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## PLANNING COMMISSION MEETING March 7, 2023

PROJECT PROPONENT: Lassen County  
FILE NO: 700.02.02  
PROJECT: Lassen County Safety Element Update

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## County of Lassen

### Department of Planning and Building Services

• Planning • Building • Environmental Health • Code Enforcement • Surveyor • Surface Mining

**Maurice L. Anderson, Director**

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email: [EHE@co.lassen.ca.us](mailto:EHE@co.lassen.ca.us)

February 28, 2023

TO: Planning Commission  
Agenda Date: March 7, 2023

FROM: Maurice L. Anderson, Director 

SUBJECT: Make a recommendation to the Lassen County Board of Supervisors regarding adoption of the draft Safety Element update and proposed Negative Declaration

#### ***Summary:***

As required by Government Code Section 65302(g), the Lassen County Department of Planning and Building Services has prepared a draft update of the Lassen County 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 purpose of this meeting is to allow the public to comment and the Planning Commission to make a recommendation to the Board of Supervisors on the draft Safety Element update and proposed Negative Declaration, prepared in accordance with the California Environmental Quality Act. Following the Planning Commission's hearing, the Board of Supervisors will consider adoption of the proposed draft Safety Element and Negative Declaration at a public hearing conducted on a subsequent date.

#### ***Adoption Process:***

A first draft of the Safety Element and the proposed Negative Declaration, with supporting Initial Study, were introduced at the September 6, 2022, Planning Commission meeting and the October 11, 2022, Board of Supervisors meeting. This original draft was 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, and the workshop was recorded and posted online.

On October 11, 2022, the Board of Supervisors authorized release of the public draft of the Safety Element and proposed Negative Declaration for public comment, and authorized the 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. A formal public

comment period took place between November 17, 2022, and December 19, 2022, with notice sent to the State Clearinghouse and applicable agencies, and published in the Modoc County Record and Lassen County Times Online. The Board of Forestry and Fire Protection's Resource Protection Committee reviewed the draft Safety Element (assessment attached) and gave its approval on December 6, 2022. Comments were received from several agencies and are attached with a comment matrix describing how they were addressed. Verbal comments from the Board of Supervisors and the general public were also addressed. The revised draft Safety Element and proposed Negative Declaration are attached.

Once the Board of Supervisors receives recommendations from the Planning Commission, it will consider adoption of the draft Safety Element and Negative Declaration at a public hearing.

***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 was prepared for the Safety Element update, pursuant to CEQA. The draft Initial Study/Negative Declaration 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.

As discussed above, a public review period for the draft Negative Declaration and supporting Initial Study took place between November 17, 2022, and December 19, 2022, with notice sent to the State Clearinghouse and applicable agencies, and published in the Modoc County Record and Lassen County Times Online.

MLA:njm

Enclosures:

1. Comment Response Matrix
2. Agency Comments
3. Board of Forestry and Fire Protection Assessment
4. Draft Safety Element Update
5. Draft Negative Declaration and Supporting Initial Study

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# Comment Response

Feedback on the draft safety element and environmental documentation has been received since presenting to the Lassen County Planning Commission and Board of Supervisors September and October 2022. Following these meetings, the public draft was released for public comment on November 16<sup>th</sup>, 2022. The project team has documented both informal comments heard during outreach or public meetings and formal written comments received during the public comment period. The comment matrix below lists whether a comment was received formally or informally. All formal comments have been attached as appendices. All comments have been addressed by the County and are detailed on the following comment matrix.



Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	Snow and Extreme Cold should be considered for inclusion.	Draft Safety Element	The County's Multi-Jurisdictional Hazard Mitigation Plan (incorporated by reference) already addresses freezes, severe storms, and avalanche. This safety element augments this information with background and policies related to resilience centers and evacuation. For this reason, policies and actions do not require updates at this time. However, to make pertinent background information readily available for members of the public, a section has been added which briefly describes snow and extreme cold, and references back to the hazard mitigation plan (page 6).

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	100 degrees is a better cutoff for extreme heat than 92. Historic data doesn't look correct. Check for a data source out of Reno for historic weather.	Draft Safety Element	The extreme heat day cut off was updated to 100 degrees. No supplemental historic weather data sources with applicable packaged data were found, but the narrative was updated to reflect the variety of conditions experienced across the County (page 6).
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	The Forest Service and Plumas National Forest are major fire risks due to their management.	Draft Safety Element	A sentence was included on page 7 that states these agencies as major land managers of fire risk areas in proximity of Lassen County, and that the Board has stated their displeasure with their land management practices in the past.
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	PG&E needs to be added to the discussion of energy, particularly for the northwestern county, part of Westwood, and Clear Creek.	Draft Safety Element	This context has been added on page 2.

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	There are more flood zones mapped than what is actually experienced, for example in Ravendale.	Draft Safety Element	Discussed in meeting that this is federal mapping data and no updates are needed at this time.
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	Fire zones may not line up with on the ground conditions.	Draft Safety Element	Discussed in meeting that this is state mapping data and no updates are needed at this time.
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	Bieber demographics (and perhaps other demographic tables) show inaccurate data. For example, it shows no limited English-speaking households are present, but there are limited English-speaking households there.	Draft Safety Element	It was discussed in the meeting that this demographic survey data is collected by the US Census Bureau and is not 100% accurate, especially considering these are small rural communities. Notes have been added below all demographic tables stating that data may not reflect exact conditions.
1	10/11/2022	Informal	Lassen County Board of Supervisors	Lassen County Board of Supervisors	Bieber medical center needs to be added to maps and tables.	Draft Safety Element	Big Valley Health Center has been added to Bieber's profile (page 16).

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
2	10/11/2022	Informal	Thomas Traphagan		Working to gain traction and state funding for a pilot project (mentioned Janesville) that would coordinate agricultural irrigation infrastructure and water sources when fire fighting is needed. Ideally this system is integrated with state firefighting when they take over, etc.	Draft Safety Element	No changes to the Safety Element necessary as a result of this comment. This project is consistent with the Safety Element's policies and goals and future communication with the County is likely.
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	There is an inaccurate reference to a 69 kV line that has been out of commission for many years.	Draft Safety Element	This infrastructure reference has been removed.



Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	The draft has intensive ag zoning for our project site, when the area near the railroad should be industrial.	Draft Safety Element	The reference to Intensive Ag is intended to reference land use in Nubieber, not zoning. To meet recommendations from OPR and CALFIRE, the Safety Element describes land use designations, existing development, and their spatial relation to fire hazard severity zones. For that reason, zoning does not need to be discussed here. The land use descriptions have been reviewed and were adjusted to make these descriptions clear (page 74).
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	The railroad spur should be called out as an amenity/benefit.	Draft Safety Element	Nubieber's profile has been updated to include the railroad spur as an asset in both the text and on the critical assets table (page 69).

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	Nubieber's table shows no children, which is inaccurate.	Draft Safety Element	It was discussed in the meeting that this demographic survey data is collected by the US Census Bureau and is not 100% accurate, especially considering these are small rural communities. Notes have been added below all demographic tables stating that data may not reflect exact conditions.
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	The number of days over 90 degrees is much more common than the 3-4 days per year described.	Draft Safety Element	The extreme heat day cut off was updated to 100 degrees. No supplemental historic weather data sources with applicable packaged data were found, but the narrative was updated to reflect the variety of conditions experienced across the County (page 6).
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	The escape route for Nubieber calls out Kramer and 4 Corners, which has a section that has been washed out for many years.	Draft Safety Element	The related text has been updated to note this (page 70), and it has been prioritized for maintenance in Policy 2.3d.

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
3	12/2/2022	Informal	Supervisor Albaugh	Lassen County Board of Supervisors	Please verify the accuracy of the zoning references for Nubieber and Bieber, there seem to be inaccuracies in the draft.	Draft Safety Element	To meet recommendations from OPR and CALFIRE, the Safety Element describes land use designations, existing development, and their spatial relation to fire hazard severity zones. For that reason, zoning does not need to be discussed here. The land use descriptions have been reviewed and were adjusted to make these descriptions clear.

Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	How will the County maintain internal consistency with several General Plan elements being adopted at various times?	Draft Safety Element	The Safety Element's components and requirements are related to other general plan elements and content overlaps with other planning documents such as the hazard mitigation plan (HMP) and emergency operations plan (EOP). This safety element update effort involved a thorough review of the existing general plan, HMP, EOP, and previous safety element alongside state requirements of safety elements. The results of this review were incorporated into the Safety Element and ensure that requirements are satisfied without causing inconsistencies or needlessly duplicating work.



Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	The Herlong Fire Department is a division of the Herlong Public Utility District, the Westwood Fire Department is a division of the Westwood Community Services District and Spalding Fire Department is a division of the Spalding Community Services District. The Stones-Bengard CSD, Little River and the Clear Creek CSD also have fire departments. Instead of using the terminology "Fire Districts" could "Local Fire Agencies" be used.	Draft Safety Element	The "Fire District" terminology has been modified globally to "Local Fire Agencies" and the list of local fire agencies has been updated to reference the most specific division of a local fire agency (page 8).
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	We did not notice references to Emergency Medical Response. This is one of the major tasks of a local fire department. In the Big Valley area the Southern Cascades Community Services District provides emergency medical services and training. Also in the Susanville area there are ambulance services provided.	Draft Safety Element	Additional context has been added (page 8) related to emergency medical response.

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	Regarding Communications Equipment (Action 2.3h) would it be feasible to involve the fire agencies in the procurement, funding, and the use of standard communication equipment.	Draft Safety Element	Fire agencies have been added to the list of partners in the implementation table, for future involvement.
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	We recall there was a provision in the California Code requiring newly created parcels to be within a fire agency's jurisdiction. Within reason, would it be possible to have a statement in the implementation plan regarding new parcel splits in the unincorporated portions of the County be in a fire protection district?	Draft Safety Element	This is something that is already addressed within the County's Land Use Element (Policy LU 10), and is also addressed by in the Westwood/Clear Creek Area Plan (Policy LU 6). The Safety Element's policies are consistent with this and do not require change at this time.
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	Unlike most cities, weed abatement is a challenge for rural areas (Action 1.4b). Most if not all fire agencies in the County have volunteer staff and weed abatement becomes a low priority. Is there a possibility the County Fire Marshal or a department within the County structure enforce weed abatement?	Draft Safety Element	Planning and Building Services has been added to the implementation table as a responsible party (alongside the fire agencies), and will work to enforce this program as feasible.

<b>Comment Number</b>	<b>Date</b>	<b>Comment Status</b>	<b>Commenter</b>	<b>Organization</b>	<b>Specific Comment</b>	<b>Related Document</b>	<b>Addressed</b>
4	12/6/2022	Formal	Todd Eid	Lassen County LAFCO	With respect to Hazmat Training (Action 2.3f) would it be possible to include the fire agencies in trainings since many of the fire agencies are first responders?	Draft Safety Element	Fire agencies were already included on the list of partners in the implementation table for future involvement, so no changes are needed at this time.
5	12/12/2022	Formal	Tina Bartlett	CDFW	The Safety Element's adoption would not, in itself, produce environmental impacts therefore, the Department has no comment.	Draft Initial Study and Negative Declaration	Thank you for your comment.

Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
6	12/15/2022	Formal	Jared Peri	Cal OES	The jurisdiction must update the Safety Element of their general plan to include language referring to the LHMP, and direct the reader to the location of the LHMP. The direction component can be done by inserting a weblink to the current HMP, or by including directions to where it can be found. As long as the date or year of the current HMP isn't referenced, the jurisdiction will only have to make this change to the Safety Element once. If the Safety Element has the year of the expired HMP, or the HMP is inserted into the Safety Element, it will have to be revised.	Draft Safety Element	The Safety Element references the County's Multi-Jurisdictional Hazard Mitigation Plan and includes a link to this plan.



Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
6	12/15/2022	Formal	Jared Peri	Cal OES	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	Draft Safety Element	While some hazards listed in this comment may not be listed verbatim as a hazard in the hazard mitigation plan or safety element they are addressed. For example, climate change is addressed for every applicable hazard in both plans. Other hazards like subsidence and liquefaction are limited in their risk to the County, and as such are referenced within other sections.

Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
7	12/16/2022	Formal	Erik Frost	CGS	On page 2, the Draft Safety Element states: "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." There are a number of inaccuracies in this statement. The County should refer to CGS Special Publication 42 and revise this section of the Safety Element to accurately summarize the roles and responsibilities of the State, lead agencies, and owners/developers.	Draft Safety Element	Safety Element content has been updated to meet the specified suggestions by CGS (page 2).

Comment Number	Date	Comment Status	Commenter	Organization	Specific Comment	Related Document	Addressed
8	12/23/2022	Formal	Cheryl Hayhurst	CGS	Post-wildfire impacts can be life threatening and devastating to property and critical assets. CGS recommends expanding the wildfire hazard discussion to include potential post-wildfire impacts such as flooding and debris flow hazards. The following resources from the recent Governor's Office of Planning and Research Flood-After Fire Resilience Plan Alignment Guide can be reviewed for additional guidance: <a href="https://opr.ca.gov/news/2022/11-16.html">https://opr.ca.gov/news/2022/11-16.html</a> and <a href="https://resilientca.org/plan-alignment/">https://resilientca.org/plan-alignment/</a> .	Draft Safety Element	Added context to the wildfire findings section (page 87) to include discussion of post-wildfire impacts. Updated Policy 4.2a to specify post-wildfire risk assessments.

# **Appendix**

## **Formal Comments**



## LASSEN LOCAL AGENCY FORMATION COMMISSION

December 6, 2022

Mr. Maurice Anderson, Planning Director  
c/o Lassen County Planning Department  
707 Nevada Street, Suite 5  
Susanville, Ca 96130-3912

Re: General Plan Comments: Safety Element

Dear Mr. Anderson:

The Local Agency Formation Commission is writing you regarding the Draft Lassen County General Plan Safety Element. It is our understanding this element has not been approved by the Planning Commission who will provide a recommendation to the Board of Supervisors.

As stated in the draft "The Safety Element is intended to reduce the risks associated with these hazards and help the County prepare for and avoid emergency situations" This element provides an overview, Flood Hazards, Dam Failure Inundation, Fire hazards, Geotechnical hazards, Hazardous Materials and Emergency Evacuation.

With respect to this element, we have the following comments:

We will begin with a general comment regarding General Plan internal consistency. LAFCo is mindful of the costs of preparing a comprehensive General Plan. With the number of mandated General Plan elements, LAFCo is concerned about how the County would maintain (or is maintaining) internal consistency since many of these elements have been adopted at various times.

Page 8 - The Herlong Fire Department is a division of the Herlong Public Utility District, the Westwood Fire Department is a division of the Westwood Community Services District and the Spalding Fire Department is a division of the Spalding Community Services District. The Stones-Bengard CSD, Little River and the Clear Creek CSD also have fire departments. Instead of using the terminology "Fire Districts" could "Local Fire Agencies" be used.

Page 8 - We did not notice references to Emergency Medical Response. This is one of the major tasks of a local fire department. In the Big Valley area the Southern Cascades Community Services District provides emergency medical services and training. Also in the Susanville area there are ambulance services provided.

LAFCo is currently working with the Fire and EMS agencies in Lassen County to help promote efficient fire and EMS service delivery. LAFCo continuously updates information with respect to Service Reviews and Spheres of influence for local fire agencies.

LAFCo is very pleased with the implementation plan in the document. Of course, the issue will be as to whether or not the County has the staffing capacity to implement the many items in the plan.

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DEC 13 2022

Regarding Communications Equipment (Action 2.3h) would it be feasible to involve the fire agencies in the procurement, funding, and the use of standard communication equipment.

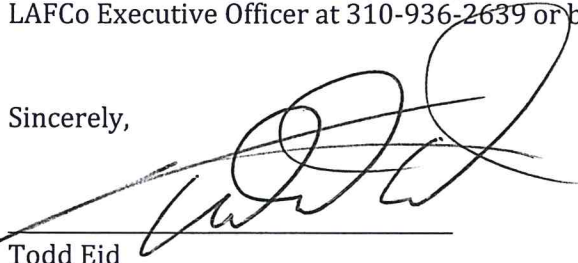
We recall there was a provision in the California Code requiring newly created parcels to be within a fire agency's jurisdiction. Within reason, would it be possible to have a statement in the implementation plan regarding new parcel splits in the unincorporated portions of the County be in a fire protection district.

Unlike most cities, weed abatement is a challenge for rural areas (Action 1.4b). Most if not all fire agencies in the County have volunteer staff and weed abatement becomes a low priority. Is there a possibility the County Fire Marshal or a department within the County structure enforce weed abatement?

With respect to Hazmat Training (Action 2.3f) would it be possible to include the fire agencies in trainings since many of the fire agencies are first responders?

On behalf of the Local Agency Formation Commission we thank you for the opportunity to provide these preliminary comments on the draft. If LAFCo can provide further advice or assistance on any of these points, please do not hesitate to contact Jennifer Stephenson, LAFCo Executive Officer at 310-936-2639 or by email at [jennifer@pcateam.com](mailto:jennifer@pcateam.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Eid', is written over a horizontal line. The signature is stylized with large loops and a long horizontal stroke extending to the left.

Todd Eid  
Chair, Lassen LAFCo

## Nancy McAllister

---

**From:** Peri, Jared@CalOES <Jared.Peri@CalOES.ca.gov>  
**Sent:** Thursday, December 15, 2022 3:24 PM  
**To:** Land Use  
**Cc:** Boemecke, Wendy@CalOES  
**Subject:** Safety Element Update Comments- Lassen County

This message comes from an external sender. EXTERNAL SENDER WARNING!

Cal OES has reviewed the Safety Element Update to the General Plan. Our office has a couple of comments.

The Safety Element addresses or will address the following hazards:

Earthquake/ Geologic Hazards  
Extreme Cold  
Extreme Heat  
Flooding  
Wildfire

When reviewing your FEMA adopted Local Hazard Mitigation Plan we find that the identified hazards are as follows:

Avalanche  
Dam Failure  
Drought  
Earthquake  
Extreme Cold  
Extreme Heat  
Flooding  
Landslide  
Severe Storm  
Volcano  
Wildfire

Below is the link to the California Office of Planning and Research Safety Element Guidelines

[General Plan Guidelines, Chapter 4: Required Elements \(ca.gov\)](#)

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

As an additional note while you are making changes to your Safety Element, we wanted to point out **some** of the steps that are required to become AB2140 complaint. The jurisdiction must update the Safety Element of their general plan to include language referring to the LHMP, and direct the reader to the location of the LHMP. The direction component can be done by inserting a weblink to the current HMP, or by including directions to where it can be found. As long as the date or year of the current HMP isn't referenced, the jurisdiction will only have to make this change to the Safety Element once. If the Safety Element has the year of the expired HMP, or the HMP is inserted into the Safety Element, it will have to be revised.

- a. Sample language to add to the Safety Element includes: "The Local Hazard Mitigation Plan (LHMP) for the City of XYZ planning area was developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and followed FEMA's 2011 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-term and long-term strategies, involve planning, policy changes, programs, projects, and other activities. The Local Hazard Mitigation Plan can be found at this location (Insert web link, or the actual LHMP, or guidance to where the LHMP can be located)."

Thank you for the opportunity to review and comment.

**Jared Peri**, Senior Emergency Services Coordinator  
Hazard Mitigation Planning Division  
**California Governor's Office of Emergency Services**



Mobile: (916) 524-3470

Email: [Jared.Peri@caloes.ca.gov](mailto:Jared.Peri@caloes.ca.gov)

Program Email: [mitigationplanning@caloes.ca.gov](mailto:mitigationplanning@caloes.ca.gov)



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Northern Region  
601 Locust Street  
Redding, CA 96001  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

GAVIN NEWSOM, Governor  
CHARLTON H. BONHAM, Director



December 12, 2022

Nancy McAllister  
Lassen County Department of Planning and Building  
707 Nevada Street, Suite 5  
Susanville, CA 96130

**Subject: Review of Lassen County Safety Update, State Clearinghouse  
Number 2022110358, Lassen County**

Dear Nancy McAllister,

The California Department of Fish and Wildlife (Department) has reviewed the draft Initial Study and Negative Declaration (ISND), dated November 2022, for the above referenced project (Project). The Department's review of this Project is pursuant to our role as the State's trustee agency for fish and wildlife resources under the California Environmental Quality Act, California Public Resources Code section 21000 et seq. As described in the ISND, 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. Its adoption would not, in itself, produce environmental impacts therefore, the Department has no comment.

