires • USGS wildfire hazard areas • Existing and planned development within these areas • Agencies with responsibility for fire protection in these areas <p>Mandatory Goals, Policies and Objectives</p> <ul style="list-style-type: none"> • Protect the community from unreasonable risks • See mitigation measures below. <p>Feasible Mitigation</p> <ul style="list-style-type: none"> • Avoid and minimize fire risks for new development. • Should new development be located in fire hazard zones? If so, what are appropriate mitigation measures? • Maintain the integrity of essential public facilities. • Locate, when feasible, new essential public facilities outside of fire hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities, • If essential facilities are located in high fire zones, identify mitigation measures, such as safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression. • Establishing cooperative working relationships among public agencies with responsibility for fire protection.
Gov. Code § 65302(g)(4)	<p>Climate Change Adaptation and Resilience</p> <p>Address climate change adaptation and resiliency strategies by using the process in the Adaptation Planning Guide and reflected in referenced tools such as Cal-Adapt.</p> <p>Vulnerability Assessment (Gov. Code § 65302(g)(4)(A))</p> <p>Create a vulnerability assessment that identifies the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts, the following:</p> <ul style="list-style-type: none"> • Information that may be available from federal, state, regional, and local agencies that will assist in developing the vulnerability assessment and the adaptation policies and strategies, including, but not limited to, all of the following: <ul style="list-style-type: none"> (I) Information from the Internet based Cal-Adapt tool. (II) Information from the most recent version of the California Adaptation Planning Guide. (III) Information from local agencies on the types of assets, resources, and populations that will be sensitive to various climate change exposures. (IV) Information from local agencies on their current ability to deal with the impacts of climate change. (V) Historical data on natural events and hazards, including locally prepared maps of areas subject to previous risk, areas that are vulnerable, and sites that have been repeatedly damaged. (VI) Existing and planned development in identified at-risk areas, including structures, roads, utilities, and essential public facilities. (VII) Federal, state, regional, and local agencies with responsibility for the protection of public health and safety and the environment, including special districts and local offices of emergency services. <p>Mandatory Goals, Policies and Objectives (Gov. Code § 65302(g)(4)(B))</p> <ul style="list-style-type: none"> • Create a set of adaptation and resilience goals, policies, and objectives based on the information above for the protection of the community.

Statutory Citation	Brief Description of Requirement
Gov. Code § 65302(g)(4) CONTINUED	<p>Feasible Mitigation (Gov. Code § 65302(g)(4)(C))</p> <ul style="list-style-type: none"> • Create a set of feasible implementation measures designed to carry out the goals, policies, and objectives identified above, including, but not limited to, all of the following: <ul style="list-style-type: none"> (i) Feasible methods to avoid or minimize climate change impacts associated with new uses of land. (ii) The location, when feasible, of new essential public facilities outside of at-risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in at-risk areas. (iii) The designation of adequate and feasible infrastructure located in an at-risk area. (iv) Guidelines for working cooperatively with relevant local, regional, state, and federal agencies. (v) The identification of natural infrastructure that may be used in adaptation projects, where feasible. Where feasible, the plan shall use existing natural features and ecosystem processes, or the restoration of natural features and ecosystem processes, when developing alternatives for consideration. For the purposes of this clause, "natural infrastructure" means the preservation or restoration of ecological systems, or utilization of engineered systems that use ecological processes, to increase resiliency to climate change, manage other environmental hazards, or both. This may include, but is not limited to, floodplain and wetlands restoration or preservation, combining levees with restored natural systems to reduce flood risk, and urban tree planting to mitigate high heat days. <p>Other documents (Gov. Code §§ 65302(g)(4)(D)(i), 65302(g)(4)(D)(ii):</p> <ul style="list-style-type: none"> • If a city or county has adopted the local hazard mitigation plan, or other climate adaptation plan or document that fulfills commensurate goals and objectives and contains the information required pursuant to this paragraph, separate from the general plan, an attachment of, or reference to, the local hazard mitigation plan or other climate adaptation plan or document. • Cities or counties that have an adopted hazard mitigation plan, or other climate adaptation plan or document that substantially complies with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions, climate adaptation plan or document, specifically showing how each requirement of this subdivision has been met.
Gov. Code 65302(g)(5) – (g)(8)	<p>Other Considerations:</p> <ul style="list-style-type: none"> • Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met. • Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the agency, and the board required by this subdivision. • To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision • Review the safety element for fire and flood impacts upon each Housing Element update, • Review the safety element for climate change at each update to the Local Hazard Mitigation Plan, Jurisdiction may also choose to do a comprehensive review of the safety element upon each housing element update to streamline review.

CORRELATIONS AMONG ELEMENTS

	Land Use	Circulation	Housing	Conservation	Open Space	Noise	Air Quality	EJ
Safety	IN STATUTE	RELATED	RELATED	IN STATUTE	RELATED	-	RELATED	RELATED

■ Identified in statute ■ Closely related to statutory requirements

Required Contents

The safety element must, consistent with [Government Code Section 65302\(g\)](#), provide for the protection of the community from any unreasonable risks associated with the effects of:

- Seismically induced surface rupture, ground shaking, ground failure
- Tsunami, seiche, and dam failure
- Slope instability leading to mudslides and landslides
- Subsidence
- Liquefaction
- Other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body
- Flooding
- Wildland and urban fires
- Climate change

The safety element must include mapping of known seismic and other geologic hazards. It must also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

The safety element must also identify information regarding flood hazards, establish a set of comprehensive goals, policies, and objectives for the protection of the community from the unreasonable risks of flooding, and establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives for flood protection. It is recommended that the safety element do the same for drought impacts.

The safety element must also be reviewed and updated as necessary to address the risk of fire for land classified as

Changes in planning and design can increase community safety and resilience

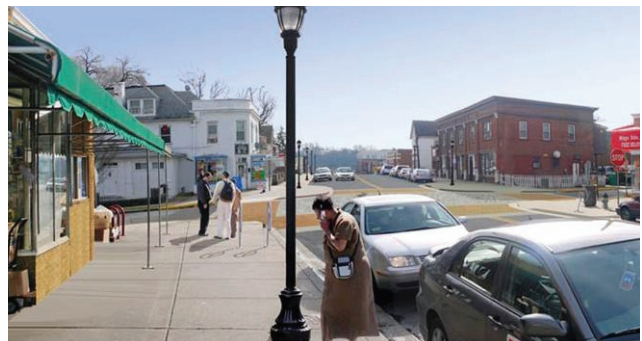


Image by Urban Advantage, Cunningham Quill | Architects

state responsibility areas and land classified as very high fire hazard severity zones. Because climate change will likely increase California's frequency and intensity of fire weather conditions, even historically less vulnerable regions should reevaluate wildfire risk and prevention strategies in their general plan's safety element.

Most of the information needed to complete the analysis for the safety element, can be obtained through a combination of sources: the [State Hazard Mitigation Plan](#) and federal requirements outlined in the Disaster Mitigation Act (DMA) of 2000, [MyPlan](#) tool, the [General Plan Mapping Tool](#), [Cal-Adapt](#) and the [Adaptation Planning Guide \(APG\)](#). Some information may need to be generated at the local or regional level, particularly for those facilities considered critical to the community.