We appreciate the opportunity to comment on the Project to assist the County of Lassen in adequately analyzing and minimizing/mitigating impacts to biological resources. If you have any questions, please contact Erika Iacona, Environmental Scientist, by email at [R1CEQARedding@wildlife.ca.gov](mailto:R1CEQARedding@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
*Tina Bartlett*

Tina Bartlett, Regional Manager  
Northern Region

RECEIVED

ec: State Clearinghouse  
[State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

DEC 16 2022

Erika Iacona  
[R1CEQARedding@wildlife.ca.gov](mailto:R1CEQARedding@wildlife.ca.gov)

LASSEN COUNTY / DEPARTMENT OF  
PLANNING AND BUILDING SERVICES

*Conserving California's Wildlife Since 1870*



## Nancy McAllister

---

**From:** Frost, Erik@DOC <Erik.Frost@conservation.ca.gov>  
**Sent:** Friday, December 16, 2022 9:47 AM  
**To:** Land Use  
**Cc:** OPR State Clearinghouse; OLRA@DOC  
**Subject:** Draft Lassen County Safety Element (SCH #2022110358) - CGS comments

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

This message comes from an external sender. EXTERNAL SENDER WARNING!

Hello Nancy McAllister,

The California Geological Survey (CGS) has received a Notice of Completion for the Lassen County Draft Safety Element. This email conveys the following comments from CGS concerning geologic issues related to the planning area:

1. Fault Rupture Hazards

On page 2, the Draft Safety Element states:

*"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."*

There are a number of inaccuracies in this statement. The County should refer to CGS Special Publication 42 and revise this section of the Safety Element to accurately summarize the roles and responsibilities of the State, lead agencies, and owners/developers. Specifically:

- "Active" faults are better described as "Holocene-active" faults;
- It is the responsibility of the State Geologist, not the U.S. Department of Conservation, to compile maps delineating earthquake fault zones;
- Construction is not prohibited within Alquist-Priolo earthquake fault zones;
- Alquist-Priolo earthquake fault zones typically extend for several hundred feet to either side of mapped fault trace. Setback zones recommended as part of site-specific fault investigations triggered by the Alquist-Priolo Earthquake Fault Zoning Act are commonly 50 feet, although there is no default or minimum setback distance included in the Alquist-Priolo Earthquake Fault Zoning Act.

The County may also wish to cite the following website, which will always provide an up-to-date map of earthquake zones of required investigation:

<https://maps.conservation.ca.gov/cgs/EQZApp/app/>

If you have any additional comments or questions, please feel free to call or email.

Erik

**Dr. Erik Frost**

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**California Geological Survey**  
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California  
**Department of  
Conservation**  
California Geological Survey

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## MEMORANDUM

DATE: December 23, 2022

To: Nancy McAllister  
Planner

FROM: Cheryl Hayhurst  
Senior Engineering Geologist

SUBJECT: Lassen County Safety Element Update – SCH# 2022110358

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Dear Ms. McAllister,

The California Department of Conservation, California Geological Survey (CGS) has reviewed the Draft Lassen County Safety Element Update. We offer the following comments and recommendations with respect to wildfire.

### Project Description:

The proposed project is an update to the Safety Element of the Lassen County General Plan. The Safety Element identifies hazards and hazard abatement provisions to guide land use decisions related to zoning, subdivisions, and entitlement permits.

### CGS Comments:

The Draft Lassen County Safety Element Update discusses wildfire hazard and includes discussion of community and critical asset locations within Fire Hazard Severity Zones, historic fire history, and whether communities are a certified Firewise Community. It also discusses Goals and Policies which include such items as defensible development, fuels management, and public education. These discussions generally seem from a largely pre-wildfire prevention and mitigation planning perspective. Post-wildfire impacts can be life threatening and devastating to property and critical assets. CGS recommends expanding the wildfire hazard discussion to include potential post-wildfire impacts such as flooding and debris flow hazards. The following resources from the recent Governor's Office of Planning and Research Flood-After Fire Resilience Plan Alignment Guide can be reviewed for additional guidance: <https://opr.ca.gov/news/2022/11-16.html> and <https://resilientca.org/plan-alignment/>.



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Thank you for giving us the opportunity to comment on the Draft Lassen County Safety Element Update. If you have any questions or concerns regarding the comments in this letter, please contact Cheryl Hayhurst, Senior Engineering Geologist, at 715 P Street, MS 1901, Sacramento, California 95814, (916) 445-1825, [Cheryl.Hayhurst@conservation.ca.gov](mailto:Cheryl.Hayhurst@conservation.ca.gov).

Sincerely,

DocuSigned by:

*Cheryl Hayhurst*

9CC5DD4A37CD434

December 23, 2022

Cheryl A. Hayhurst, CEG 2639  
Senior Engineering Geologist  
Sacramento, California





# General Plan Safety Element Assessment

## Board of Forestry and Fire Protection



Lassen County  
(Formal Review)

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## Purpose and Background

Upon the next revision of the housing element on or after January 1, 2014, the safety element is required to be reviewed and updated as necessary to address the risk of fire for land classified as state responsibility areas and land classified as very high fire hazard severity zones. (Gov. Code, § 65302, subd. (g)(3).)

The safety element is required to include:

- Fire hazard severity zone maps available from the Department of Forestry and Fire Protection.
- Any historical data on wildfires available from local agencies or a reference to where the data can be found.
- Information about wildfire hazard areas that may be available from the United States Geological Survey.
- The general location and distribution of existing and planned uses of land in very high fire hazard severity zones (VHFHSZs) and in state responsibility areas (SRAs), 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.
- The local, state, and federal agencies with responsibility for fire protection, including special districts and local offices of emergency services. (Gov. Code, § 65302, subd. (g)(3)(A).)

Based on that information, the safety element shall include goals, policies, and objectives that protect the community from the unreasonable risk of wildfire. (Gov. Code, § 65302, subd. (g)(3)(B).) To carry out those goals, policies, and objectives, feasible implementation measures shall be included in the safety element, which include but are not limited to:

- Avoiding or minimizing the wildfire hazards associated with new uses of land.
- 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 the SRA or VHFHSZ.
- Designing adequate infrastructure if a new development is located in the SRA or VHFHSZ, including safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression.
- Working cooperatively with public agencies with responsibility for fire protection. (Gov. Code, § 65302, subd. (g)(3)(C).)

The safety element shall also attach or reference any fire safety plans or other documents adopted by the city or county that fulfill the goals and objectives or contains the information required above. (Gov. Code, § 65302, subd. (g)(3)(D).) This might include Local Hazard Mitigation Plans, Unit Fire Plans, Community Wildfire Protection Plans, or other plans.

There are several reference documents developed by state agencies to assist local jurisdictions in updating their safety elements to include wildfire safety. The Fire Hazard Planning, General Plan Technical Advice Series from the Governor's Office of Planning and Research (OPR), referenced in Government Code section 65302, subdivision (g)(3) and available at

1400 Tenth Street  
Sacramento, CA 95814  
Phone: (916) 322-2318

The Technical Advice Series is also available from the OPR website ([Technical Advice Series link](https://www.opr.ca.gov/docs/Final_6.26.15.pdf)).<sup>\*</sup> The Technical Advice Series provides policy guidance, information resources, and fire hazard planning examples from around California that shall be considered by local jurisdictions when reviewing the safety element of its general plan.

The Board of Forestry and Fire Protection (Board) utilizes this Safety Element Assessment in the Board's review of safety elements under Government Code section 65302.5. At least 90 days prior to the adoption or amendment of their safety element, counties that contain SRAs and cities or counties that contain VHFHSZs shall submit their safety element to the Board. (Gov. Code, § 65302.5, subd. (b).) The Board shall review the safety element and respond to the city or county with its findings regarding the uses of land and policies in SRAs or VHFHSZs that will protect life, property, and natural resources from

unreasonable risks associated with wildfires, and the methods and strategies for wildfire risk reduction and prevention within SRAs or VHFHSZs. (Gov. Code, § 65302.5, subd. (b)(3).)

The CAL FIRE Land Use Planning team provides expert fire protection assistance to local jurisdictions statewide. Fire captains are available to work with cities and counties to revise their safety elements and enhance their strategic fire protection planning.

## **Methodology for Review and Recommendations**

Utilizing staff from the CAL FIRE Land Use Planning team, the Board has established a standardized method to review the safety element of general plans. The methodology includes

- 1) reviewing the safety element for the requirements in Government Code section 65302, subdivision (g)(3)(A),
- 2) examining the safety element for goals, policies, objectives, and implementation measures that mitigate the wildfire risk in the planning area (Gov. Code, § 65302, subd. (g)(3)(B) & (C)), and
- 3) making recommendations for methods and strategies that would reduce the risk of wildfires (Gov. Code, § 65302.5, subd. (b)(3)(B)).

The safety element will be evaluated against the attached Assessment, which contains questions to determine if a safety element meets the fire safety planning requirements outlined in Government Code, section 65302. The reviewer will answer whether or not a submitted safety element addresses the required information, and will recommend changes to the safety element that will reduce the wildfire risk in the planning area. These recommended changes may come from the list of sample goals, policies, objectives, and implementation measures that is included in this document after the Assessment, or may be based on the reviewer's knowledge of the jurisdiction in question and their specific wildfire risk. By answering the questions in the Assessment, the reviewer will determine if the jurisdiction's safety element has adequately addressed and mitigated their wildfire risk. If it hasn't, any specific recommendations from the reviewer will assist the jurisdiction in revising the safety element so that it does.

Once completed, the Assessment should provide clear guidance to a city or county regarding any areas of deficiency in the safety element as well as specific goals, policies, objectives, and implementation measures the Board recommends adopting in order to mitigate or reduce the wildfire threat in the planning area.

## General Plan Safety Element Assessment

Jurisdiction: Lassen County	Notes: Formal Review	CAL FIRE Unit: LMU	Date Received: November 28, 2022
County: Lassen County	LUPP Reviewer: Galvez/Massucco	UNIT CONTACT: Mark Rotlisberger	Date Reviewed: November 29, 2022

## BACKGROUND INFORMATION SUMMARY

The safety element must contain specific background information about fire hazards in each jurisdiction.

*Instructions for this table: Indicate whether the safety element includes the specified information. If YES, indicate in the comments where that information can be found; if NO, provide recommendations to the jurisdiction regarding how best to include that information in their revised safety element.*

Required Information	Yes or No	Comments and Recommendations
Are Fire Hazard Severity Zones Identified? <i>CAL FIRE or Locally Adopted Maps</i>	Yes	SE, Wildfire Hazard Serenity Zones; Figure 1-3 p. 10. Figure 2-4 p. 21. Figure 2-7 p. 28. Figure 2-10 p. 34. Figure 2-14 p. 42. Figure 2-17 p. 48. Figure 2-21 p. 56. Figure 2-24 p. 61. Figure 2-29 p. 72. Figure 2-33 p. 80.  Local Hazard Mitigation Plan (LHMP), 5.4.3. Wildfire, 5.4.3.2 Location and Extent of Hazard in County, p. 5-27.  LHMP, Figure 5-7, p. 5-28 and Figure 5-8, p. 5-29  LHMP, 5.4.3.4, Probability of Occurrence in County, p. 5-32.
Is historical data on wildfires or a reference to where the data can be found, and information about wildfire hazard areas that may be available from the United States Geological Survey, included?	Yes	SE, Historic Wildfires in Lassen County; Figure 1-4 p. 11. Figure 2-5 p. 22. Figure 2-8 p. 29. Figure 2-11 p. 35. Figure 2-15 p. 43. Figure 2-18 p. 49. Figure 2-22 p. 57. Figure 2-31 p. 75. Figure 2-34 p. 81.
Has the general location and distribution of existing and planned uses of land in very high fire hazard severity zones (VHFHSZs) and in state responsibility areas (SRAs), including structures, roads, utilities, and essential public facilities, been identified?	Yes	SE, Summary of Findings, Wildfire, p. 19, 27, 33, 40, 47, 51, 55, 62, 64, 67, 74, 79, and 84. (Land Uses & Essential Facilities)  SE, Community Capacity, Evacuation Routes, p. 17, 25, 31, 38, 45, 50, 53, 59, 63, 66, 70, 77, and 82. (Roads in FHSZ's)

Required Information	Yes or No	Comments and Recommendations
Have local, state, and federal agencies with responsibility for fire protection, including special districts and local offices of emergency services, been identified?	Yes	SE, Wildfire, Lassen County Fire Protection Districts, p. 8  SE, Lassen County Fire Protection Responsibility, Figure 1.5, p. 12
Are other fire protection plans, such as Community Wildfire Protection Plans, Local Hazard Mitigation Plans, CAL FIRE Unit or Contract County Fire Plans, referenced or incorporated into the Safety Element?	Yes	SE, Introduction, "Wildfire protection plans act as a way to organize fire mitigation and preparedness..." p. 8  SE, Countywide Findings. Wildfire, "Lassen-Modoc Unit Strategic Fire Plan..." and "...Lassen County Community Wildfire Protection Plan" p. 87  SE, Wildfire, p. 19, 40, 47, and 74.
Are residential developments in hazard areas that do not have at least two emergency evacuation routes identified?	Yes	SE, Goals Policies and Actions, Goal 1, Policy 1.1, Action 1.1c p. 88; Goal 2, Policy 2.1, Action 2.3d p. 92
Have evacuation routes and their capacity, safety, and viability under a range of emergency scenarios been identified?	Yes	SE, Community Profiles, Evacuation routes. p. 17, 25, 31, 38, 45, 50, 53, 59, 63, 66, 70, 77, and 82.

Is there any other information in the Safety Element regarding fire hazards in SRAs or VHFHSZs?

## GOALS, POLICIES, OBJECTIVES, AND FEASIBLE IMPLEMENTATION MEASURES

The safety element must contain a set of goals, policies, and objectives based on the above information to protect the community from unreasonable risk of wildfire and implementation measures to accomplish those stated goals, policies, and objectives.

*Instructions for this table: Critically examine the submitted safety element and determine if it is adequate to address the jurisdiction's unique fire hazard. Answer YES or NO appropriately for each question below. If the recommendation is irrelevant or unrelated to the jurisdiction's fire hazard, answer N/A. For NO, provide information in the Comments/Recommendations section to help the jurisdiction incorporate that change into their safety element revision. This information may utilize example recommendations from Sample Safety Element Recommendations and Fire Hazard Planning in Other Elements of the General Plan below, may indicate how high of a priority this recommendation is for a jurisdiction, or may include other jurisdiction-specific information or recommendations.*

### Section 1 Avoiding or minimizing the wildfire hazards associated with new uses of land

Questions	Yes or No	Comments and Recommendations
Does local ordinance require development standards that meet or exceed title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) ( <b><u>SRA Fire Safe Regulations</u></b> ) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing with section 1299.01) ( <b><u>Fire Hazard Reduction Around Buildings and Structures Regulations</u></b> ) for SRAs and/or VHFHSZs?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.1, Action 1.1a, p. 88  SE, Goals, Policies, and Actions, Goal 2, Policy 2.5, Action 2.5a p. 94
Are there goals and policies to avoid or minimize new residential development in VHFHSZs?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.2, Action 1.2D, p. 89, 90
Has fire safe design been incorporated into future development requirements?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.1, Goal 1, Action 1.1a, p. 88
Are new essential public facilities located outside high fire risk areas, such as VHFHSZs, when feasible?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.3, Action 1.3b, p. 90
Are there plans or actions identified to mitigate existing non-conforming development to contemporary fire safe standards, in terms of road standards and vegetative hazard?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.1c, p. 88  SE, Goals, Policies and Actions, Goal 1, Policy 1.4, Action 1.4a, p. 90
Does the plan include policies to evaluate re-development after a large fire?	Yes	SE, Goals, Policies and Actions, Goal 4, Policy 4.2, Action 4.2a, p. 95  SE, Goals, Policies and Actions Goal 4, Policy 4.2, Action 4.2b, p. 96
Is fuel modification around homes and subdivisions required for new development in SRAs or VHFHSZs?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.1, Action 1.1a, p. 88

Questions	Yes or No	Comments and Recommendations
Are fire protection plans required for new development in VHFHSZs?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy, 1.1, Action 1.1a, p. 88
Does the plan address long term maintenance of fire hazard reduction projects, including community fire breaks and private road and public road clearance?	Yes	SE, Community Profiles, Community Capacity, Evacuation routes, p. 14  SE, Goals, Policies and Actions, Goal 1, Action 1.1a, 1.1c, 1.4a, and 1.6a, p. 88, 90, 91  SE, Goals, Policies and Actions, Goal 2, Action 2.3d, p. 92
Is there adequate access (ingress, egress) to new development in VHFHSZs?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.1, Action 1.1C, p. 88
Are minimum standards for evacuation of residential areas in VHFHSZs defined?	Yes	SE, Goals, Policies and Actions, Goal 1, Policy 1.1, Action 1.1a, p. 88
If areas exist with inadequate access/evacuation routes, are they identified? Are mitigation measures or improvement plans identified?	Yes	SE, Community Profiles, Community Capacity, Evacuation Routes, p. 17, 25, 31, 38, 45, 50, 53, 59, 63, 66, 70, 77, and 82.  SE, Goals, Policies and Actions, Goal 2, Policy 2.3, Action 2.3d, p. 92
Are there policies or programs promoting public outreach about defensible space or evacuation routes? Are there specific plans to reach at-risk populations?	Yes	SE, Goals, Policies and Actions, Goal 2, Policy 2.2, Action 2.2a, and Action 2.2b, p. 91
Does the plan identify future water supply for fire suppression needs?	Yes	SE, Drought and Water Supply p. 83  SE, Goals, Policies and Actions, Goal 1, Action 1.1b, p. 88
Does new development have adequate fire protection?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.1a, p. 88

## Section 2 Develop adequate infrastructure if a new development is located in SRAs or VHFHSZs.

Does the plan identify adequate infrastructure for new development related to:	Yes or No	Comments and Recommendations
Water supply and fire flow?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.1b, p. 88
Location of anticipated water supply?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.1b, p. 88
Maintenance and long-term integrity of water supplies?	Yes	SE, Drought and Water Supply, p. 85



Does the plan identify adequate infrastructure for new development related to:	Yes or No	Comments and Recommendations
		SE, Goals, Policies and Actions, Goal 1, Action 1.1b, 1.3c, p. 88, 90
Evacuation and emergency vehicle access?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.1c, p. 88
Fuel modification and defensible space?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.1a, p. 88
Vegetation clearance maintenance on public and private roads?	Yes	SE, Drought and Water Supply, p. 12  SE, Goals, Policies and Actions, Goal 1, Action 1.4a, 1.6a, p. 90, 91  SE, Goals, Policies and Actions, Goal 2, Action 2.3d, p. 92
Visible home and street addressing and signage?	Yes	SE, Goals, Policies and Actions, Goal 3, Action 3.1e, p. 95
Community fire breaks? Is there a discussion of how those fire breaks will be maintained?	Yes	SE, Goals, Policies and Actions, Goal 1, Action 1.4A, p. 90

### Section 3 Working cooperatively with public agencies responsible for fire protection.

Question	Yes or No	Comments and Recommendations
Is there a map or description of existing emergency service facilities and areas lacking service, specifically noting any areas in SRAs or VHFHSZs?	Yes	SE, Community Profiles, Summary of Findings, Wildfire, p. 19, 27, 33, 40, 47, 51, 55, 62, 64, 67, 74, 79, and 84.
Does the plan include an assessment and projection of future emergency service needs?	Yes	SE, Hazards in Lassen County, Wildfire, Lassen County Fire Protection Districts, p. 8  SE, Goals, Policies and Actions, Goal 2, Action 2.2d, p. 92
Are goals or standards for emergency services training described?	Yes	SE, Goals, Policies and Actions, Goal 2, Action 2.3F, p. 92  SE, Goals, Policies and Actions, Goal 2, SE, Goals, Policies and Actions, Action 2.5C, p. 94

Question	Yes or No	Comments and Recommendations
		SE, Goals, Policies and Actions, Goal 3, Action 3.1C, p. 94
Does the plan outline inter-agency preparedness coordination and mutual aid multi-agency agreements?	Yes	SE, Community Findings, Wildfire, p. 87  SE, Goals, Policies and Actions, Goal 3, Action 3.2B, p. 95  SE, Goals, Policies and Actions, Goal 3, Action 3.2C, p. 95

## Sample Safety Element Recommendations

These are examples of specific policies, objectives, or implementation measures that may be used to meet the intent of Government Code sections 65302, subdivision (g)(3) and 65302.5, subdivision (b). Safety element reviewers may make recommendations that are not included here.

### A. MAPS, PLANS AND HISTORICAL INFORMATION

1. Include or reference CAL FIRE Fire Hazard Severity Zone maps or locally adopted wildfire hazard zones.
2. Include or reference the location of historical information on wildfires in the planning area.
3. Include a map or description of the location of existing and planned land uses in SRAs and VHFHSZs, particularly habitable structures, roads, utilities, and essential public facilities.
4. Identify or reference a fire plan that is relevant to the geographic scope of the general plan, including the Unit/Contract County Fire Plan, Local Hazard Mitigation Plan, and any applicable Community Wildfire Protection Plans.
5. Align the goals, policies, objectives, and implementation measures for fire hazard mitigation in the safety element with those in existing fire plans, or make plans to update fire plans to match the safety element.
6. Create a fire plan for the planning area.