Consultation Requirements

Before the periodic review of its general plan and before preparing or revising its safety element, each city and county shall consult the [California Geological Survey of the Department of Conservation](#), the [Central Valley Flood Protection Board](#), if the city or county is located within the boundaries of the [Sacramento and San Joaquin Drainage District](#), as set forth in [Section 8501 of the Water Code](#), and the [Office of Emergency Services](#) for the purpose of including information known by and available to the department, the agency, and the board required by this subdivision. In particular, the Office of Emergency Services can assist local governments with developing their safety element and aligning general plan strategies with those of the local hazard mitigation and emergency operation plans to ensure consistency. The Governor's Office of Planning and Research's Integrated Climate Adaptation and Resiliency Program (ICARP), established by [SB 246 \(Wieckowski, 2015\)](#), also supports local government's compliance with [SB 379 \(Pub. Resources Code § 71350 et seq.\)](#).

Each city and county must provide a draft of its safety element or amendment of its safety element to the California Geological Survey of the Department of Conservation prior to adoption, for review to determine if all known seismic and other geologic hazards are addressed ([Gov. Code § 65302.5\(a\)](#)). A city or county that contains a state fire responsibility area or a very high fire hazard severity zone must provide a draft of its safety element or amendment of its safety element to the State Board of Forestry and Fire Protection for review before adoption, and the Board may recommend changes regarding uses of land, policies, or strategies for reducing fire risk (Id. at [§ 65302.5\(b\)](#)). Similarly, each city and county located in the Sacramento and San Joaquin Drainage District must provide a draft of its safety element or amendment of its safety element to the Central Valley Flood Protection Board before adoption, and the Board may provide recommended changes regarding uses of land, policies, or strategies for reducing flood risk and protecting areas subject to flooding (Id. at [§ 65302.7](#)).

Statutory Requirements

This section offers a general guide to the contents of the safety element. Note that while the focus is on the minimum requirements for an adequate safety element, an effective general plan will focus more extensively on those issues of greatest relevance to the community. The effects of climate change in particular will influence emergency management issues through varying impacts across local communities statewide. Increases in average temperature, a greater incidence of extreme weather conditions, and sea level rise all will not only exacerbate existing hazards mentioned in this section, but may also create new hazards where none previously existed.

Useful Definitions

Alquist-Priolo Earthquake Fault Zone: A regulatory zone, delineated by the State Geologist, within which site-specific geologic studies are required to identify and avoid fault rupture hazards prior to subdivision of land and/or construction of most structures for human occupancy.

Climate Adaptation: Adjustment or preparation of natural or human systems to a new or changing environment that moderates harm or exploits beneficial opportunities.

Climate Mitigation (Greenhouse Gas Emissions Reductions): A human intervention to reduce the human impact on the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks. Refer to Chapter 7, Climate Change, for more information.

Critical Facility: Facilities that either (1) provide emergency services or (2) house or serve many people who would be injured or killed in case of disaster damage to the facility. Examples include hospitals, fire stations, police and emergency services facilities, utility facilities, and communications facilities.

Extreme Weather Event: In most cases, extreme weather events are defined as lying in the outermost (“most unusual”) ten percent of a place’s history. Analyses are available at the national and regional levels.

Fault: A fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side. A fault zone is a zone of related faults which commonly are braided, but which may be branching. A fault trace is the line formed by the intersection of a fault and the earth’s surface.

Active Fault: A fault that has exhibited surface displacement within Holocene time (approximately the past 11,000 years).

Potentially Active Fault: A fault that shows evidence of surface displacement during Quaternary time (the last 2 million years).

Flooding: A rise in the level of a water body or the rapid accumulation of runoff, including related mudslides and land subsidence, that results in the temporary inundation of land that is usually dry. Riverine flooding, coastal flooding, mud flows, lake flooding, alluvial fan flooding, flash flooding, levee failures, tsunamis, and fluvial stream flooding are among the many forms that flooding takes.

Ground Failure: Mudslide, landslide, liquefaction or soil compaction.

Hazardous Building: A building that may be hazardous to life in the event of an earthquake because of partial or complete collapse. Hazardous buildings may include:

- (1) Those constructed prior to the adoption and enforcement of local codes requiring earthquake resistant building design.
- (2) Those constructed of unreinforced masonry.
- (3) Those which exhibit any of the following characteristics:

- exterior parapets or ornamentation which may fall on passersby
- exterior walls that are not anchored to the floors, roof, or foundation
- sheeting on roofs or floors incapable of withstanding lateral loads
- large openings in walls that may cause damage from torsional forces
- lack of an effective system to resist lateral forces
- non-ductile concrete frame construction

Hazardous Material: An injurious substance, including pesticides, herbicides, toxic metals and chemicals, liquefied natural gas, explosives, volatile chemicals, and nuclear fuels.

Hazard Mitigation: Sustained action taken to reduce or eliminate long-term risk to people and their property from hazards and their effects.

Landslide: A general term for a falling, sliding, or flowing mass of soil, rocks, water, and debris. Includes mudslides, debris flows, and debris torrents.

Liquefaction: A process by which water-saturated granular soils transform from a solid to a liquid state during strong ground shaking.

Maladaptation: Any changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli; an adaptation that does not succeed in reducing vulnerability but increases it instead.

Natural Infrastructure: The preservation or restoration of ecological systems, or utilization of engineered systems that use ecological processes, to increase resiliency to climate change, manage other environmental hazards, or both. This may include, but is not limited to, floodplain and wetlands restoration or preservation, combining levees with restored natural systems to reduce flood risk, and urban tree planting to mitigate high heat days.

Peakload Water Supply: The supply of water available to meet both domestic water and fire fighting needs during the particular season and time of day when domestic water demand on a water system is at its peak.

Resilience: The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change.

Seiche: An earthquake-induced wave in a lake, reservoir, or harbor.

Seismic Hazard Zone: A regulatory zone, delineated by the State Geologist, within which site-specific geologic, soils, and foundation engineering studies are required to identify and avoid earthquake-caused ground-failure hazards, or selected other earthquake hazards, prior to subdivision of land and for construction of most structures for human occupancy.

Storm surge: An abnormal rise of water generated by a storm, over and above the predicted astronomical tides.

Subsidence: The gradual, local settling or sinking of the earth's surface with little or no horizontal motion (subsidence is usually the result of gas, oil, or water extraction, hydrocompaction, or peat oxidation, and not the result of a landslide or slope failure).

Seismically Induced Surface Rupture: A break in the ground's surface and associated deformation resulting from the movement of a fault.

Tsunami: A wave, commonly called a tidal wave, caused by an underwater seismic disturbance, such as sudden faulting, landslide, or volcanic activity.

Wildland Fire: A fire occurring in a suburban or rural area that contains uncultivated lands, timber, range, watershed, brush, or grasslands. This includes areas where there is a mingling of developed and undeveloped lands.

Climate Change Adaptation and Resilience

Requirement Description:

In accordance with the requirements of [SB 379](#), codified at [Government Code section 65302\(g\)\(4\)](#), climate change adaptation and resilience must be addressed in the safety element of all general plans in California. Specifically, “upon the next revision of a local hazard mitigation plan, adopted in accordance with the federal [Disaster Mitigation Act of 2000](#) (Public Law 106-390), on or after January 1, 2017, or, if a local jurisdiction has not adopted a LHMP, beginning on or before January 1, 2022, the safety element shall be reviewed and updated as necessary to address climate adaptation and resiliency strategies applicable to the city or county. This review shall consider advice provided in the Office of Planning and Research’s General Plan Guidelines...” ([Gov. Code § 65302\(g\)\(4\)](#)). This section provides advice to support a jurisdiction’s compliance with the requirements of [Government Code section 65302\(g\)\(4\)](#).

Government Code 65302(g):

- (4) Upon the next revision of a local hazard mitigation plan, adopted in accordance with the federal Disaster Mitigation Act of 2000 (Public Law 106-390), on or after January 1, 2017, or, if a local jurisdiction has not adopted a local hazard mitigation plan, beginning on or before January 1, 2022, the safety element shall be reviewed and updated as necessary to address climate adaptation and resiliency strategies applicable to the city or county. This review shall consider advice provided in the Office of Planning and Research’s General Plan Guidelines and shall include all of the following:
 - (A) (i) A vulnerability assessment that identifies the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts, including, but not limited to, an assessment of how climate change may affect the risks addressed pursuant to paragraphs (2) and (3).

- (ii) Information that may be available from federal, state, regional, and local agencies that will assist in developing the vulnerability assessment and the adaptation policies and strategies required pursuant to subparagraph (B), including, but not limited to, all of the following:
 - (I) Information from the Internet based Cal-Adapt tool.
 - (II) Information from the most recent version of the California Adaptation Planning Guide.
 - (III) Information from local agencies on the types of assets, resources, and populations that will be sensitive to various climate change exposures.
 - (IV) Information from local agencies on their current ability to deal with the impacts of climate change.
 - (V) Historical data on natural events and hazards, including locally prepared maps of areas subject to previous risk, areas that are vulnerable, and sites that have been repeatedly damaged.
 - (VI) Existing and planned development in identified at-risk areas, including structures, roads, utilities, and essential public facilities.
 - (VII) Federal, state, regional, and local agencies with responsibility for the protection of public health and safety and the environment, including special districts and local offices of emergency services.
- (B) A set of adaptation and resilience goals, policies, and objectives based on the information specified in subparagraph (A) for the protection of the community.
- (C) A set of feasible implementation measures designed to carry out the goals, policies, and objectives identified pursuant to subparagraph (B) including, but not limited to, all of the following:
 - (i) Feasible methods to avoid or minimize climate change impacts associated with new uses of land.
 - (ii) The location, when feasible, of new essential public facilities outside of at-risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in at-risk areas.
 - (iii) The designation of adequate and feasible infrastructure located in an at-risk area.
 - (iv) Guidelines for working cooperatively with relevant local, regional, state, and federal agencies.
 - (v) The identification of natural infrastructure that may be used in adaptation projects, where feasible. Where feasible, the plan shall use existing natural features and ecosystem processes, or the restoration of natural features and ecosystem processes, when developing alternatives for consideration. For the purposes of this clause, “natural infrastructure” means the preservation or restoration of ecological systems, or utilization of engineered systems that use ecological processes,

to increase resiliency to climate change, manage other environmental hazards, or both. This may include, but is not limited to, floodplain and wetlands restoration or preservation, combining levees with restored natural systems to reduce flood risk, and urban tree planting to mitigate high heat days.

- (D) (i) If a city or county has adopted the local hazard mitigation plan, or other climate adaptation plan or document that fulfills commensurate goals and objectives and contains the information required pursuant to this paragraph, separate from the general plan, an attachment of, or reference to, the local hazard mitigation plan or other climate adaptation plan or document.
- (ii) Cities or counties that have an adopted hazard mitigation plan, or other climate adaptation plan or document that substantially complies with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions, climate adaptation plan or document, specifically showing how each requirement of this subdivision has been met.

The safety element discussion is not the only section of the GPG that should address climate change adaptation and resilience. Nearly every other chapter of the GPG outlines how climate change applies to each respective section. The safety element is the statutory “home” for the discussion; however, it should not preclude discussion of climate adaptation and resilience in other appropriate sections of a jurisdiction’s general plan. Specifically, addressing a changing climate may result in the need to consider the end year of the general plan and the environmental changes that may occur through the life of a general plan’s applicability. As the climate changes, future environmental conditions at the horizon year of the general plan may be just as important for consideration of long range policy as the base environment setting. As climatic systems shift away from a historically predictable paradigm, planning policy should adapt to better incorporate the associated impacts of these anticipated environmental shifts. Further, all major policy documents in a jurisdiction should discuss climate adaptation and resilience, as both an input to and implementation of the jurisdiction’s general plan. This will lead to consistency within a jurisdiction’s policy framework and ensure implementations of policies are occurring in an efficient and appropriate manner. Examples and cases studies of how this incorporation might occur will be hosted on OPR’s Adaptation Clearinghouse.

In some cases, jurisdictions have chosen to address climate change in their community through a climate action plan or adaptation plan. Additional guidance on how a jurisdiction might treat these two types of documents in relationship to the general plan is included in [Chapter 8, Climate Change](#). Many jurisdictions have chosen to address greenhouse gas (GHG) emissions reductions and climate change adaptation together in the same document. The guidance here does not require bifurcating the GHG emissions and adaptation discussions, rather the intent of the policy maker should be to look at the whole of the policy framework to both meet statutory requirements while also maximizing co-benefits of policy initiatives. An outline of a climate action plan that could address both GHG emissions and adaptation is included in [Chapter 8, Climate Change](#) and in [OPR’s Adaptation Clearinghouse](#).

Timing of Updates

For those jurisdictions that have an adopted [local hazard mitigation plan \(LHMP\)](#), the next update of their LHMP triggers an update to the safety element of the general plan to address climate adaptation and resilience. If a jurisdiction does not have an LHMP, the safety element of the general plan must be reviewed and updated on or before January 1, 2022 to address climate adaptation and resilience. Internal consistency and disclosure of impacts to a community may become problematic if the document is not updated regularly. A jurisdiction may choose to review and update the safety element each time the [housing element](#) is updated, as is required for flood and fire hazards. The [housing element's](#) five to eight year update cycle may be adequate to regularly review and update the safety element [climate change](#) discussions. Jurisdictions that have an LHMP may also choose to review and update their climate change analysis in the [LHMP](#) concurrently or as preparation for the next LHMP update to create consistency and efficiency in the review and update cycle for both general plans and LHMPs.

Fulfilling the Objectives of This Section

Some jurisdictions have already completed climate change adaptation analysis. In recognition of this, a city or county may use an existing [LHMP](#) or climate adaptation plan to satisfy the requirements of this section. The key to using these stand-alone documents is to both satisfy the requirements of this chapter and to adequately incorporate contents of the plan into the general plan. Likewise, a city or county may use a general plan that currently includes adaptation to satisfy the requirements of this section. If a separate plan is used, it must be incorporated by reference into the safety element and summarized to specifically show how each requirement of this subdivision has been met.