### B. LAND USE

1. Develop fire safe development codes to use as standards for fire protection for new development in SRAs or VHFHSZs that meet or exceed the statewide minimums in the SRA Fire Safe Regulations.
2. Adopt and have certified by the Board of Forestry and Fire Protection local ordinances which meet or exceed the minimum statewide standards in the SRA Fire Safe Regulations.
3. Identify existing development that do not meet or exceed the SRA Fire Safe Regulations or certified local ordinances.
4. Develop mitigation measures for existing development that does not meet or exceed the SRA Fire Safe Regulations or certified local ordinances or identify a policy to do so.

### C. FUEL MODIFICATION

1. Develop a policy to communicate vegetation clearance requirements to seasonal, absent, or vacation rental owners.
2. Identify a policy for the ongoing maintenance of vegetation clearance on public and private roads.
3. Include fuel breaks in the layout/siting of subdivisions.
4. Identify a policy for the ongoing maintenance of existing or proposed fuel breaks.
5. Identify and/or map existing development that does not conform to current state and/or locally adopted fire safety standards for access, water supply and fire flow, signing, and vegetation clearance in SRAs or VHFHSZs.
6. Identify plans and actions for existing non-conforming development to be improved or mitigated to meet current state and/or locally adopted fire safety standards for access, water supply and fire flow, signing, and vegetation clearance.

## D. ACCESS

1. Develop a policy that approval of parcel maps and tentative maps in SRAs or VHFHSZs is conditional based on meeting the SRA Fire Safe Regulations and the Fire Hazard Reduction Around Buildings and Structures Regulations, particularly those regarding road standards for ingress, egress, and fire equipment access. (See Gov. Code, § 66474.02.)
2. Develop a policy that development will be prioritized in areas with an adequate road network and associated infrastructure.
3. Identify multi-family housing, group homes, or other community housing in SRAs or VHFHSZs and develop a policy to create evacuation or shelter in place plans.
4. Include a policy to develop pre-plans for fire risk areas that address civilian evacuation and to effectively communicate those plans.
5. Identify road networks in SRAs or VHFHSZs that do not meet title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 2 and 3 (commencing with section 1273.00) or certified local ordinance and develop a policy to examine possible mitigations.

## E. FIRE PROTECTION

1. Develop a policy that development will be prioritized in areas with adequate water supply infrastructure.
2. Plan for the ongoing maintenance and long-term integrity of planned and existing water supply infrastructure.
3. Map existing emergency service facilities and note any areas lacking service, especially in SRAs or VHFHSZs.
4. Project future emergency service needs for the planned land uses.
5. Include information about emergency service trainings or standards and plans to meet or maintain them.
6. Include information about inter-agency preparedness coordination or mutual aid agreements.

## **Fire Hazard Planning in Other Elements of the General Plan**

When updating the General Plan, here are some ways to incorporate fire hazard planning into other elements. Wildfire safety is best accomplished by holistic, strategic fire planning that takes advantage of opportunities to align priorities and implementation measures within and across plans.

### **LAND USE ELEMENT**

Goals and policies include mitigation of fire hazard for future development or limit development in very high fire hazard severity zones.

Disclose wildland urban-interface hazards, including fire hazard severity zones, and/or other vulnerable areas as determined by CAL FIRE or local fire agency.

Design and locate new development to provide adequate infrastructure for the safe ingress of emergency response vehicles and simultaneously allow citizen egress during emergencies.

Describe or map any Firewise Communities or other fire safe communities as determined by the National Fire Protection Association, Fire Safe Council, or other organization.

### **HOUSING ELEMENT**

Incorporation of current fire safe building codes.

Identify and mitigate substandard fire safe housing and neighborhoods relative to fire hazard severity zones.

Consider diverse occupancies and their effects on wildfire protection (group housing, seasonal populations, transit-dependent, etc).

### **OPEN SPACE AND CONSERVATION ELEMENTS**

Identify critical natural resource values relative to fire hazard severity zones.

Include resource management activities to enhance protection of open space and natural resource values.

Integrate open space into fire safety planning and effectiveness.

Mitigation for unique pest, disease and other forest health issues leading to hazardous situations.

### **CIRCULATION ELEMENT**

Provide adequate access to very high fire hazard severity zones.

Develop standards for evacuation of residential areas in very high fire hazard severity zones.

Incorporate a policy that provides for a fuel reduction maintenance program along roadways.



COUNTY OF LASSEN

# Safety Element

MARCH 2023

**DRAFT**

**DUDEK**

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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.<sup>1</sup> 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, and the most recent LHMP can be found here:

<https://www.lassencounty.org/sites/all/modules/pubdlnet/pubdlnet.php?fid=3765>

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.*

<sup>1</sup> 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.<sup>2</sup>

One dangerous result of earthquakes is surface rupture, which can cause major damage to structures and occupants. To address this issue, the Alquist-Priolo Earthquake Fault Zoning Act was passed. Holocene-active faults are identified by the State Geologist, and a regulatory buffer around these faults has been developed called **Alquist-Priolo earthquake fault zones**. Development in these zones bears additional regulations, including site-specific fault investigations. 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.<sup>3</sup> Pacific Gas & Electric (PG&E) provides LMUD with electricity through two PG&E-owned transmission lines and is also the direct energy provider to a northwestern part of the County. 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

#### ALQUIST-PRIOLO EARTHQUAKE FAULT ZONES

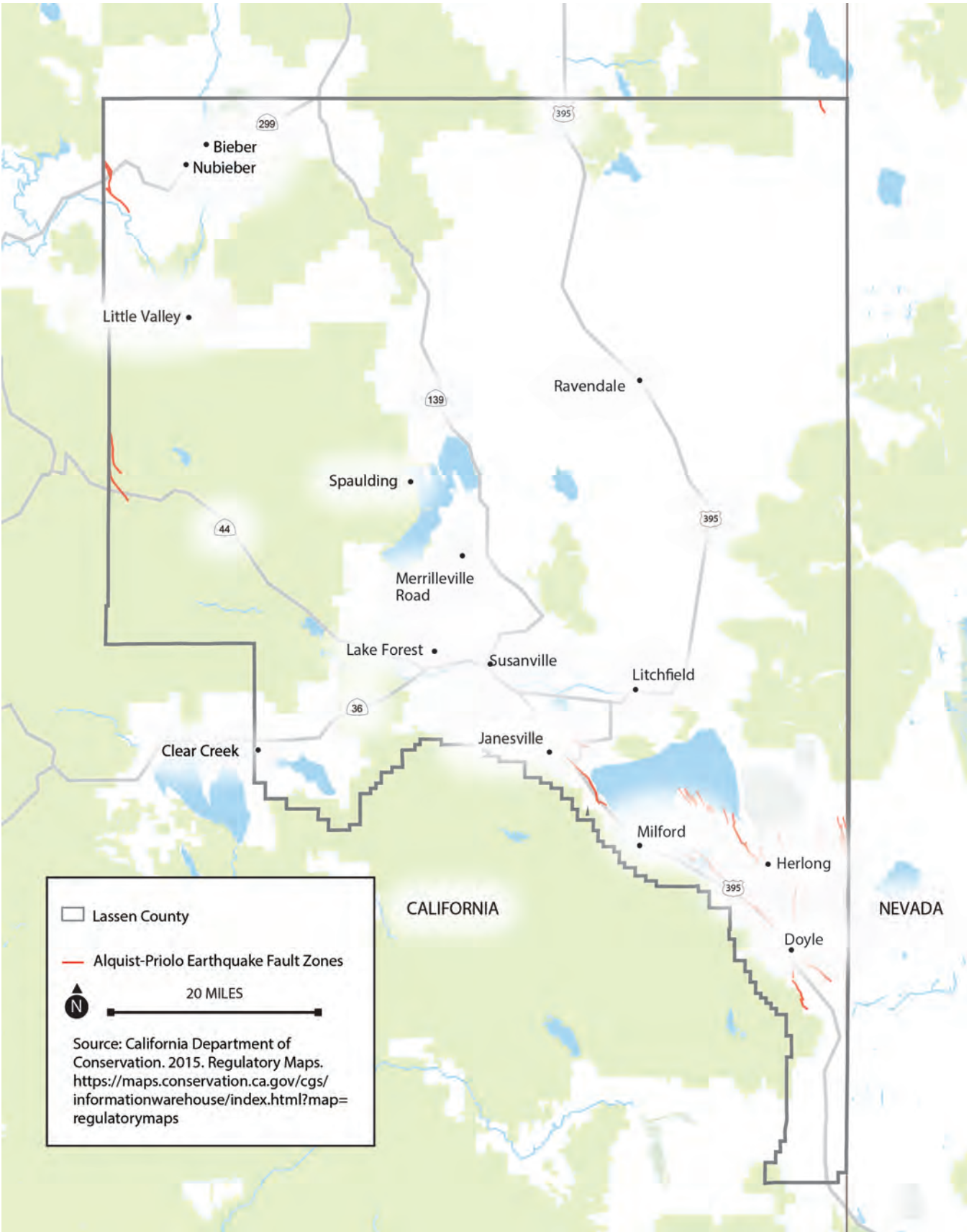
*A holocene-active fault is one that has ruptured in the last 11,000 years.*

*Up-to-date mapping resources for the public to strengthen awareness and prevent unsafe construction in these areas is available here: <https://maps.conservation.ca.gov/cgs/EQZApp/>*

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

<sup>3</sup> 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](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**





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

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, snow, or 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**.



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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 Sheriffs 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 Cold and Snow

Extreme cold occurs when temperatures fall far below freezing and can result in health complications and hospitalizations. Extreme cold can also cause infrastructure failures and agricultural impacts. When accompanied by snow, many of the issues can be compounded to impact health, buildings, transportation, and communication. Cold temperatures vary throughout the county, based mainly on elevation. Temperatures can reach freezing conditions at any point in the year. Generally, the majority of the County will experience single-digit temperatures annually, but only some areas will experience temperatures below zero degrees Fahrenheit, and usually only for a few days a year. Individuals are generally vulnerable to this hazard due to physical sensitivities such as age or preexisting conditions. As it relates to snow, buildings and infrastructure can also be vulnerable. Certain roads are seasonally closed due to snow, and occasionally mountain passes west of Susanville on Highway 36 are closed. Road closures can lead to issues with emergency response by residents and first responders. Snow also impacts access to the mountain top communications infrastructure listed on **Table 1-1**. Power infrastructure can be similarly impacted by snow or energy surges from elevated electric heating needs (see Energy Shortages and Outages, above).

Related to climate change, extreme cold is likely to become less of a concern in Lassen County in the coming century. Annual average daily minimum temperatures (the average of the coldest temperatures for every day in a year) are projected to increase between 4- and 10-degrees Fahrenheit over the next 80 years, depending on the climate model used. Climate change is also expected to impact snow, with temperature increases over time likely causing a shift in some snow events becoming rain instead. This does not mean that these extreme cold or snow events will disappear entirely, but they are not expected to get more frequent in the future.

### 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. In Lassen County, temperatures can range depending on where you are, but for the purposes of this element extreme heat days will be considered days that exceed 100°F.<sup>6</sup> Heat waves are periods of time where consecutive days exceed 100°F.

Extreme heat occurs most often in the summer in Lassen County. Climate change is expected to increase the average temperature year-round, including the frequency of extreme heat days. Depending on the climate model used, extreme heat days are projected to occur 2 to 10 times more often than historic averages.<sup>7</sup> Additionally, historic heat waves lasted 2.8 days on average and are projected to increase to 8.2 days on average by 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

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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/>.

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.<sup>8</sup> 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. Major land managers for fire risk areas in proximity of Lassen County include Lassen, Plumas, and Modoc National Forests, as well as the Bureau of Land 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. Lassen County's Board of Supervisors has expressed concerns to land managers about inadequate land management across the county in the past. 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 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

### 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.*

<sup>8</sup> USGS (U.S. Geological Survey). 2020. "Floods and Recurrence Intervals."



## INTRODUCTION

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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 agencies (see **Figure 1-5, Fire Protection Responsibility**). These fire agencies often provide emergency medical response in addition to fire protection, including ambulance services offered in Susanville and emergency medical services and training in the Big Valley Area by the neighboring Southern Cascades Community Services District. 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 local fire agencies with various levels of full time and volunteer fire fighters.

The Local Fire Agencies are listed here:

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

These local fire agencies are discussed in the subsequent Community Profiles for applicable communities, and further information about Lassen County’s local fire agencies can be seen on Lassen County’s LAFCo website.<sup>9</sup> Additional fire protection services are not anticipated, as the County is projected to experience slow declines in population through 2060.<sup>10</sup> As populations decline, obtaining adequate funding and finding volunteers for fire departments may become larger issues.

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>):

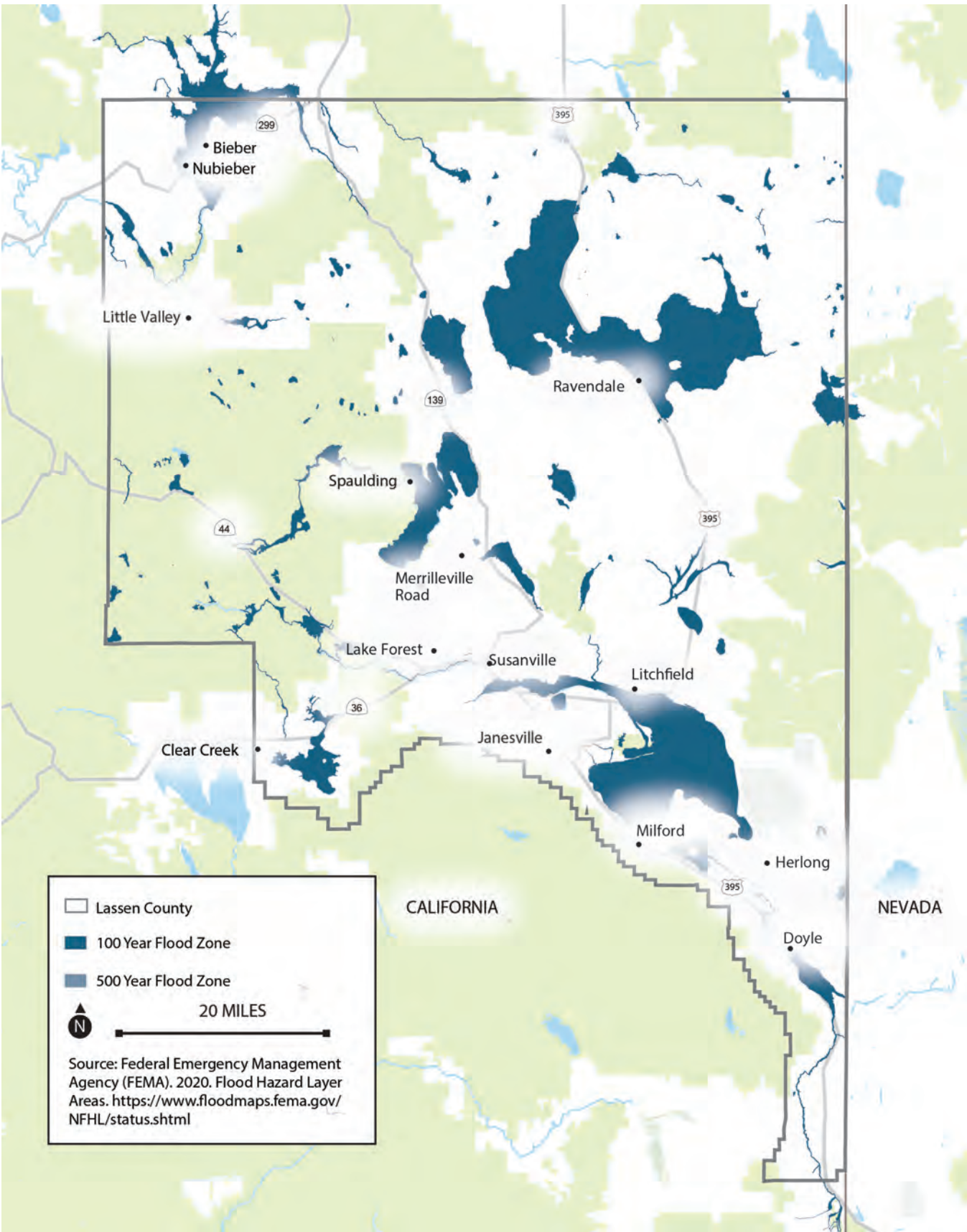
- Lassen County Community Wildfire Protection Plan
- Standish Litchfield CWPP
- Richmond Gold Run Johnstonville CWPP
- Ravendale Termo CWPP
- Pittville CWPP
- Madeline CWPP
- Herlong CWPP
- Doyle CWPP
- Bieber-Nubieber CWPP

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<sup>9</sup> 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](https://www.lassenlafco.org/uploads/1/1/4/5/11454087/a_lassen_fire-msr-soi_2020_d5_w_maps.pdf).