To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Process for Analysis

The requirements of [SB 379](#) have five distinct steps (outlined below). The first and last steps focus on the relationship of the analysis and policy efforts of the larger general plan. Steps 2, 3, and 4 focus on how to conduct the recommended analysis, goal setting, and policy development. This process can also be found at the OPR Adaptation Clearinghouse. The five steps require that the jurisdiction:

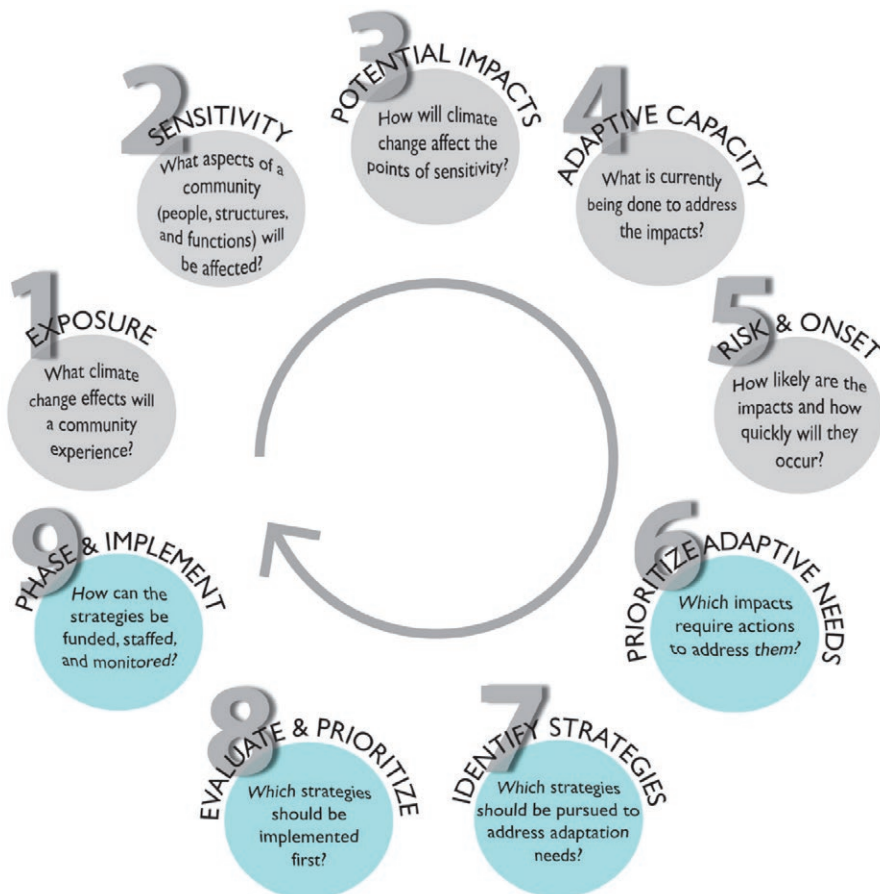
1. Review the existing [LHMP](#), climate action plan (CAP), adaptation plan and other relevant documents to ensure it meets the requirements of [Government Code section 65302\(g\)\(4\)](#) as outlined in this chapter. If the [LHMP](#), or plan to address climate adaptation, does not meet the requirements of this chapter, proceed to Step 2. Proceed to step 5 if these requirements have already been satisfied.

2. Conduct a vulnerability assessment.
3. Develop adaptation goals.
4. Create implementation measures.

Complete [Adaptation Planning Guide \(APG\)](#) Process to satisfy these steps

5. Update the safety element with adaptation and resilience considerations consistent with this chapter. This update can be done through incorporation by reference of a plan that meets the requirements of this chapter, through incorporation in entirety of language that meets the requirements, or other appropriate mechanism. When updating the safety element to address [climate change](#), it is important to review other elements of the general plan to ensure consistency.

Steps 2, 3, and 4 respond to the nine step process outlined in the [Adaptation Planning Guide \(APG\)](#).



Source: Adaptation Planning Guide, 2012

The APG is periodically updated in conjunction with updates of the [Safeguarding California Plan](#) and [State Hazard Mitigation Plan](#). The next APG update will include updates to address the requirements of [Government Code section 65302\(g\)\(4\)](#). You can review further detail for each step in the APG [in the document](#).

1. Exposure: What climate change effects will a community experience?
2. Sensitivity: What aspects of a community (people, structures and functions) will be affected?
3. Potential Impacts: How will climate change affect the points of sensitivity?

4. Adaptive Capacity: What is currently being done to address the impacts?
5. Risks and Onset: How likely are the impacts and how quickly will they occur?
6. Prioritize Adaptive Needs: Which impacts require actions to address them?
7. Identify Strategies: Identify the strategies that should be pursued to address adaptation needs?
8. Evaluate and Prioritize: Which strategies should be implemented first?
9. Phase and Implement: How can the strategies be funded, staffed and monitored?

[Senate Bill 1000](#), adopted in 2016, requires local governments to incorporate [environmental justice](#) (EJ) policies into their general plans, either in a separate EJ element or by integrating related goals, policies, and objectives throughout the other elements. This update, or revision if the local government already has EJ goals, policies, and objectives, must happen “upon the adoption or next revision of two or more elements concurrently on or after January 1, 2018.” [Environmental justice](#) should be considered when making decisions about climate change adaptation and resiliency. For additional information on how the new requirement applies to this and other elements in the general plan guidelines, refer to the [environmental justice element](#) discussion.

Complete a vulnerability assessment (steps 1-5 of the Adaptation Planning Guide)

As outlined in [Government Code section 65302\(g\)\(4\)](#) and the [APG](#), the vulnerability analysis should incorporate information from multiple sources. Case studies can also be quite helpful in order to inform a jurisdiction’s efforts. Although much of climate adaptation related policy work is an emerging practice, a number of examples are available to provide context. Case studies are available through OPR’s [Integrated Climate Adaptation Resilience Program](#) (ICARP) “Case Studies” webpage. The results of the Annual Planning Survey and the awareness of efforts occurring in surrounding communities can also be helpful. External resources such as the [Climate Resilience Toolkit](#), [Climate Adaptation Knowledge Exchange \(CAKEx\)](#) and the [Georgetown University Adaptation Clearinghouse](#) can also be helpful.

Numerous tools are available to support climate change analysis, such as those referenced in the table in [Chapter 8, Climate Change](#). Specific tools to address climate change adaptation include the following.

TOOLS TO ADDRESS CLIMATE ADAPTATION

Guidelines for CEQA compliance	CEQA Guidelines
Comprehensive framework for addressing adaptation at the local level	APG
Visualization tool for the impacts of climate change and links to resources	Cal-Adapt
Federal resource for visualizing impacts, case studies, decision support	Climate Resilience Toolkit
Guide to developing adaptation policy at the local level in California	Adaptation Planning Guide
Georgetown University Climate Center Adaptation Clearinghouse	Adaptation Clearinghouse
The State’s approach to addressing climate impacts	Safeguarding California Plan
The State’s framework for climate hazards	State Hazard Mitigation Plan
See also: Chapter 7, Climate Change of the General Plan Guidelines	Chapter 8, Climate
See also: OPR Adaptation Clearinghouse	ICARP

Including the following information will help a jurisdiction satisfy the minimum requirements of [Government Code section 65302\(g\)\(4\)](#). A deeper level of analysis is encouraged as data, policy and implementation methods continue to improve over time. In all cases, reviewing the information and process guidance in the [California Adaptation Planning Guide \(APG\)](#) should be the first step, in parallel with reviewing data and information in the [Cal-Adapt](#) tool. In some cases, working through a regional collaborative such as those working through the [Alliance of Regional Collaboratives for Climate Adaptation \(ARCCA\)](#), to identify partnering opportunities in analysis and implementation may provide value, and in some cases, resources. Regional guidance may differ from guidance provided in this chapter, and may be appropriate as long as it meets the minimum requirements as shown in the safety element checklist. Staff at the [ICARP](#) can also answer questions about the available tools and help jurisdictions choose the appropriate resources. New tools and sources of data will be added to the ICARP Adaptation Clearinghouse as they become available. Other important data sources include:

1. Local agency data on the types of assets, resources, and populations that will be sensitive to various climate change exposures. This can be obtained through overlaying [Cal-Adapt](#) outputs with the [General Plan Mapping Tool \(GPMT\)](#) and augmenting with locally relevant data. This service will be provided in updates to both tools.
2. Local agency data on current status of climate change preparedness, including institutional capacity, redundancy limitations, critical assets inventory, exposure risk and vulnerability of disadvantaged communities. Sources include municipal service reviews developed by LAFCOs, Metropolitan Planning Organization (MPO) data, other regionally available data, local hazard mitigation planning documents and data in the [General Plan Mapping Tool](#), [Cal-Adapt](#) and [MyPlan](#).
3. Historical data on natural events and hazards, including locally prepared risk and vulnerability maps, and sites that have been repeatedly damaged. This information can be obtained by visiting the [General Plan Mapping Tool](#), [MyPlan](#), [Cal-Adapt](#) and the [Climate Resilience Toolkit](#) in addition to locally available data that may provide more specificity, detail and context.
4. Existing and planned development in identified at-risk areas, including structures, roads, utilities, and essential public

Assessing vulnerability and risk can help a community plan infrastructure in more resilient areas



Image by Urban Advantage, SANDAG

facilities. Much of this data will only be available at the local level. These can be meshed with downloaded data from the [General Plan Mapping Tool](#), [MyPlan](#) and [Cal-Adapt](#).

5. Coordination with federal, state, regional, and local data and information related to protection of public health and safety and the environment, including data from special districts and local offices of emergency services. Through the [OPR Adaptation Clearinghouse](#) jurisdictions can access contact information for local, regional, State and federal offices that can assist with this work.

Developing goals and measures for climate change adaptation and resilience (steps 6-9 of the Adaptation Planning Guide)

Jurisdictions must identify a set of adaptation and resilience goals, policies, and objectives, based on the information analyzed in the vulnerability assessment outlined above, for the protection of the community. The “Identifying Adaptation Strategies” chapter of the [APG](#) provides a start to this process, and links to other resources. [CalAdapt](#), the [OPR Adaptation Clearinghouse](#) and other relevant local, regional, state and federal resources are appropriate to use. In particular, as mentioned in the vulnerability assessment section, regional collaboratives can play a useful role in both identifying policies and coordinating on implementation of those policies. See www.arccacalifornia.org for more information on regional collaboratives and potential partners in your area.

As outlined in the [APG](#), feasible implementation measures must also be developed to ensure the goals, policies, and objectives in the plan are supported through implementing actions. This can be done through the general plan implementation matrix or other mechanism that allows monitoring of progress over time. The structure of the implementation matrix or program may shift depending on whether the climate change discussion is captured in a climate action plan, adaptation plan, or incorporated in the general plan. As with the vulnerability assessment section above, a jurisdiction should start with the [APG](#), then review local or regionally relevant resources, and then review other statewide or national guides as outlined in the table above.

Whenever possible, cities and counties should work with neighboring jurisdictions to develop joint policies and coordinate on joint implementation of policy. Not only does this type of coordination increase policy consistency in a region, but it also may reduce staff and financial cost of implementation. Specific contents required in the climate adaptation discussion include:

1. Feasible methods to avoid or minimize climate change impacts associated with new uses of land. These include, but are not limited to, flooding, fire, extreme heat, sea level rise, runoff, risk, etc.). This should not just capture new risks, but also risks exacerbated by climate change.
2. The location, when feasible, of new essential public facilities outside of at-risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in at-risk areas.
3. The designation of adequate and feasible infrastructure located in an at-risk area. Meaning, any new infrastructure should be built to withstand the identified risk.
4. An approach (guidelines) to working cooperatively with relevant local, regional, state, and federal agencies. The [APG](#) includes examples of outreach and coordination measures that can be taken to develop these guidelines.
5. The identification of natural infrastructure that may be used in adaptation projects. Where feasible, the plan shall use existing natural features and ecosystem processes, or the restoration of natural features and ecosystem processes, when

developing alternatives for consideration. Additional guidance on natural infrastructure data and resources can be found at the [OPR Adaptation Clearinghouse](#).

Seismic Hazards

Requirement Description:

The safety element must establish policies to minimize the loss of property and life as a result of earthquakes. The general geology and seismic history of the region and the planning area can be addressed with a map of known seismic and geologic hazards. The element should determine the location of active fault zones designated by the State Geologist under the [Alquist-Priolo Earthquake Fault Zoning Act](#). Next, a geologic evaluation can evaluate the potential for displacement along active and potentially active faults in the planning area. Active and potentially active faults in the region should be identified with historical data on seismic ground shaking within the planning area. A geotechnical evaluation based on the [state probabilistic earthquake hazard map](#) can determine the potential for localized ground shaking, landslides, and tsunamis. Hazardous or substandard structures that may be subject to collapse in the event of an earthquake, including, but not limited to, unreinforced masonry buildings could be identified.

The geotechnical evaluation can also identify the potential for earthquake-triggered landslide, mudslide, liquefaction, and soil compaction. It should also determine the location of zones of required investigation for liquefaction. Areas that would be inundated in the event of a dam failure should also be identified. [Dam inundation maps](#) are available from the [California Office of Emergency Services \(OES\)](#). The development, facilities, and people potentially at risk in areas subject to potential inundation should be identified as well.

The safety element should include historical data on landslides and mudslides and identify areas that are landslide-prone by using, among other sources, [landslide features maps](#), [seismic hazard zone maps](#), and [geology maps](#) produced by [Department of Conservation](#). The local potential for landslides and mudslides should also be identified in a geotechnical evaluation.

Historical data on land subsidence resulting from extraction of groundwater, natural gas, oil, and geothermal resources and from hydrocompaction can be used to identify areas of known risk from liquefaction, subsidence, or ground shaking. The potential risks associated with other known geologic hazards, such as volcanic activity, avalanche, or cliff erosion may also be analyzed.

Flood Protection

Requirement Description:

Flooding is a natural function of every river, alluvial fan, and coastal area. In riverine systems, floodwaters enrich bottomlands and provide spawning habitats for native fish. There are ecological benefits to maintaining connections between the river and its floodplain.

[Land use](#) decisions directly influence the function of floodplains and may either reduce or increase potential flood hazards. The functions of floodplains include, but are not limited to, water supply, water quality, flood and erosion control, and fish and wildlife habitat. Development within floodplains may not only expose people and property to floods, but also increase the potential for flooding elsewhere and negatively impact floodplain ecosystems. [Land use](#) regulations, such as zoning and subdivision ordinances,

are the primary means of implementing general plan policies established to minimize flood hazards. In addition to including floodplain management policies in the general plan, making related changes to zoning and subdivision ordinances is crucial to the success of a floodplain management program.