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

Figure 1-2. Flood Zones in Lassen County





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

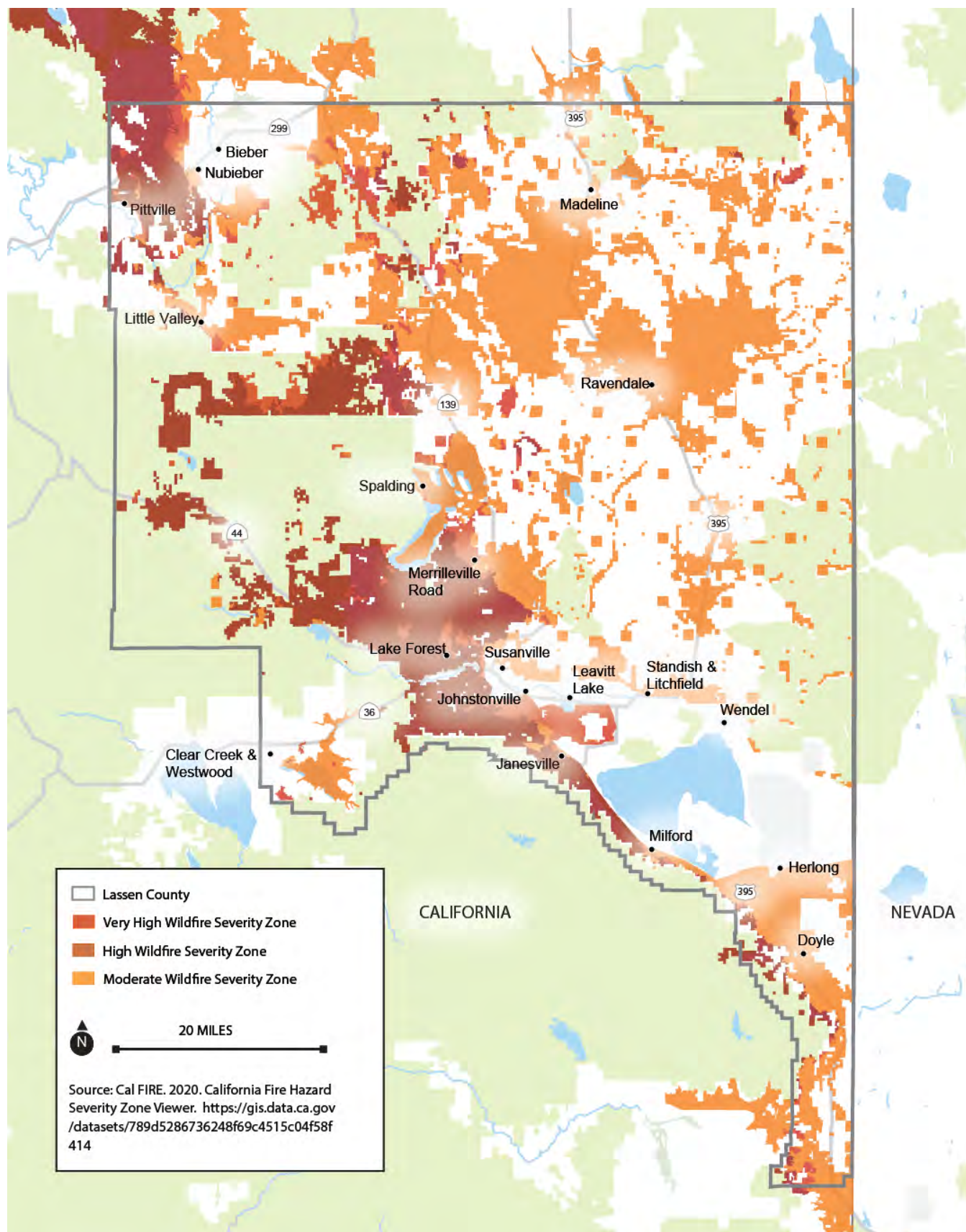
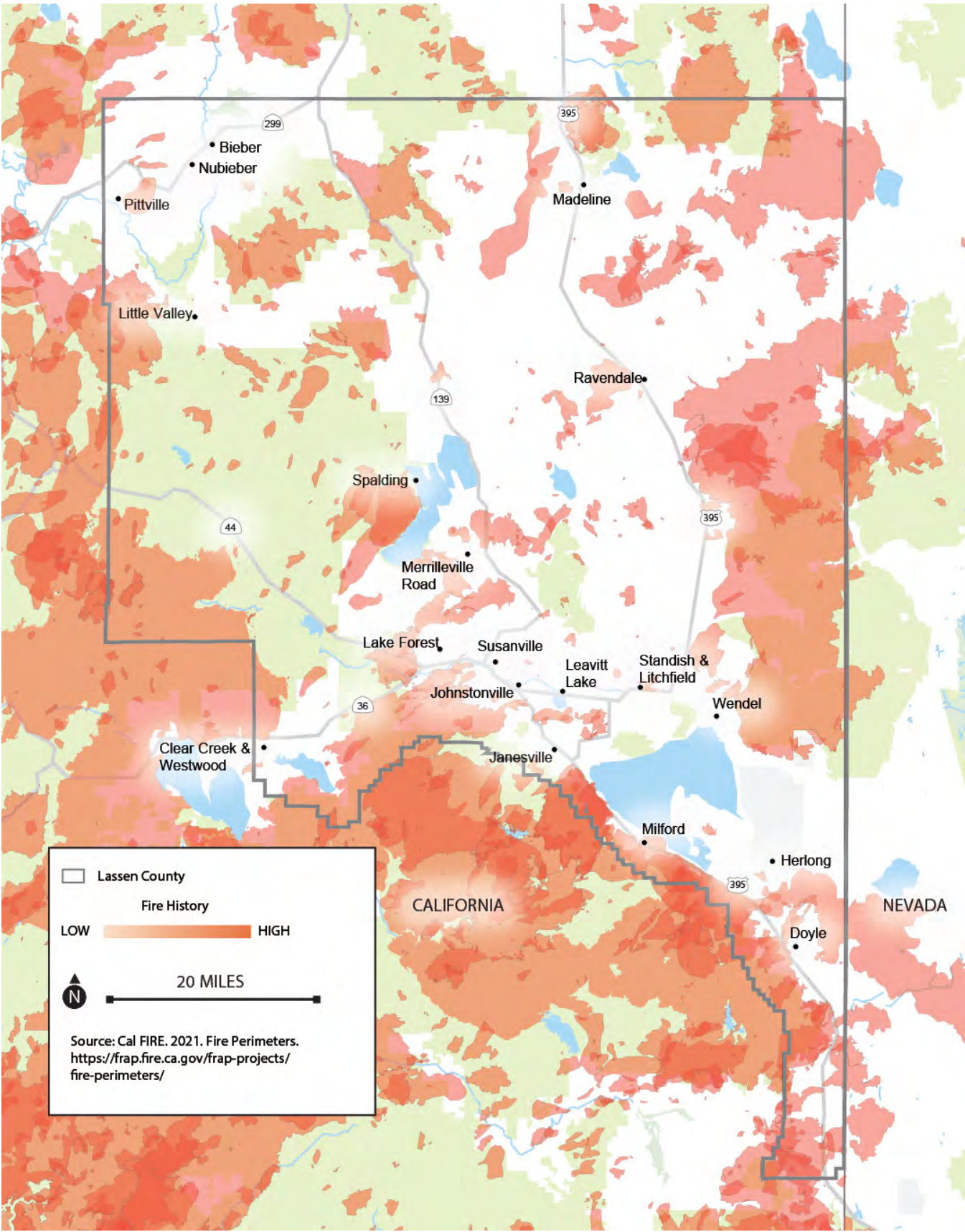
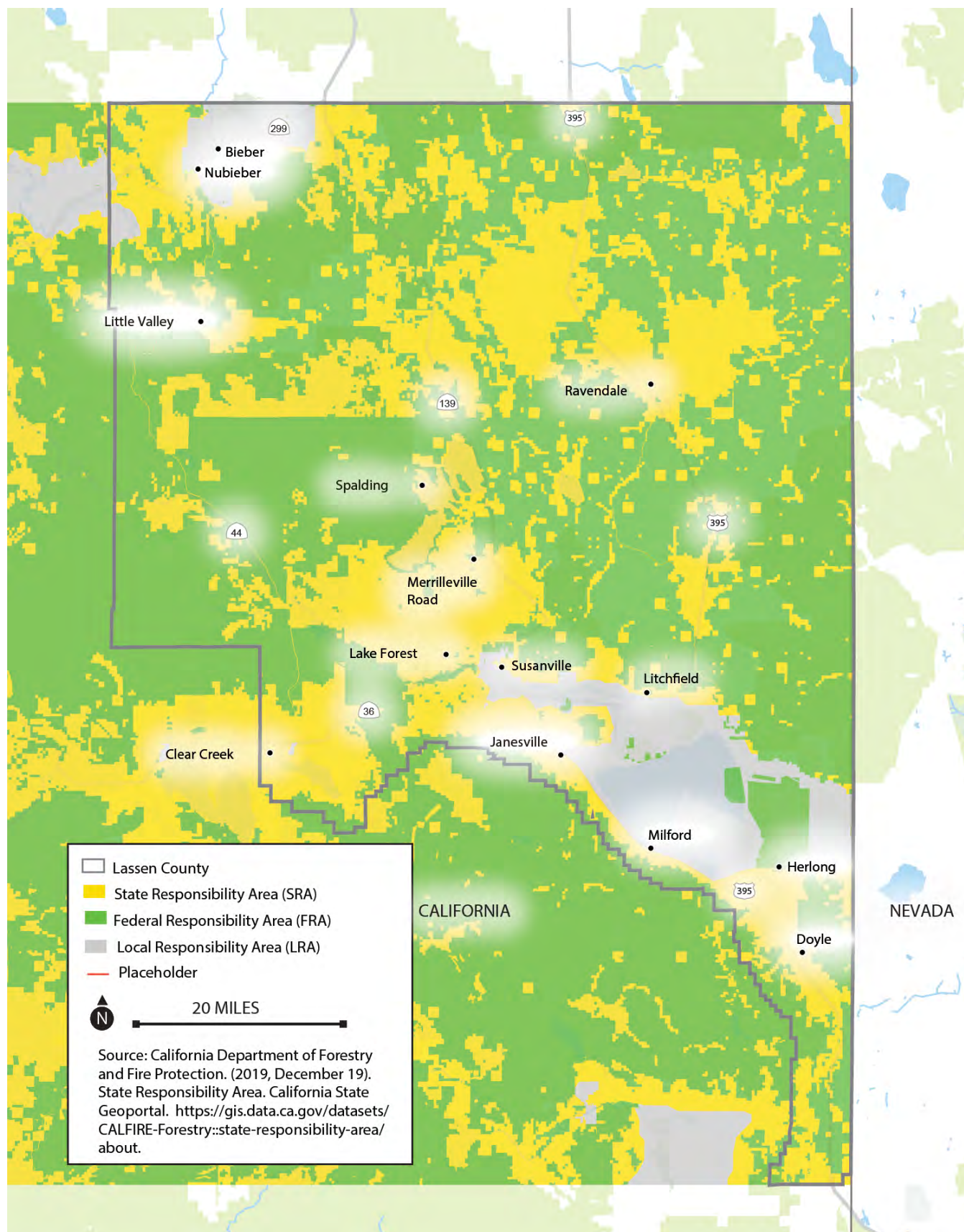




Figure 1-4. Historic Wildfires in Lassen County





**Figure 1-5. Fire Protection Responsibility**



## 2. Community Profiles

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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. Extreme cold and snow, included in the countywide assessment, is not included in this assessment as there is not community-specific data on this hazard.

---

#### 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

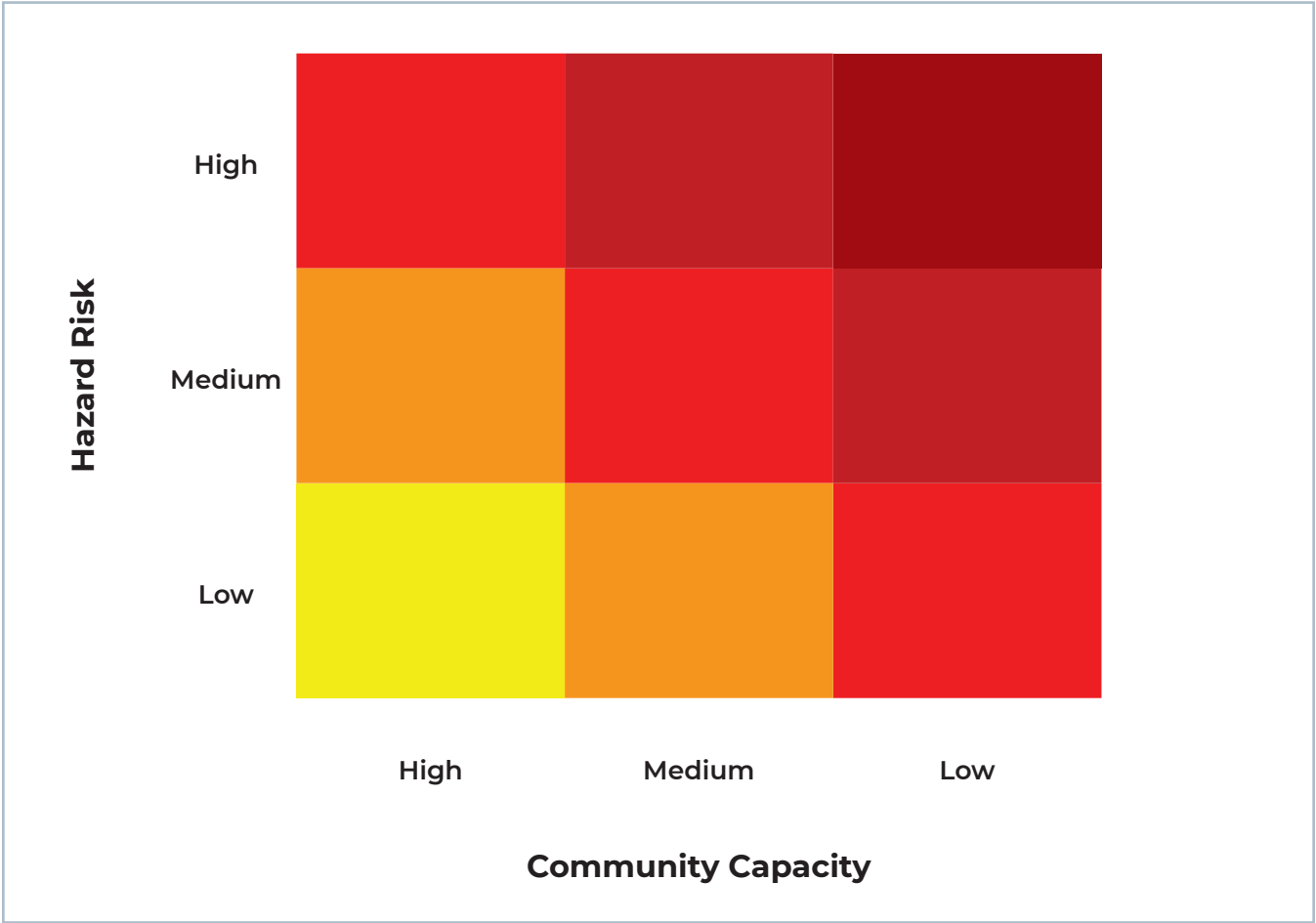
SUMMARY OF FINDINGS

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.<sup>1</sup> 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, health center, and fire station, as shown in **Table 2-2**, all of which are located outside of hazard zones; however, the Fire Station, health center, and Big Valley High School require power to function properly and are therefore vulnerable to energy shortages and outages.

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
Major Commercial Hubs	None	N/A
Medical	Big Valley Health Center	Energy Shortages and Outages
Schools	Big Valley Jr/Sr High	Energy Shortages and Outages

\* Airport within 1 mile of Bieber.

VULNERABLE POPULATIONS

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

As shown in **Table 2-3**, Bieber has a high proportion of older adults living alone and people with disabilities.<sup>2</sup> 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 <sup>1</sup>	21.2%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English-Speaking Households <sup>2</sup>	0.0%*	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	27.5%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	37.5%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	12.8%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

#### 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:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

- \* It has been noted by community members that the lack of limited-English speaking households in Bieber is inaccurate. This data is an estimate based on Census Bureau survey data and should be updated in the future if more fine-grain data becomes available.

- <sup>1</sup> 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.

- <sup>2</sup> 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.

- <sup>3</sup> 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.

- <sup>4</sup> 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.

- <sup>5</sup> Percent of total population under 5 years.

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

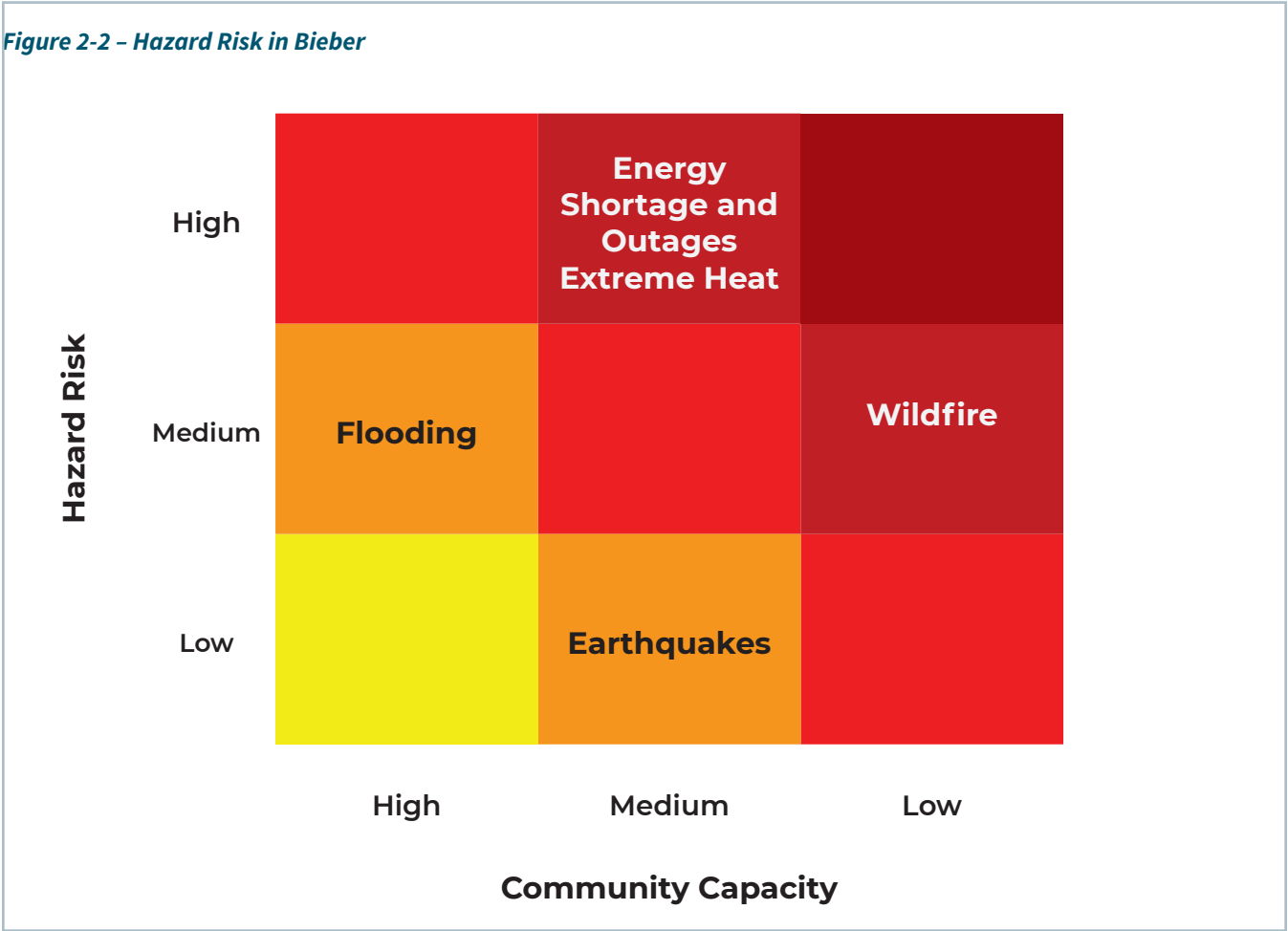
## EVACUATION ROUTES

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.

<sup>2</sup> 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.



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.<sup>3</sup> 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.<sup>4</sup> 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 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.<sup>5</sup> 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](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

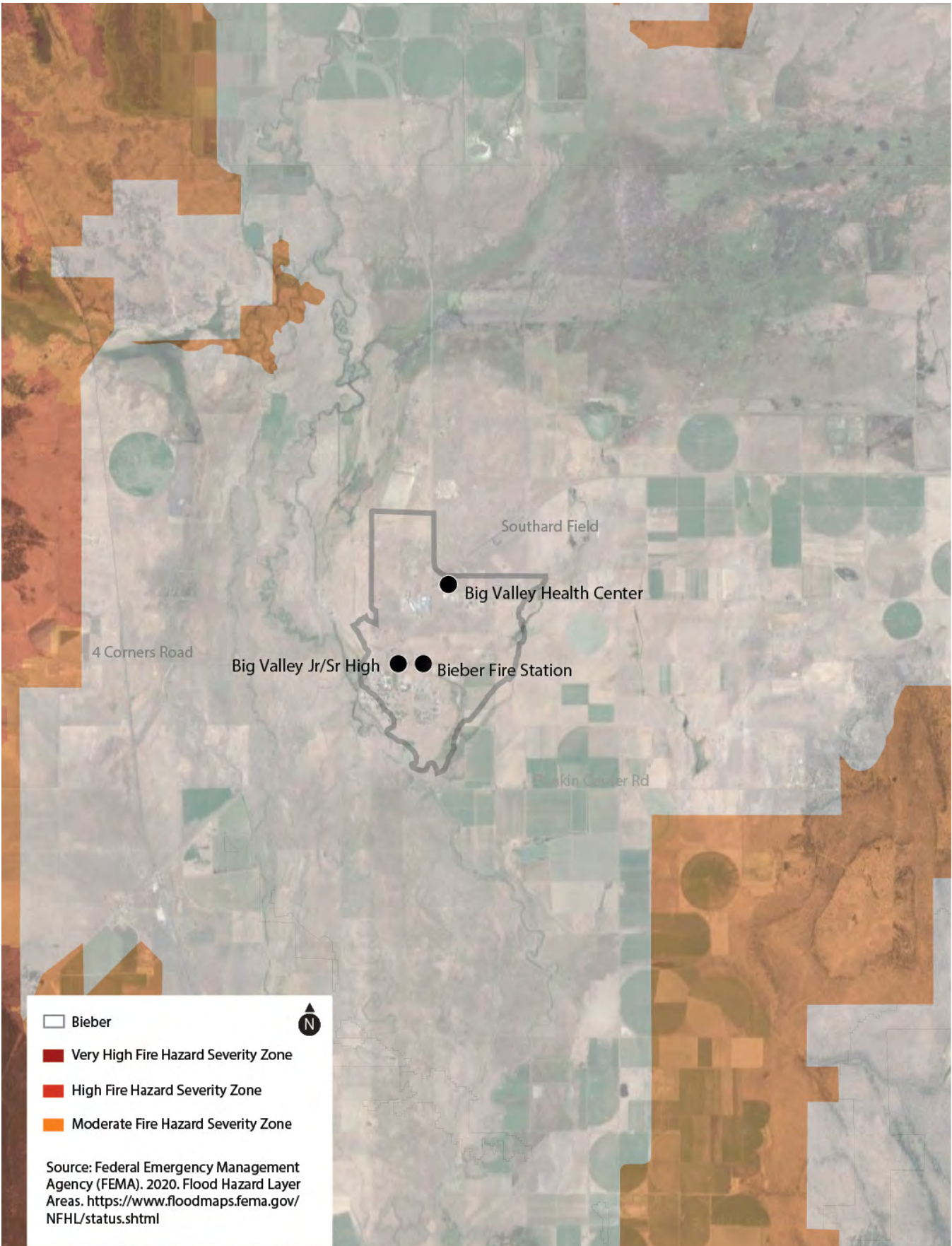


Figure 2-5. Historic Fires in Bieber





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).<sup>6</sup> 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 <sup>1</sup>	1.9%	31.8%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English-Speaking Households <sup>2</sup>	7.0%	0.0%*	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	65.0%	36.4%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	22.0%	21.1%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	0.0%*	6.7%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

### Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> Percent of total population under 5 years.