In the process of preparing a flood management element, the city or county will have to collect a substantial amount of information concerning its floodplains and its watershed. There are a variety of sources for this information. Federal Emergency Management Agency (FEMA) maps are available for most communities. The U.S. Army Corps of Engineers will do floodplain delineation on a cost-sharing basis and has information on floodplains and project levees. The Department of Water Resources (DWR) also has floodplain information and a floodplain management program, as does the Central Valley Flood Protection Board. The OES and DWR have information on past flooding and flood levels based on awareness mapping. Local levee districts and resource conservation districts may also have information to share.

The Central Valley Flood Protection Plan (adopted pursuant to SB 5, the Central Valley Flood Protection Act of 2008) aims to revamp insufficient levee, bypass, and other flood defense mechanisms to create a more integrated and hazard-averse flood management system. Carrying implications for Central Valley land use, conservation, and safety planning in floodplain zones, the 2012 Central Valley Flood Protection Plan (CVFPP) documents the condition of all of the region's state and federal flood management facilities and guides improvements to flood hazard prevention along the Sacramento River and San Joaquin Rivers. All cities and counties within the Sacramento-San Joaquin Valley were required to amend their general plans by July 2015 to contain the data and analysis in the Central Valley Flood Protection Plan and include goals, policies, and objectives based on that plan, as well as relevant implementation measures (Gov. Code § 65302.9).

Key Terms

Flood management is defined as the overarching term that encompasses both floodwater management and floodplain management.

Floodwater Management

Floodwater management includes actions to modify the natural flow of floodwaters to reduce losses to human resources and/or to protect benefits to natural resources associated with flooding. Examples of floodwater management actions include containing flows in reservoirs, dams, and natural basins; conveying flows via levees, channels, and natural corridors; managing flows through reservoir reoperation; and managing watersheds by decreasing rainfall runoff and providing headwater stream protection.

Floodplain Management

Floodplain management includes actions to the floodplain to reduce losses to human resources within the floodplain and/or to protect benefits to natural resources associated with flooding. Examples of floodplain management actions include minimizing impacts of flows (e.g., flood-proofing, insurance); maintaining or restoring natural floodplain processes (e.g., riparian restoration, meander corridors, etc.); removing obstacles within the floodplain voluntarily or with just compensation (e.g., relocating at-risk structures); keeping obstacles out of the floodplain (through subdivision and zoning decisions); education and emergency preparedness planning (e.g., emergency response plans, data collection, outreach, insurance requirements, etc.); and ensuring that operations of floodwater management systems are not compromised by activities in the floodplain.

Fire Hazards

Requirement Description:

There are many opportunities to address fire protection, fire prevention and hazard mitigation in the general plan, most obviously in the safety element which deals with all manner of natural and man-made hazards to life and property. California's increasing population and expansion of development into previously undeveloped areas is creating more "[wildland-urban interface](#)" with a corresponding risk of economic loss caused by wildland fire. The changing climate, specifically the rising temperatures and increasing temporal variability of water availability, continues to increase wildfire risk in many areas. Meanwhile, drought episodes with greater frequency and severity effectively lower fuel moisture conditions to create longer fire seasons, and combined with overstocked vegetation vulnerable to insects and diseases, produce an abundance of dead woody matter prime for intense burning.

Mitigating Hazards through Drought Resiliency Plans

The onset of severe droughts in California poses considerable threats to public safety and wellbeing by increasing fire hazard susceptibility and straining already scarce water resources. Drought's toll on crop yields, livestock production, and local community water sources create food and water security concerns, in addition to economic considerations, that showcase the importance of proper preparedness plans. Climate change will likely foster more consecutive disasters – for example, droughts followed by fires, or floods followed by drought – prolonging recovery of natural resources and compounding total recovery costs.

Government Code 65302(g):

- (3) Upon the next revision of the housing element on or after January 1, 2014, the safety element shall be reviewed and updated as necessary to address the risk of fire for land classified as state responsibility areas, as defined in Section 4102 of the Public Resources Code, and land classified as very high fire hazard severity zones, as defined in Section 51177. This review shall consider the advice included in the Office of Planning and Research's most recent publication of "Fire Hazard Planning, General Technical Advice Series" and shall also include all of the following:
 - (A) Information regarding fire hazards, including, but not limited to, all of the following:
 - (i) Fire hazard severity zone maps available from the Department of Forestry and Fire Protection.
 - (ii) Any historical data on wildfires available from local agencies or a reference to where the data can be found.
 - (iii) Information about wildfire hazard areas that may be available from the United States Geological Survey.
 - (iv) General location and distribution of existing and planned uses of land in very high fire hazard severity zones and in state responsibility areas, including structures, roads, utilities, and essential public facilities. The location and distribution of planned uses of land shall not require defensible space compliance measures required by state law or local ordinance to occur on publicly owned lands or open space designations of homeowner associations

- (v) Local, state, and federal agencies with responsibility for fire protection, including special districts and local office of emergency services.
- (B) A set of goals, policies, and objectives based on the information identified pursuant to subparagraph (A) for the protection of the community from the unreasonable risk of wildfire.
- (C) A set of feasible implementation measures designed to carry out the goals, policies, and objectives based on the information identified pursuant to subparagraph (B) including, but not limited to, all of the following:
 - (i) Avoiding or minimizing the wildfire hazards associated with new uses of land.
 - (ii) Locating, when feasible, new essential public facilities outside of high fire risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in a state responsibility area or very high fire hazard severity zone.
 - (iii) Designing adequate infrastructure if a new development is located in a state responsibility area or in a very high fire hazard severity zone, including safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression.
 - (iv) Working cooperatively with public agencies with responsibility for fire protection.
- (D) If a city or county has adopted a fire safety plan or document separate from the general plan, an attachment of, or reference to, a city or county's adopted fire safety plan or document that fulfills commensurate goals and objectives and contains information required pursuant to this paragraph.

In response, many local governments are choosing to strengthen water management and drought prevention efforts by adding a separate water element to their general plan, but drought preparedness strategies could also be incorporated into the safety element as part of fire or flood hazard mitigation tactics. Structural and nonstructural flood management methods that enhance water storage and groundwater recharge work to mitigate drought impacts, and promoting greater water efficiency through land use and development policies can minimize capital damage from droughts as well as fires. As opposed to solely relying on local hazard mitigation plans, existing urban and agricultural water management plans, or expecting state or federal disaster aid after severe drought impacts, local governments can use the general plan as a tool to encourage water conservation policies, drought-tolerant parks and landscaping, water audits, and dual plumbing with recycled water. For more resources on how local governments can plan for droughts, see:

- [California's 2010 State Drought Contingency Plan](#)
- [OPR's 2014 Local Government Drought Toolkit](#)
- [2011 Climate Change Handbook for Regional Water Planning](#)

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- [California's 2009 State Water Plan for integrated water management](#)
 - [Local Government Commission's guidebook for regional water sustainability](#)

Aside from local fire plans and hazard mitigation plans, the general plan's safety element can provide a framework for inserting fire protection and prevention policy requirements in zoning, subdivision, and strategic fire defense ordinances. To safeguard the increasing "wildland-urban interface," communities with [State Responsibility Area \(SRA\)](#) or [Very High Fire Hazard Severity Zone Local Responsibility Area \(LRA\)](#) must update their safety element following the next revision of the housing element on or after January 1, 2014 to address the risk of wildland fire. In order to develop viable plans for fire protection, wildfire risk reduction, evacuation needs, and consistency between general plan elements and other local plans, the safety element shall incorporate information such as fire hazard maps and assessments, implementation goals and actionable policies, as well as any appropriate references to local fire safety plans.

As a guiding resource, OPR's [Fire Hazard Planning Technical Advisory](#) includes a detailed discussion about how to incorporate and comply with the fire hazard requirements in a general plan.

Other Considerations

Additional Requirements

The safety element must also address additional, interrelated considerations in the context of fire and geological hazards. These include evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures. The relationships between these considerations interplays throughout the required contents of the safety element, and should be analyzed in the context of safety and disasters, including climate change, drought, fire, flood, or seismic activity, as appropriate.

OPR Recommended Policies

These policies are an example of recommended policies adopted by varying jurisdictions, to be modified and used as appropriate. A full list of recommended policies for flood risk, fire risk, and climate change can be found in the guidance and technical advisories referenced throughout this chapter.

Sample Policy	Example of Application	Relationship to Other Elements
[City/county] shall promote the strengthening of planned utilities, the retrofit and rehabilitation of existing weak structures and lifeline utilities, and the relocation or strengthening of certain critical facilities to increase public safety and minimize potential damage from seismic and geologic hazards.	City of Rancho Cucamonga	Circulation, climate change, equitable and resilient communities
[City/county] shall site critical public facilities—including hospital and healthcare facilities, emergency shelters, police and fire stations, and emergency communications facilities—outside of the tsunami evacuation zone and 100-year flood plains.	Pacifica	Environmental justice, equitable and resilient communities, healthy communities
[City/county] shall identify and establish specific travel routes for the transport of hazardous materials and wastes, with key considerations being capacity to safely accommodate additional truck traffic, avoidance of residential areas, and use of interstate or state divided highways as preferred routes.	City of Rialto	Circulation, environmental justice, noise, healthy communities
[City/county] shall work to achieve consistency between general plan land use and related policies and the Airport Comprehensive Land Use Plan, as is appropriate for the community. Measures may include restrictions on permitted land uses and development criteria, including height restrictions.	Redwood City	Land use, circulation

State of California

GOVERNMENT CODE

Section 65302

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, greenways, as defined in Section 816.52 of the Civil Code, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify and annually review those areas covered by the plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources. The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982 (Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5).

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) “Military readiness activities” mean all of the following:

(I) Training, support, and operations that prepare the members of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) “Military installation” means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (g) of Section 2687 of Title 10 of the United States Code.

(b) (1) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(2) (A) Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.

(B) For purposes of this paragraph, “users of streets, roads, and highways” mean bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) (1) A conservation element for the conservation, development, and utilization of natural resources, including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies, including flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover all of the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity, and quality of the rock, sand, and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian

habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) (1) A noise element that shall identify and appraise noise problems in the community. The noise element shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight online railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average sound level (L_{dn}). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, “flood hazard zone” means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by FEMA. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 6161 of the Water Code that are available from the Department of Water Resources.

(vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) Upon the next revision of the housing element on or after January 1, 2014, the safety element shall be reviewed and updated as necessary to address the risk of fire for land classified as state responsibility areas, as defined in Section 4102 of the Public Resources Code, and land classified as very high fire hazard severity zones, as defined in Section 51177. This review shall consider the advice included in the Office of Planning and Research's most recent publication of "Fire Hazard Planning, General Plan Technical Advice Series" and shall also include all of the following:

(A) Information regarding fire hazards, including, but not limited to, all of the following:

(i) Fire hazard severity zone maps available from the Office of the State Fire Marshal.

(ii) Any historical data on wildfires available from local agencies or a reference to where the data can be found.

(iii) Information about wildfire hazard areas that may be available from the United States Geological Survey.

(iv) General location and distribution of existing and planned uses of land in very high fire hazard severity zones and in state responsibility areas, including structures, roads, utilities, and essential public facilities. The location and distribution of planned uses of land shall not require defensible space compliance measures required by state law or local ordinance to occur on publicly owned lands or open space designations of homeowner associations.

(v) Local, state, and federal agencies with responsibility for fire protection, including special districts and local offices of emergency services.

(B) A set of goals, policies, and objectives based on the information identified pursuant to subparagraph (A) for the protection of the community from the unreasonable risk of wildfire.

(C) A set of feasible implementation measures designed to carry out the goals, policies, and objectives based on the information identified pursuant to subparagraph (B), including, but not limited to, all of the following:

(i) Avoiding or minimizing the wildfire hazards associated with new uses of land.

(ii) Locating, when feasible, new essential public facilities outside of high fire risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in a state responsibility area or very high fire hazard severity zone.

(iii) Designing adequate infrastructure if a new development is located in a state responsibility area or in a very high fire hazard severity zone, including safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression.

(iv) Working cooperatively with public agencies with responsibility for fire protection.

(D) If a city or county has adopted a fire safety plan or document separate from the general plan, an attachment of, or reference to, a city or county's adopted fire safety plan or document that fulfills commensurate goals and objectives and contains information required pursuant to this paragraph.

(4) Upon the next revision of a local hazard mitigation plan, adopted in accordance with the federal Disaster Mitigation Act of 2000 (Public Law 106-390), on or after January 1, 2017, or, if a local jurisdiction has not adopted a local hazard mitigation plan, beginning on or before January 1, 2022, the safety element shall be reviewed and updated as necessary to address climate adaptation and resiliency strategies applicable to the city or county. This review shall consider advice provided in the Office of Planning and Research's General Plan Guidelines and shall include all of the following:

(A) (i) A vulnerability assessment that identifies the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts, including, but not limited to, an assessment of how climate change may affect the risks addressed pursuant to paragraphs (2) and (3).

(ii) Information that may be available from federal, state, regional, and local agencies that will assist in developing the vulnerability assessment and the adaptation policies and strategies required pursuant to subparagraph (B), including, but not limited to, all of the following:

(I) Information from the internet-based Cal-Adapt tool.

(II) Information from the most recent version of the California Adaptation Planning Guide.

(III) Information from local agencies on the types of assets, resources, and populations that will be sensitive to various climate change exposures.

(IV) Information from local agencies on their current ability to deal with the impacts of climate change.

(V) Historical data on natural events and hazards, including locally prepared maps of areas subject to previous risk, areas that are vulnerable, and sites that have been repeatedly damaged.

(VI) Existing and planned development in identified at-risk areas, including structures, roads, utilities, and essential public facilities.

(VII) Federal, state, regional, and local agencies with responsibility for the protection of public health and safety and the environment, including special districts and local offices of emergency services.

(B) A set of adaptation and resilience goals, policies, and objectives based on the information specified in subparagraph (A) for the protection of the community.

(C) A set of feasible implementation measures designed to carry out the goals, policies, and objectives identified pursuant to subparagraph (B), including, but not limited to, all of the following:

(i) Feasible methods to avoid or minimize climate change impacts associated with new uses of land.