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

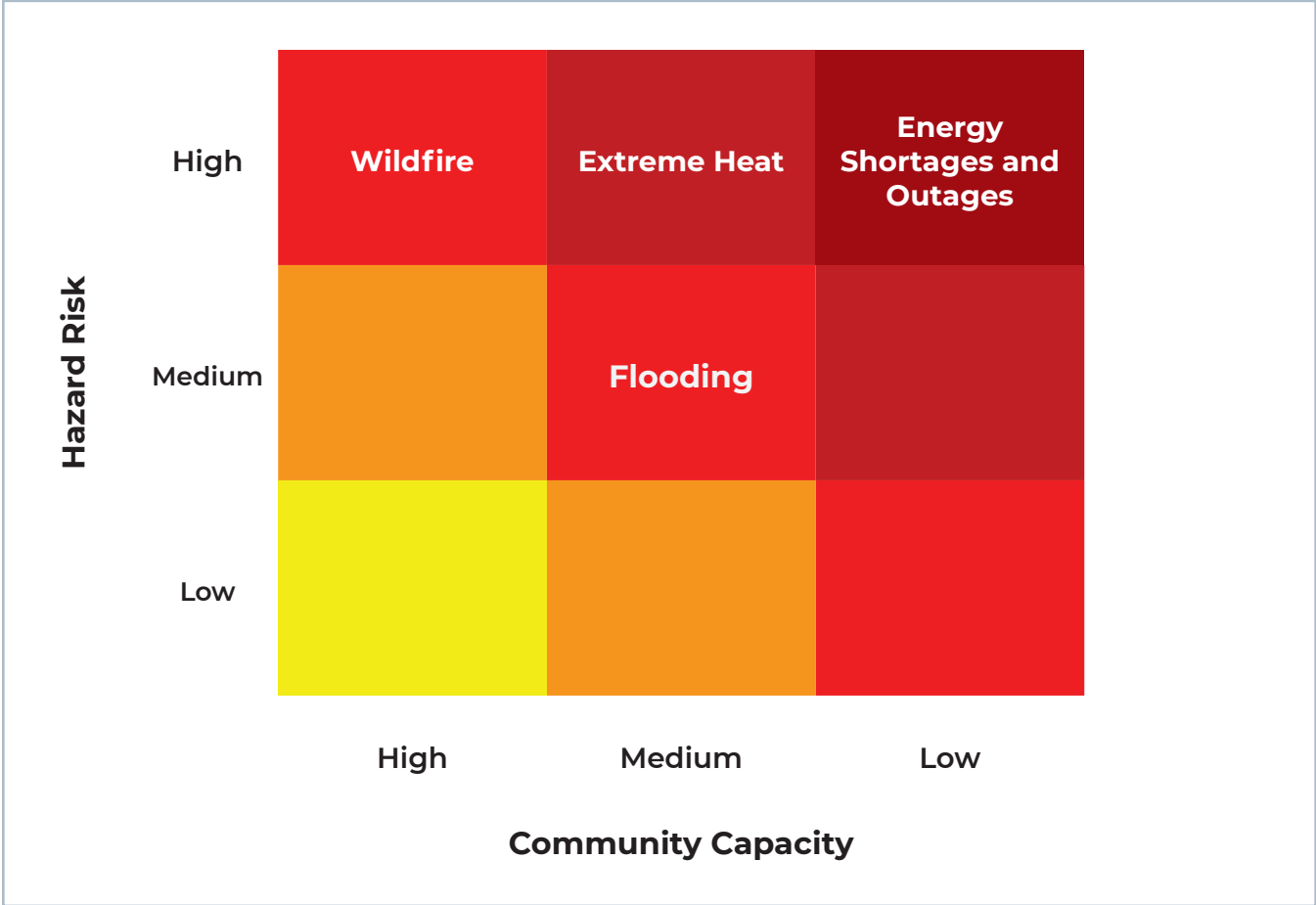
EVACUATION ROUTES

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.<sup>7</sup> Historically, heat waves lasted 2.6 days and are projected to increase to 9.0 days between 2020 and 2050.<sup>8</sup> 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.<sup>9</sup> 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.

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7 Cal-Adapt 2020.

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

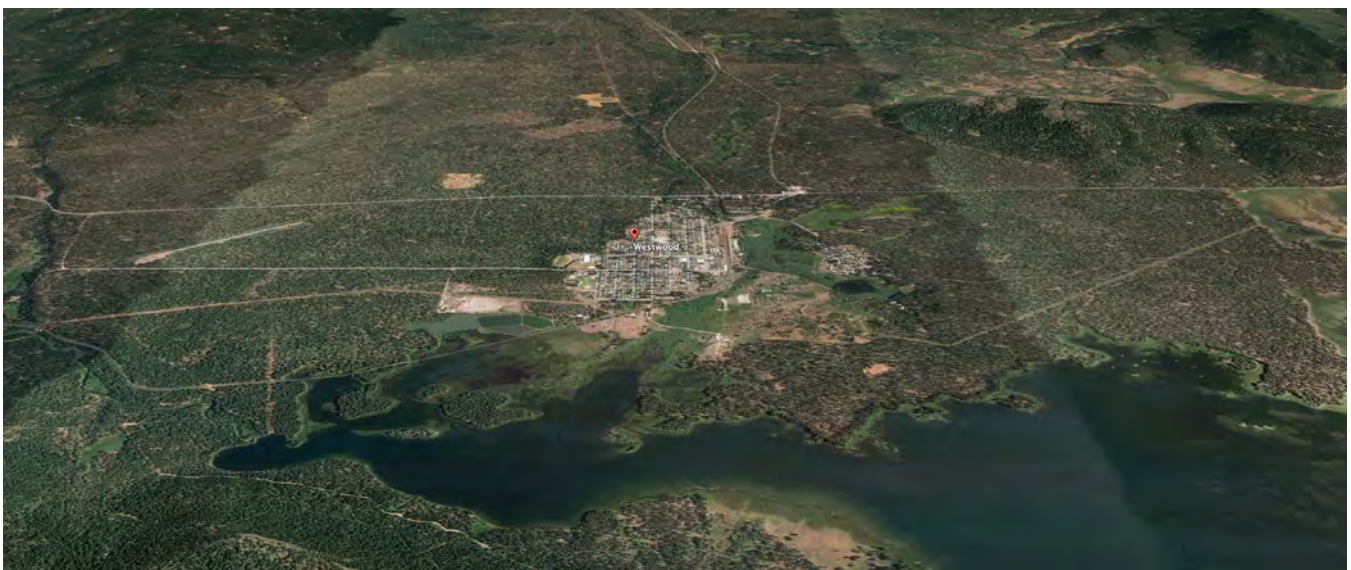
9 California Department of Water Resources. (2021). *Dam Breach Inundation Map*. Retrieved October 20, 2021, from [https://fmds.water.ca.gov/webgis/?appid=dam\\_prototype\\_v2](https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2).

## 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.<sup>10</sup> 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's fire department, with the remainder being provided by CAL FIRE.



Google Earth image of Westwood, Lassen County, CA

<sup>10</sup> 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>.

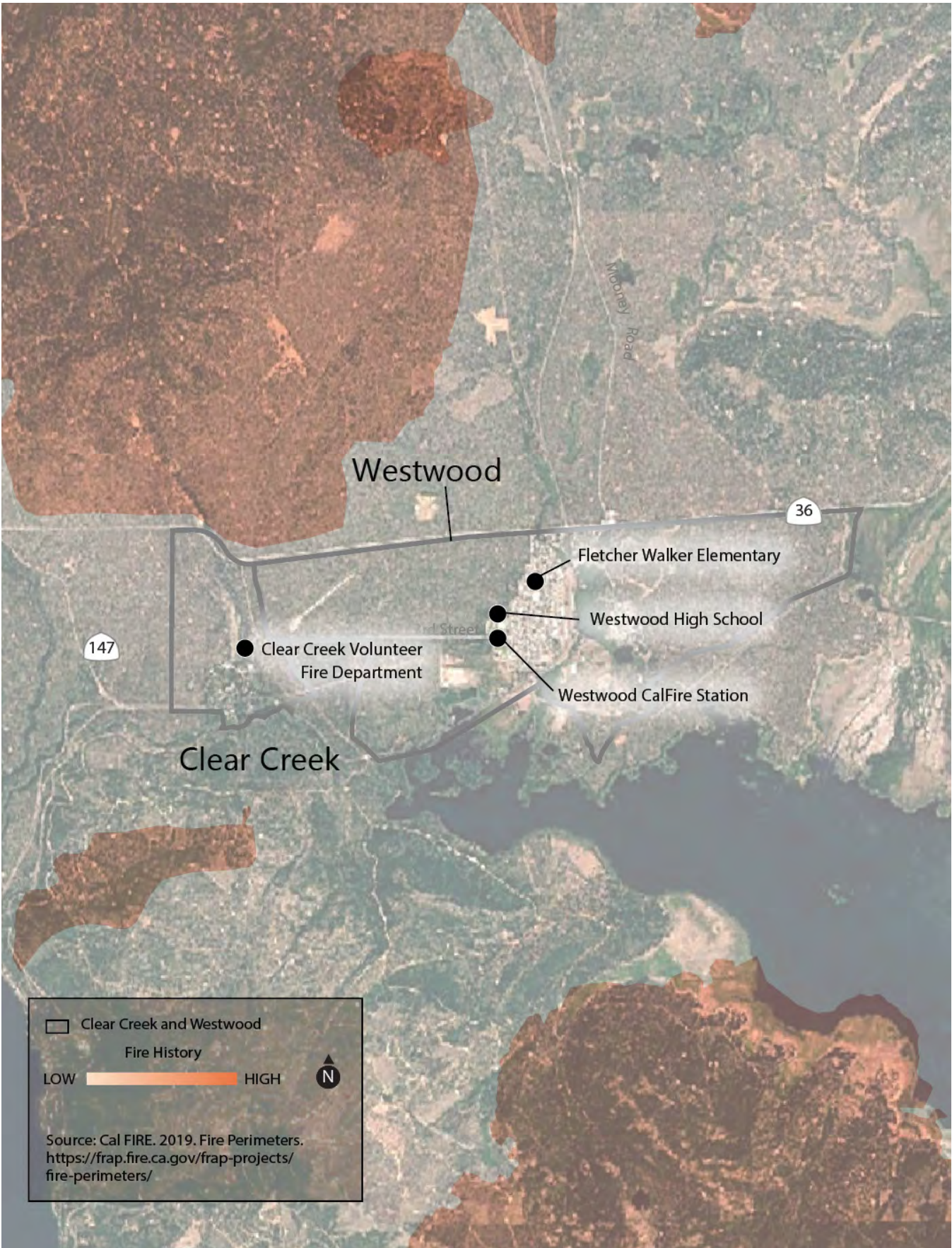


Figure 2-7. Wildfire Hazard Severity Zones in Clear Creek and Westwood





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.<sup>11</sup> 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 <sup>1</sup>	25.7%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English Speaking Households <sup>2</sup>	0.0%	0.8%	Wildfire; Flooding, Earthquakes
Renters <sup>3</sup>	12.6%*	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	16.7%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	1.3%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> Percent of total population under 5 years.

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

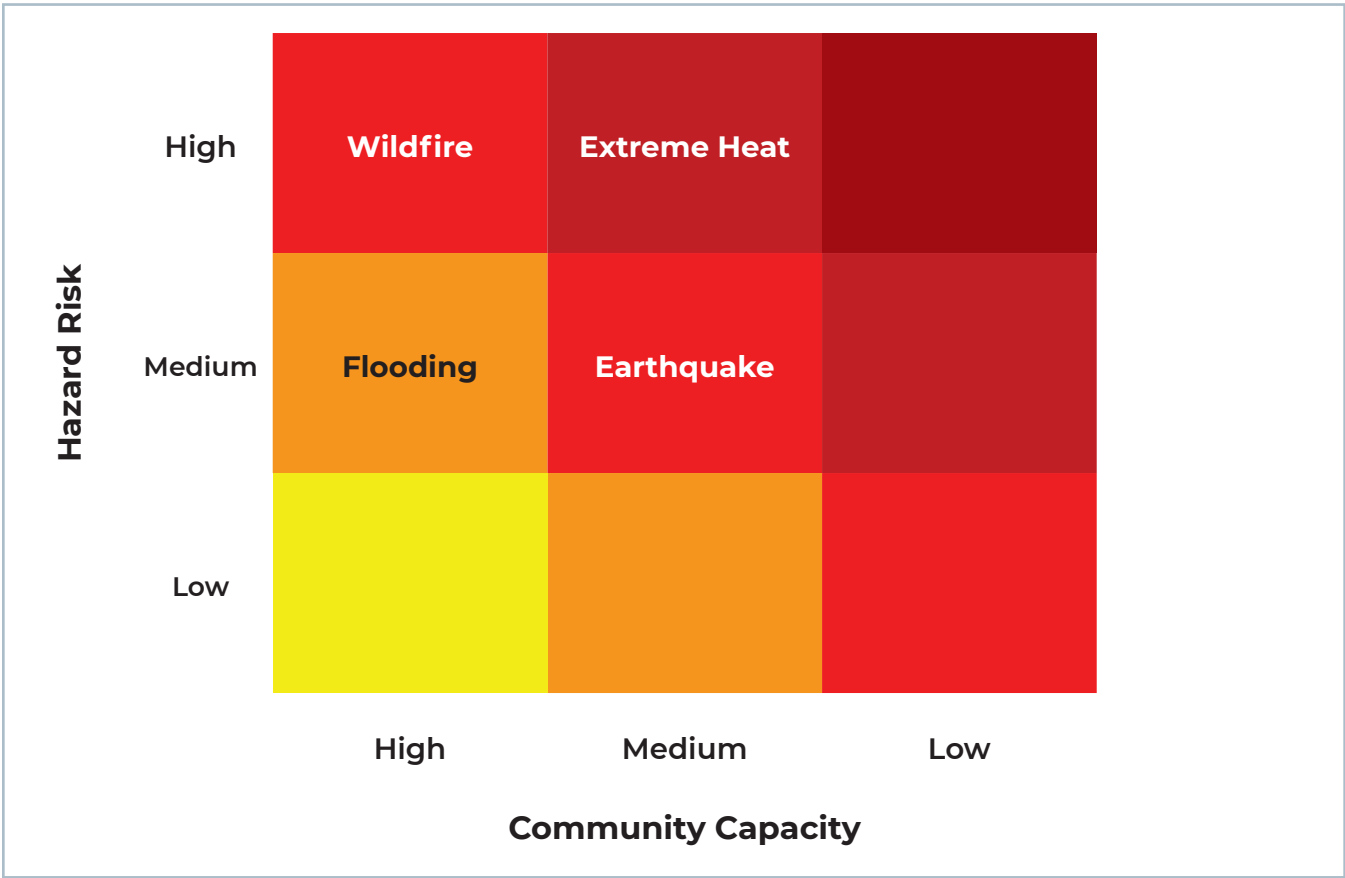
## EVACUATION ROUTES

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.<sup>12</sup> 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.

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12 Cal-Adapt 2020.

Figure 2-10. Wildfire Hazard Severity Zones in Doyle

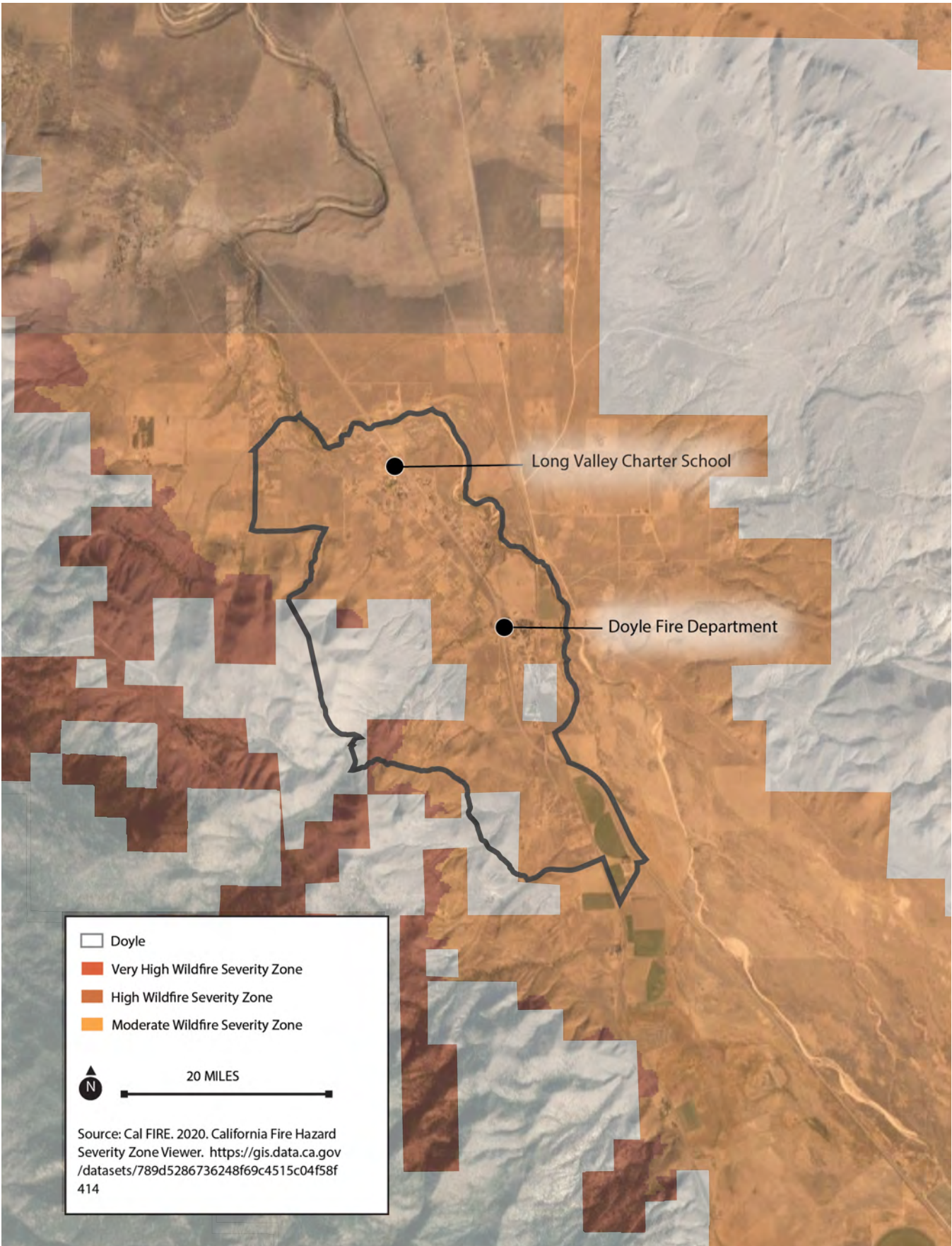
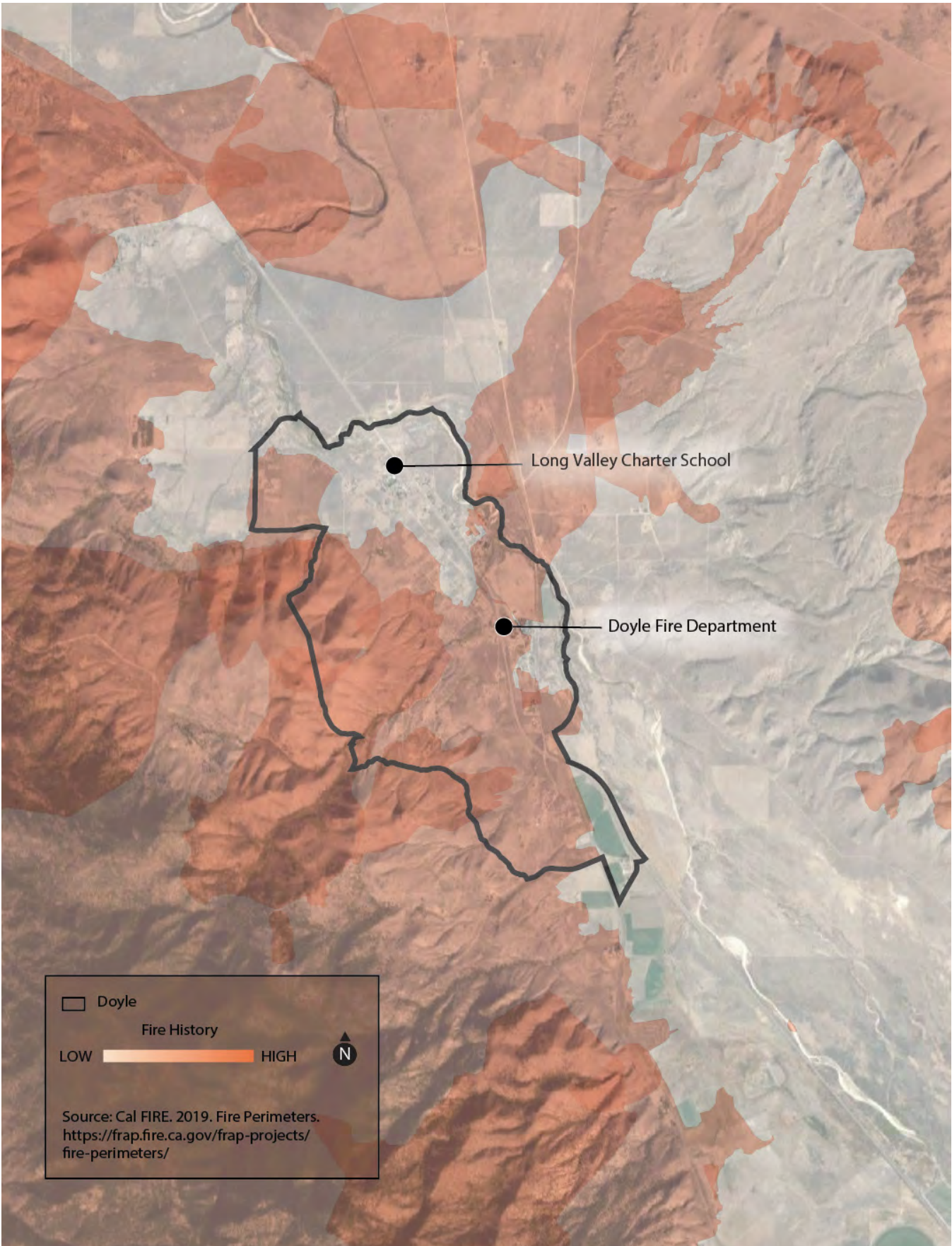




Figure 2-11. Historic Wildfires in Doyle



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).<sup>13</sup> 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 <sup>1</sup>	21.2%	27.0%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English Speaking Households <sup>2</sup>	0.0%	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	100%	46.2%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	7.8%	6.9%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	1.2%	6.3%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

### Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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

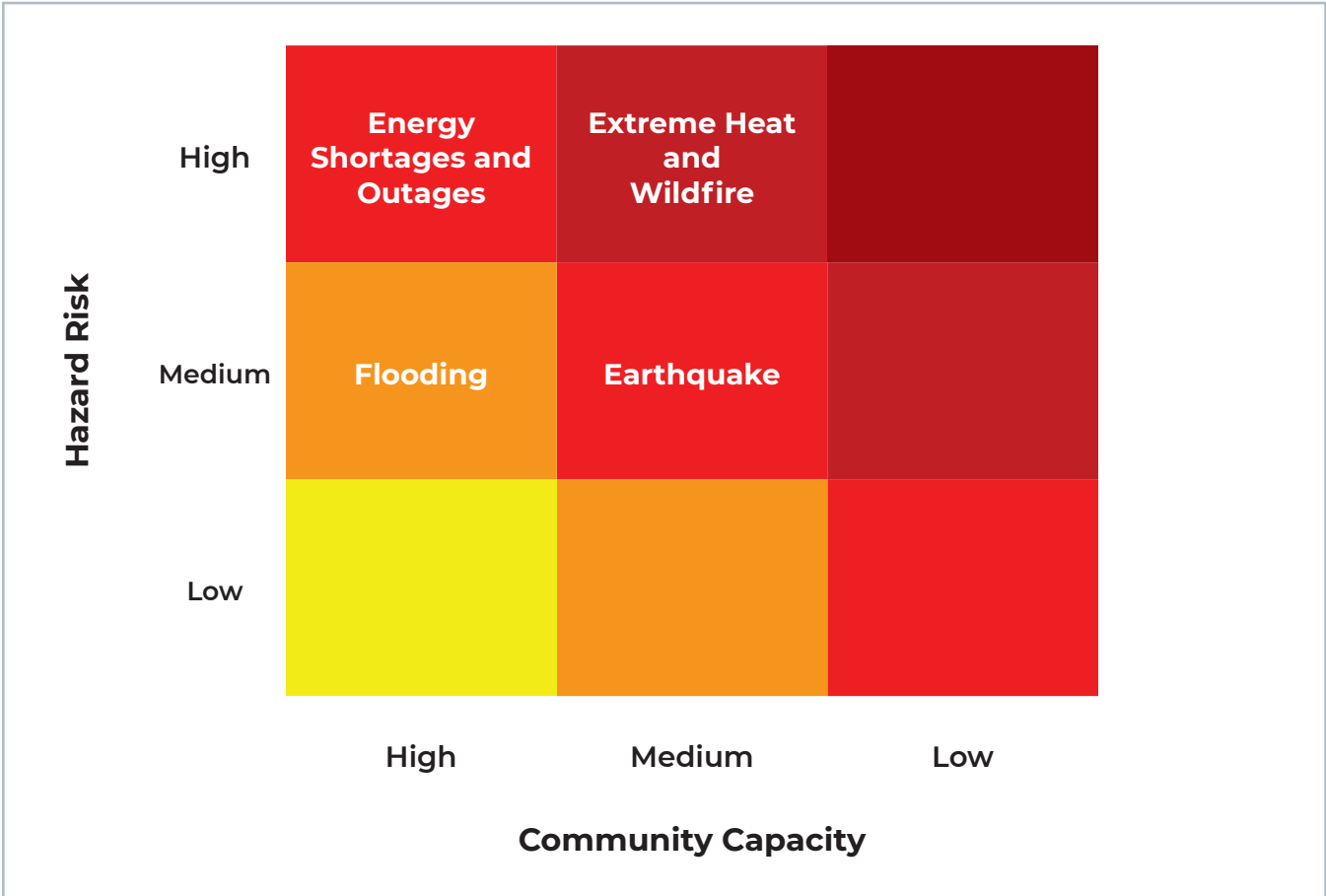
## EVACUATION ROUTES

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.<sup>14</sup> Historically, heat waves lasted 2.6 days and are projected to increase to 8.2 days between 2020 and 2050.<sup>15</sup> 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.<sup>16</sup>

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.<sup>17</sup> Herlong and Patton Village are not certified Firewise Communities at this time.<sup>18</sup> Herlong Public Utility District's fire department provides fire protection for Herlong and Patton Village.

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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



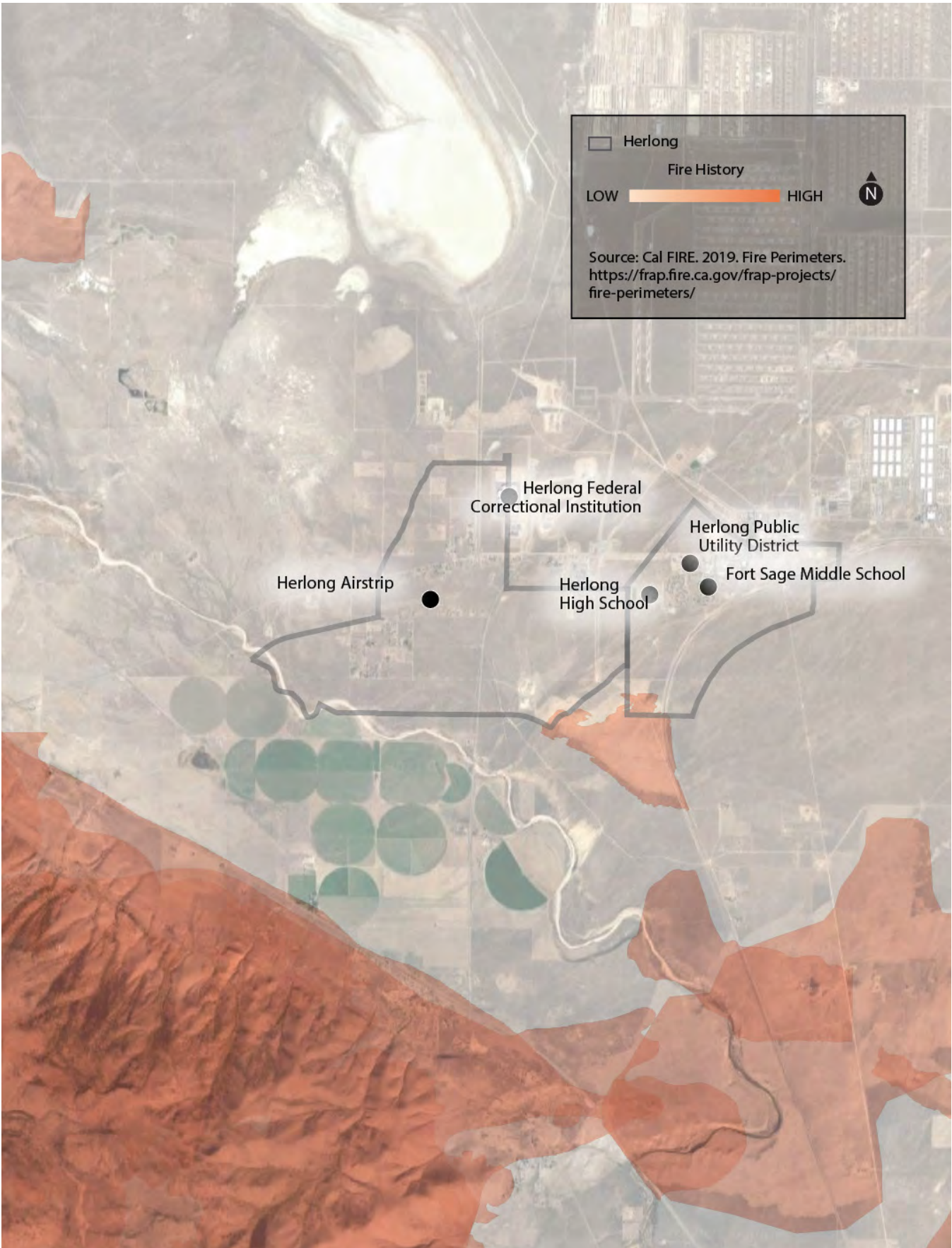


Figure 2-14. Wildfire Hazard Severity Zones in Herlong





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.<sup>19</sup> 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 <sup>1</sup>	13.6%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English Speaking Households <sup>2</sup>	0.5%	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	36.6%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	5.1%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	5.9%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> Percent of total population under 5 years.

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

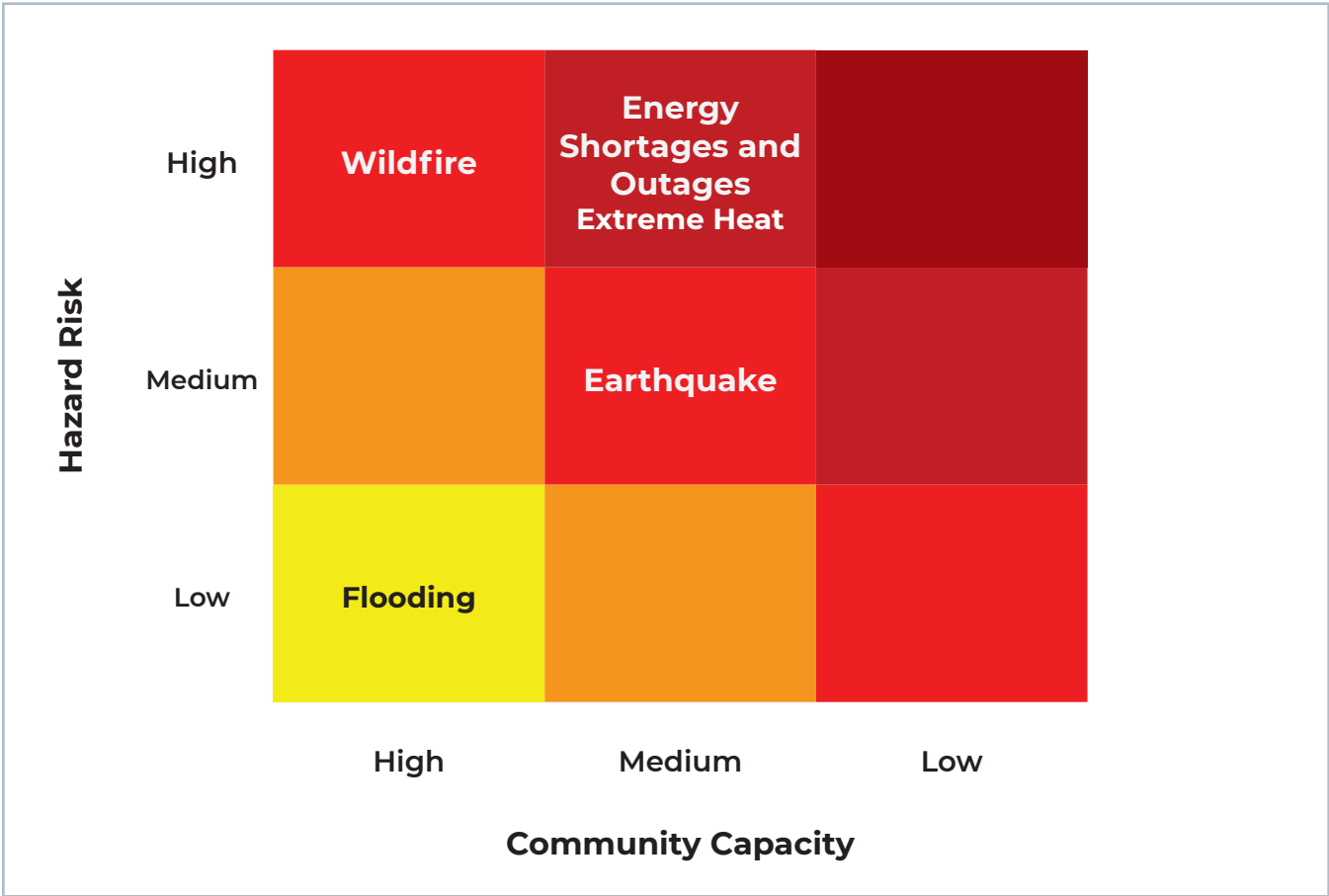
## EVACUATION ROUTES

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.<sup>20</sup> Historically, heat waves lasted 2.6 days and are projected to increase to 6.9 days between 2020 and 2050.<sup>21</sup> 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.<sup>22</sup>

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.<sup>23</sup> Janesville is considered a certified Firewise Community.<sup>24</sup>

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<sup>20</sup> Cal-Adapt 2021.

<sup>21</sup> Cal-Adapt 2021.

<sup>22</sup> EPA 2019.

<sup>23</sup> 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>.

<sup>24</sup> NFPA 2021.

Figure 2-17. Wildfire Hazard Severity Zones in Janesville

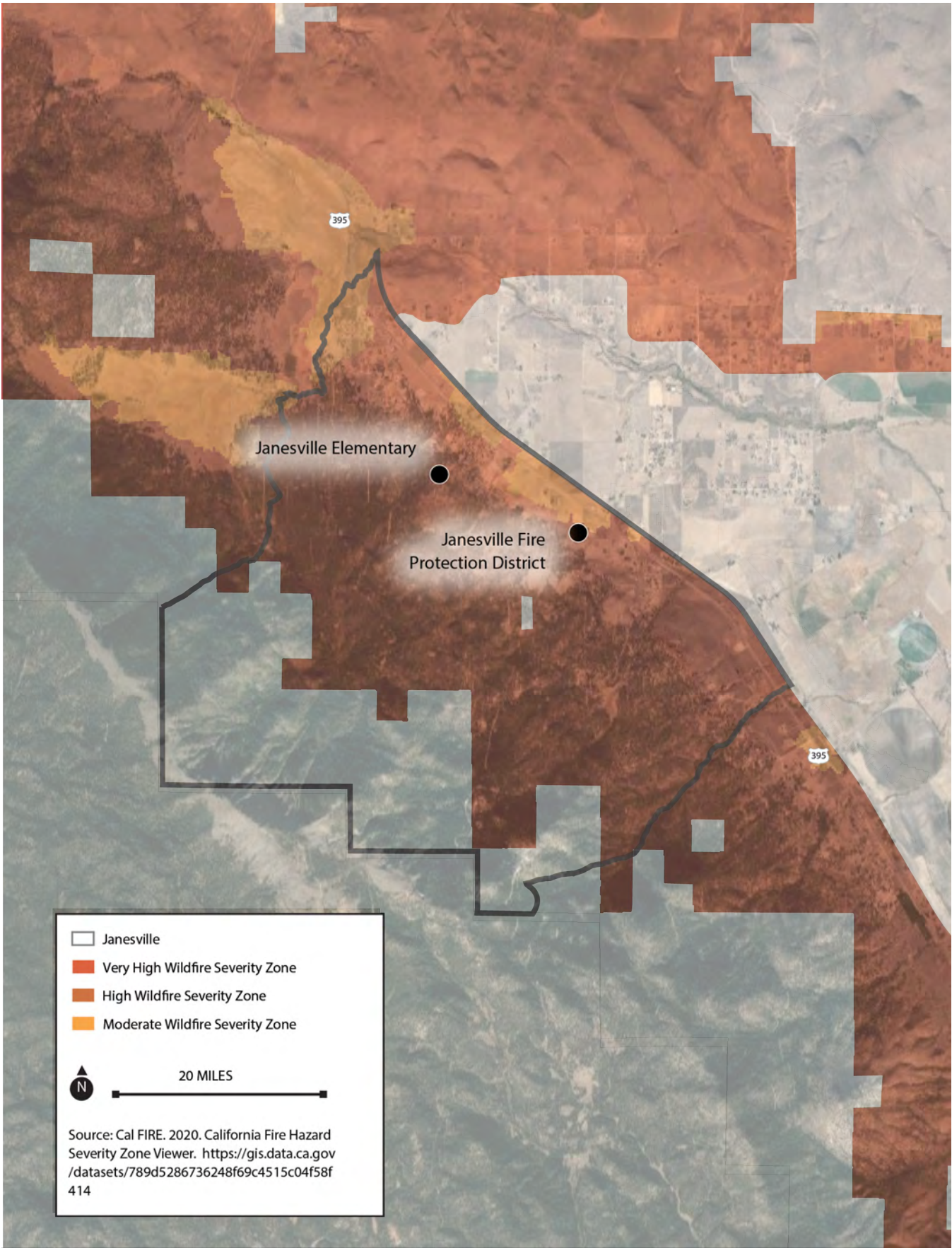
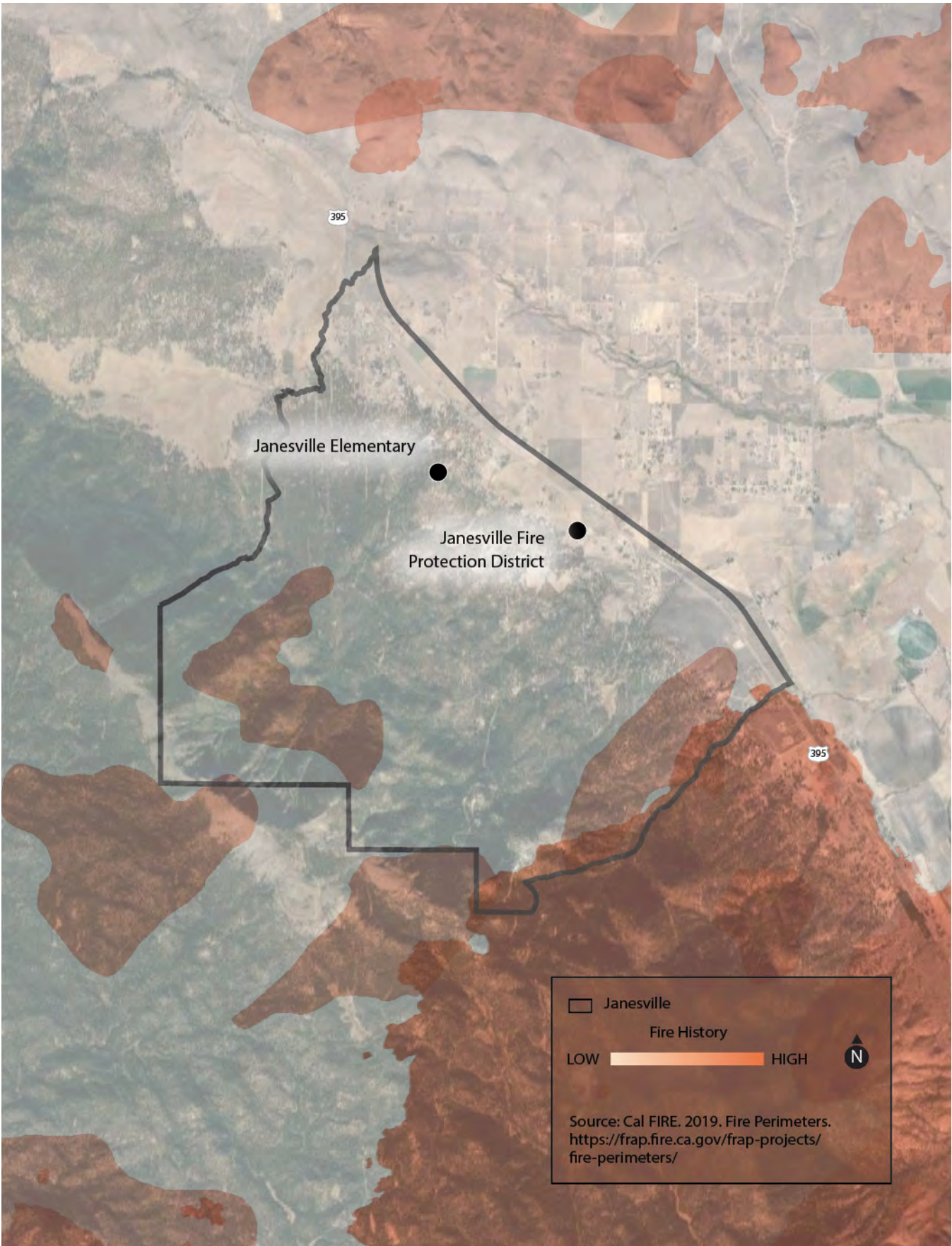




Figure 2-18. Historic Wildfires in Janesville



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.