(ii) The location, when feasible, of new essential public facilities outside of at-risk areas, including, but not limited to, hospitals and health care facilities, emergency

shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in at-risk areas.

(iii) The designation of adequate and feasible infrastructure located in an at-risk area.

(iv) Guidelines for working cooperatively with relevant local, regional, state, and federal agencies.

(v) The identification of natural infrastructure that may be used in adaptation projects, where feasible. Where feasible, the plan shall use existing natural features and ecosystem processes, or the restoration of natural features and ecosystem processes, when developing alternatives for consideration. For purposes of this clause, “natural infrastructure” means using natural ecological systems or processes to reduce vulnerability to climate change related hazards, or other related climate change effects, while increasing the long-term adaptive capacity of coastal and inland areas by perpetuating or restoring ecosystem services. This includes, but is not limited to, the conservation, preservation, or sustainable management of any form of aquatic or terrestrial vegetated open space, such as beaches, dunes, tidal marshes, reefs, seagrass, parks, rain gardens, and urban tree canopies. It also includes systems and practices that use or mimic natural processes, such as permeable pavements, bioswales, and other engineered systems, such as levees that are combined with restored natural systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

(D) (i) If a city or county has adopted the local hazard mitigation plan, or other climate adaptation plan or document that fulfills commensurate goals and objectives and contains the information required pursuant to this paragraph, separate from the general plan, an attachment of, or reference to, the local hazard mitigation plan or other climate adaptation plan or document.

(ii) Cities or counties that have an adopted hazard mitigation plan, or other climate adaptation plan or document that substantially complies with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions, climate adaptation plan or document, specifically showing how each requirement of this subdivision has been met.

(5) Upon the next revision of the housing element on or after January 1, 2020, the safety element shall be reviewed and updated as necessary to identify residential developments in any hazard area identified in the safety element that do not have at least two emergency evacuation routes.

(6) After the initial revision of the safety element pursuant to paragraphs (2), (3), (4), and (5), the planning agency shall review and, if necessary, revise the safety element upon each revision of the housing element or local hazard mitigation plan, but not less than once every eight years, to identify new information relating to flood and fire hazards and climate adaptation and resiliency strategies applicable to the city or county that was not available during the previous revision of the safety element.

(7) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(8) Before the periodic review of its general plan and before preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the agency, and the board required by this subdivision.

(9) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

(h) (1) An environmental justice element, or related goals, policies, and objectives integrated in other elements, that identifies disadvantaged communities within the area covered by the general plan of the city, county, or city and county, if the city, county, or city and county has a disadvantaged community. The environmental justice element, or related environmental justice goals, policies, and objectives integrated in other elements, shall do all of the following:

(A) Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity.

(B) Identify objectives and policies to promote civic engagement in the public decisionmaking process.

(C) Identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities.

(2) A city, county, or city and county subject to this subdivision shall adopt or review the environmental justice element, or the environmental justice goals, policies, and objectives in other elements, upon the adoption or next revision of two or more elements concurrently on or after January 1, 2018.

(3) By adding this subdivision, the Legislature does not intend to require a city, county, or city and county to take any action prohibited by the United States Constitution or the California Constitution.

(4) For purposes of this subdivision, the following terms shall apply:

(A) "Disadvantaged communities" means an area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code or an area that is a low-income area that is disproportionately affected by

environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.

(B) “Public facilities” includes public improvements, public services, and community amenities, as defined in subdivision (d) of Section 66000.

(C) “Low-income area” means an area with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low income by the Department of Housing and Community Development’s list of state income limits adopted pursuant to Section 50093 of the Health and Safety Code.

(Amended by Stats. 2021, Ch. 225, Sec. 9. (AB 9) Effective January 1, 2022.)

State of California

GOVERNMENT CODE

Section 65302.5

65302.5. (a) At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the California Geological Survey of the Department of Conservation one copy of a draft of the safety element or amendment and any technical studies used for developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.

(b) (1) The draft element of or draft amendment to the safety element of a county or a city's general plan shall be submitted to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county at least 90 days prior to either of the following:

(A) The adoption or amendment to the safety element of its general plan for each county that contains state responsibility areas.

(B) The adoption or amendment to the safety element of its general plan for each city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (i) of Section 51177.

(2) The State Board of Forestry and Fire Protection shall, and a local agency may, review the draft or an existing safety element and recommend changes to the planning agency within 60 days of its receipt regarding both of the following:

(A) Uses of land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wild land fires.

(B) Methods and strategies for wild land fire risk reduction and prevention within state responsibility areas and very high fire hazard severity zones. These methods and strategies shall reflect accepted best practices in the most recent guidance document

entitled “Fire Hazard Planning, General Plan Technical Advice Series,” as identified in Section 65040.21.

(3) (A) Prior to the adoption of its draft element or draft amendment, the board of supervisors of the county or the city council of a city shall consider the recommendations, if any, made by the State Board of Forestry and Fire Protection and any local agency that provides fire protection to territory in the city or county. If the board of supervisors or city council determines not to accept all or some of the recommendations, if any, made by the State Board of Forestry and Fire Protection or local agency, the board of supervisors or city council shall communicate in writing to the State Board of Forestry and Fire Protection or the local agency, its reasons for not accepting the recommendations.

(B) If the board of supervisors or city council proposes not to adopt the board’s recommendations concerning its draft element or draft amendment, the board, within 15 days of receipt of the board of supervisors’ or city council’s written response, may request in writing a consultation with the board of supervisors or city council to discuss the board’s recommendations and the board of supervisors’ or city council’s response. The consultation may be conducted in person, electronically, or telephonically. If the board requests a consultation pursuant to this subparagraph, the board of supervisors or city council shall not approve the draft element or draft amendment until after consulting with the board. The consultation shall occur no later than 30 days after the board’s request.

(4) If the State Board of Forestry and Fire Protection’s or local agency’s recommendations are not available within the time limits required by this section, the board of supervisors or city council may act without those recommendations. The board of supervisors or city council shall take the recommendations into consideration the next time it considers amendments to the safety element.

(Amended by Stats. 2018, Ch. 641, Sec. 5. (AB 2911) Effective January 1, 2019.)

State of California

GOVERNMENT CODE

Section 65352.3

65352.3. (a) (1) Prior to the adoption or any amendment of a city or county's general plan, proposed on or after March 1, 2005, the city or county shall conduct consultations with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that are located within the city or county's jurisdiction.

(2) From the date on which a California Native American tribe is contacted by a city or county pursuant to this subdivision, the tribe has 90 days in which to request a consultation, unless a shorter timeframe has been agreed to by that tribe.

(b) Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Section 65040.2, the city or county shall protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects.

(Amended by Stats. 2005, Ch. 670, Sec. 3. Effective October 7, 2005.)

State of California

GOVERNMENT CODE

Section 65352.4

65352.4. For purposes of Section 65351, 65352.3, and 65562.5, “consultation” means the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties’ cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American tribes shall be conducted in a way that is mutually respectful of each party’s sovereignty. Consultation shall also recognize the tribes’ potential needs for confidentiality with respect to places that have traditional tribal cultural significance.

(Added by Stats. 2004, Ch. 905, Sec. 8. Effective January 1, 2005.)