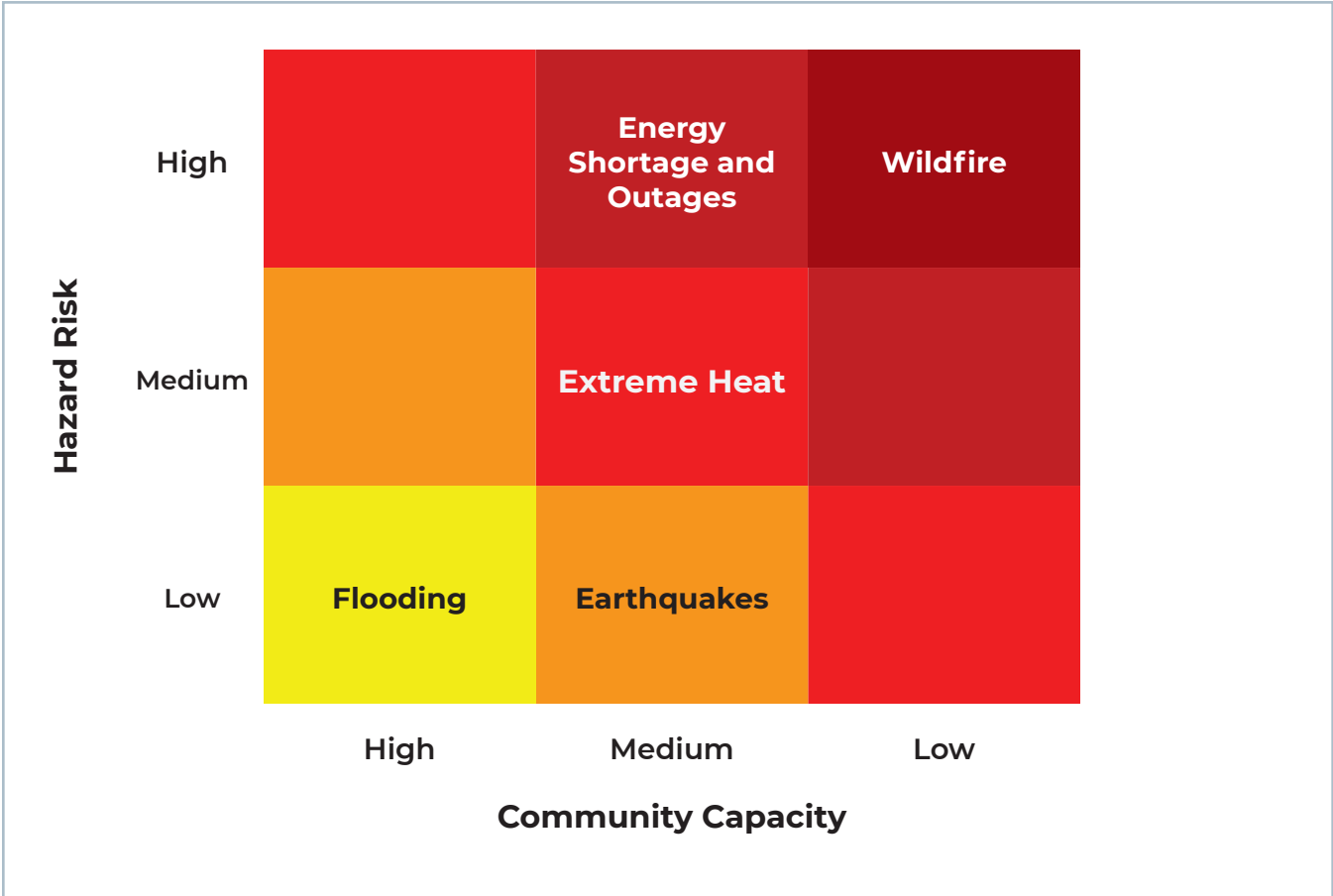
EVACUATION ROUTES

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.<sup>25</sup> 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.<sup>26</sup> 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 <sup>1</sup>	10.7%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Non-English-Speaking Households <sup>2</sup>	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	10.7%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	17.3%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	9.3%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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

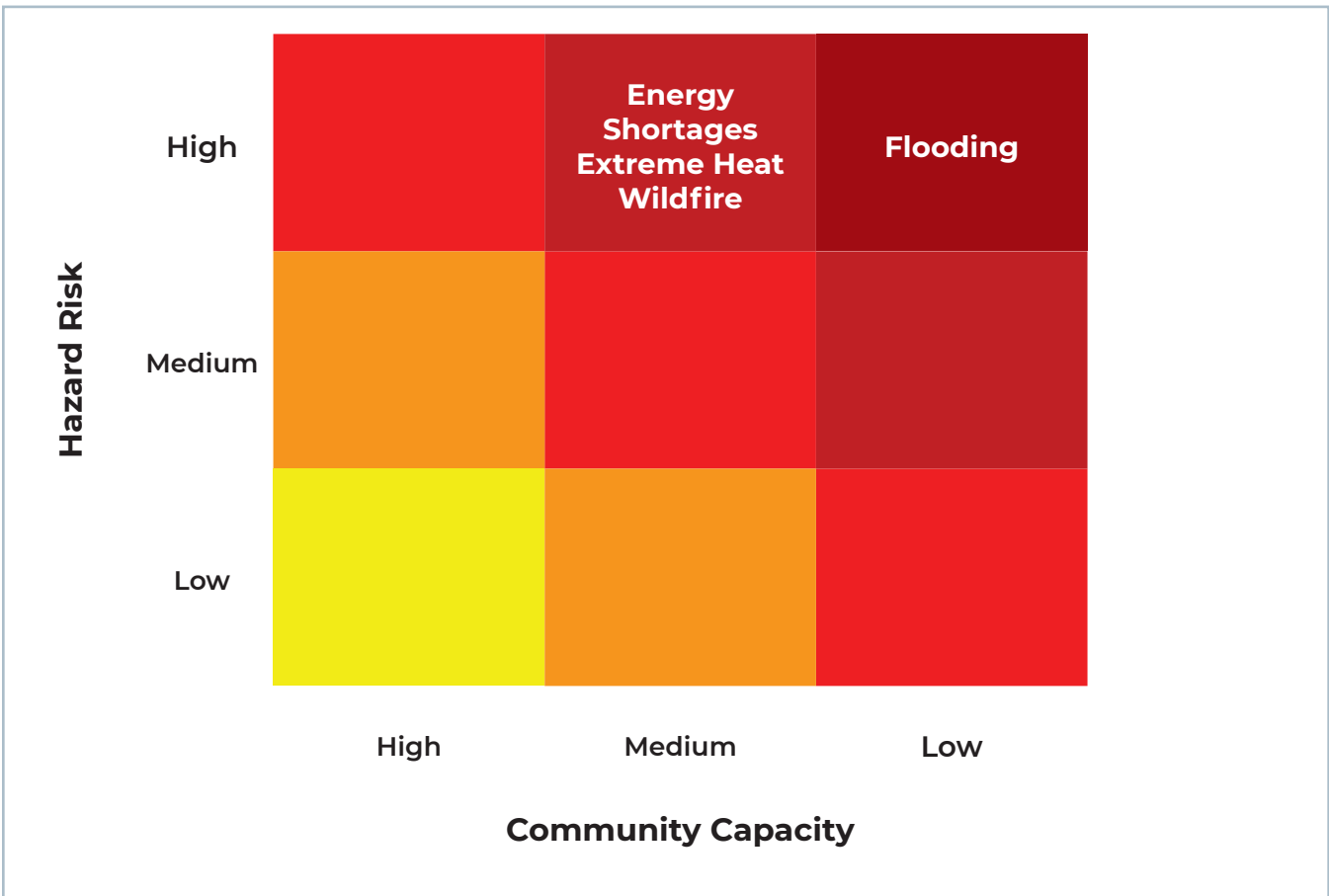
Litchfield has multiple routes for potential evacuations. Each would occur by traveling on A27 northwest or to the north or southwest onto U.S. 395. U.S. 395 allows for evacuation to the east or west. Eastbound U.S. 395 provides addition evacuation to the north. Evacuation to the east and west would 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.

<sup>26</sup> 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.<sup>27</sup> 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

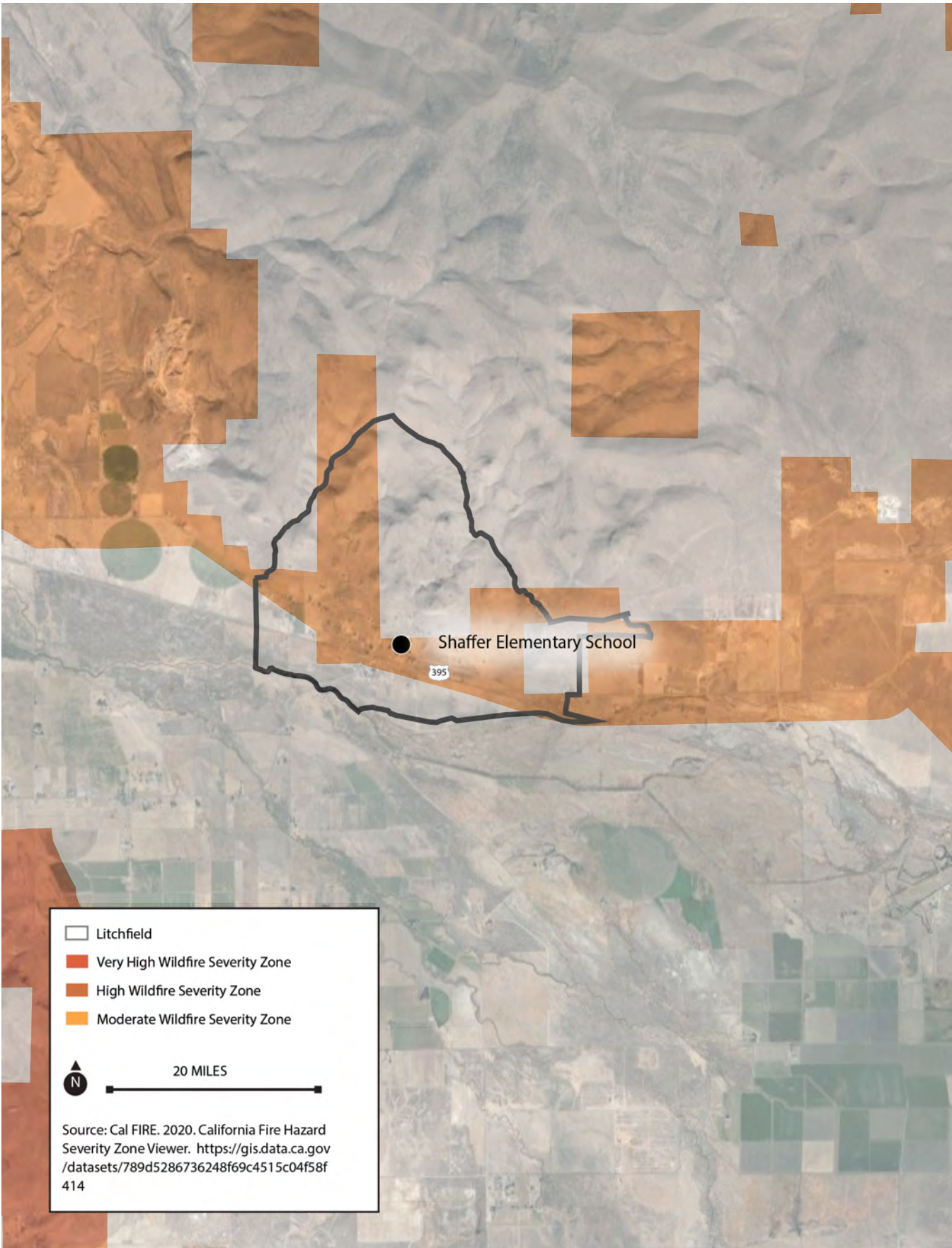
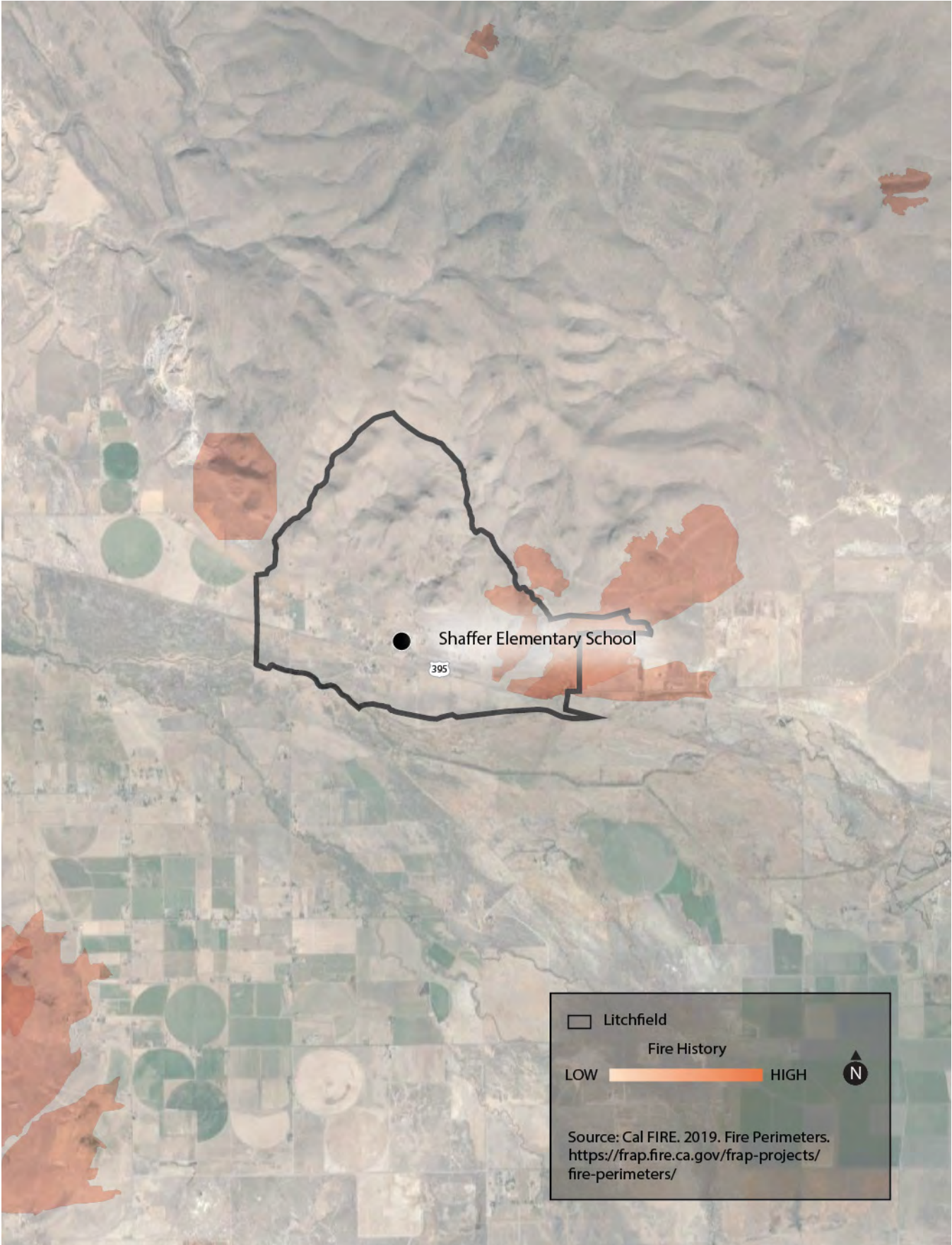




Figure 2-22. Historic Wildfires in Litchfield



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.<sup>28</sup> 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 Community Services District (CSD) Fire Department, as shown in **Table 2-21**. The Little Valley CSD 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 CSD Fire Department	Wildfire, Energy Shortages
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.<sup>29</sup> 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 <sup>1</sup>	46.2%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English-Speaking Households <sup>2</sup>	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	53.8%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	0.0%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	0.0%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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

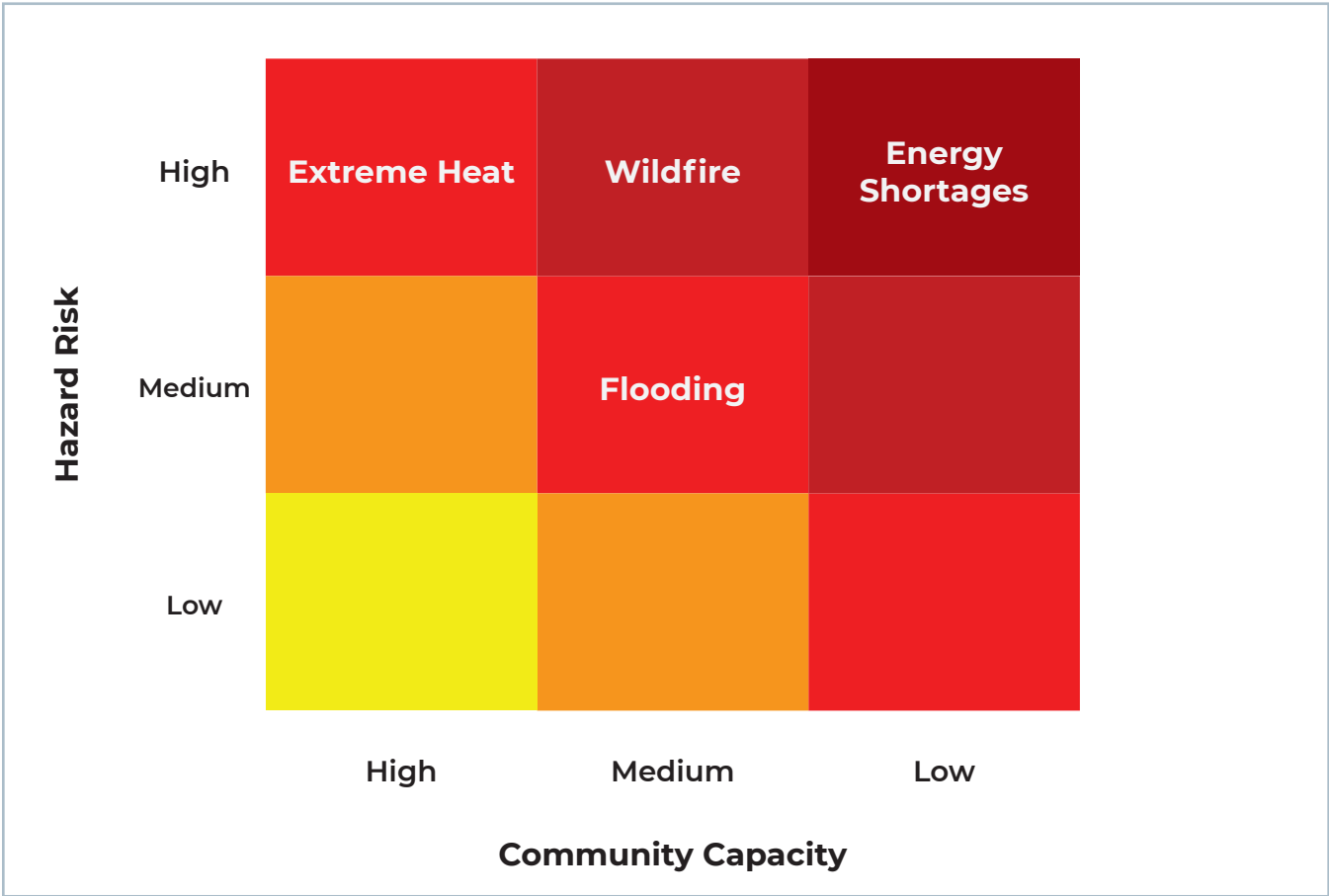
Evacuations from Little Valley can evacuate northbound on Little Valley Road (Forest Route 35N01), westbound through Loomis Cabin Road, and southbound through Black Gulch Road and Little Valley Road (Forest Route 35N05). Evacuations to the north and east go through moderate fire hazard severity zones,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

<sup>29</sup> 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.

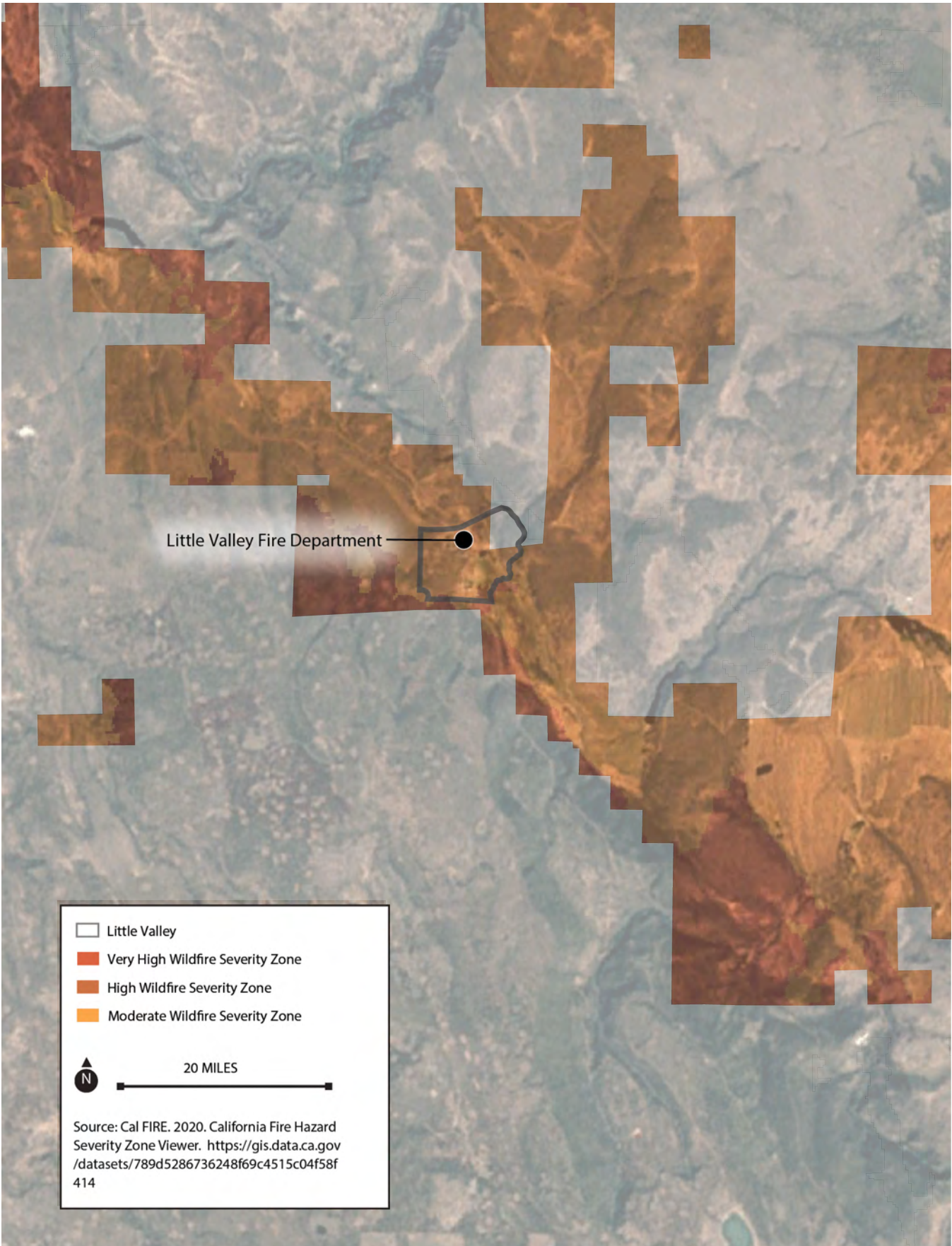
**EXTREME HEAT**

Historically, Little Valley had 4 extreme heat days a year and is projected to experience 6.9 extreme heat days a year by 2050.<sup>30</sup> 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 CSD’s 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.

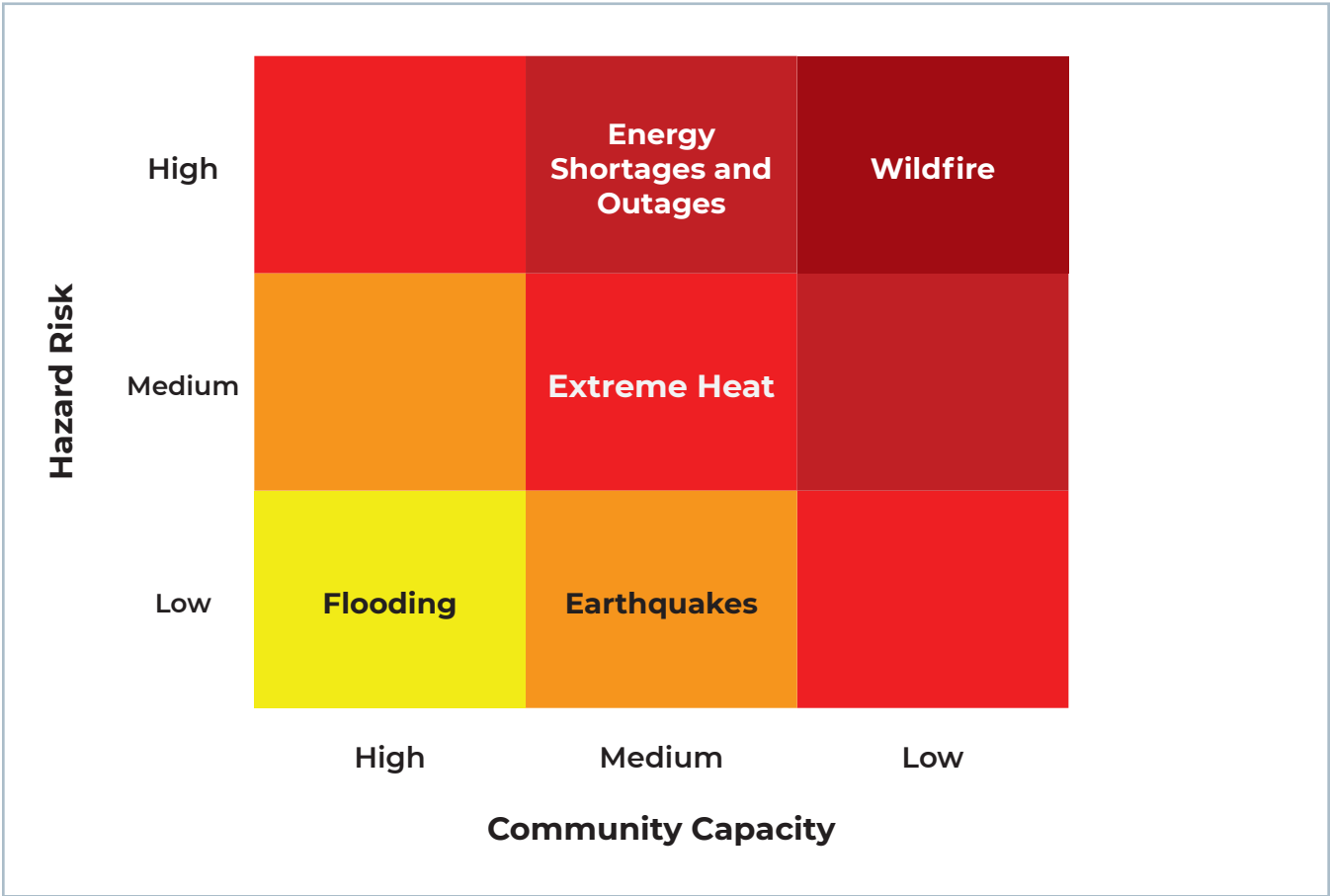
EVACUATION ROUTES

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.<sup>31</sup> 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.<sup>32</sup> 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 <sup>1</sup>	0.0%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English-Speaking Households <sup>2</sup>	0.0%	0.8%	Wildfire, Energy Shortages
Renters <sup>3</sup>	0.0%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	0.0%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	18.9%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> Percent of total population under 5 years.

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

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



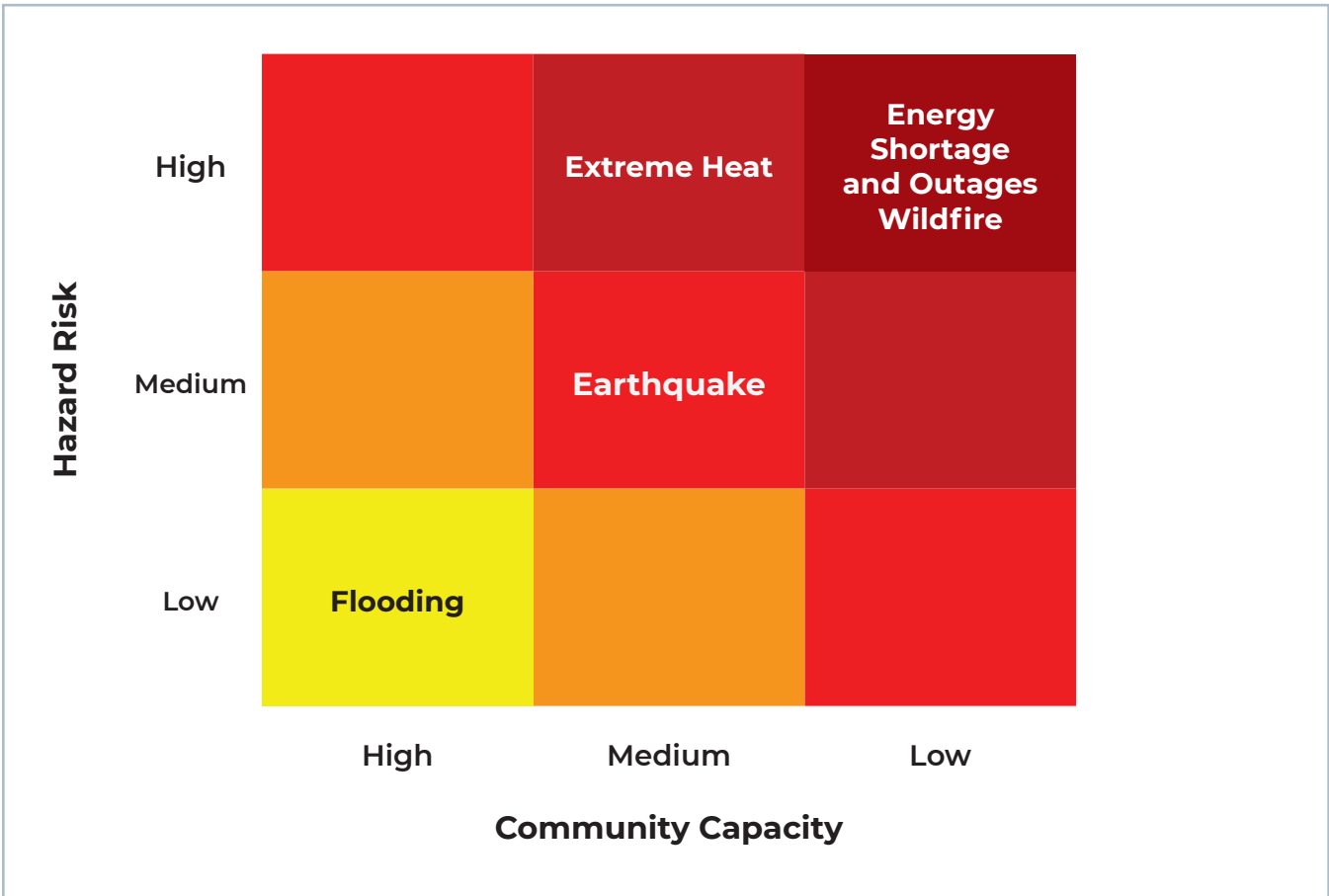
EVACUATION ROUTES

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.<sup>33</sup> 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.

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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.<sup>34</sup> 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

There are two critical assets in Nubieber, including the railroad spur and 60 kV transmission line, as shown in **Table 2-28**. The railroad spur is located in a FEMA flood zone, and the 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	Railroad Spur	Flooding
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 <sup>1</sup>	11.4%	18.4%	Flooding, Wildfire, Earthquakes, Energy Shortages and Outages, Extreme Cold and Snow
Limited English Speaking Households <sup>2</sup>	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	18.8%	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>4</sup>	25.0%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>5</sup>	0.0%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

## Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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. A portion of Kramer Road and 4 Corners Road has been washed out and would require additional maintenance to be an adequate alternate route. 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

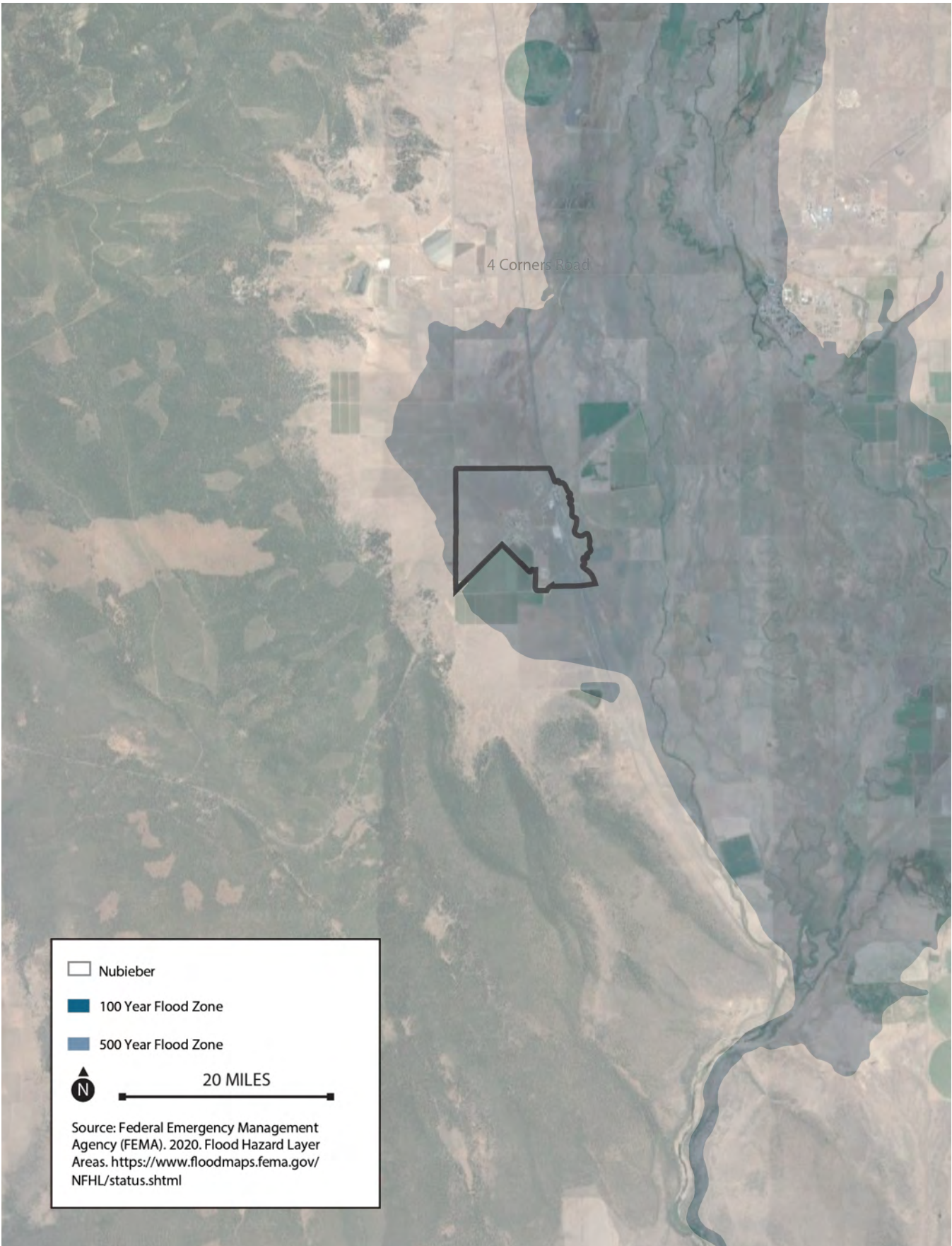
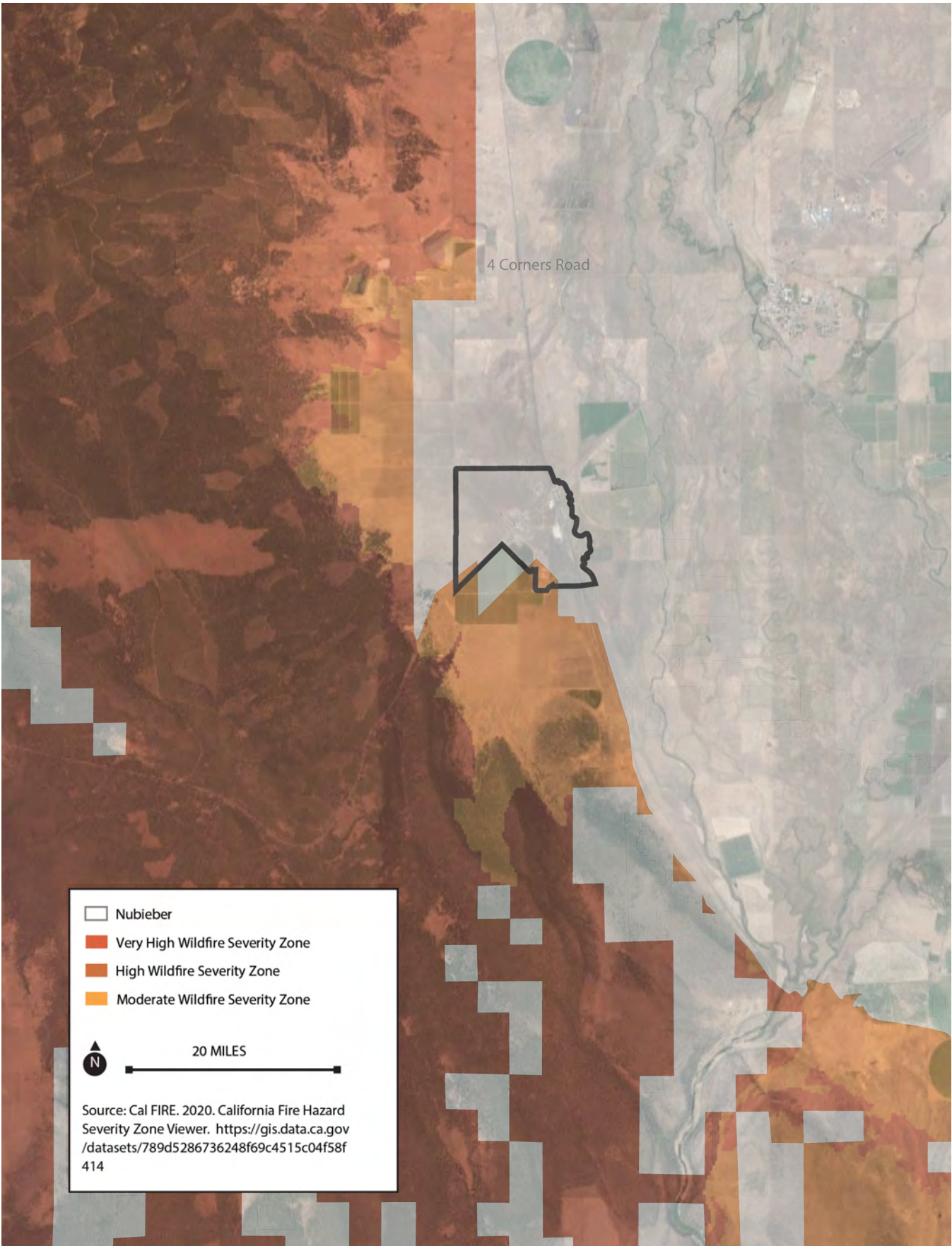


Figure 2-29. Wildfire Hazard Severity Zones in Nubieber

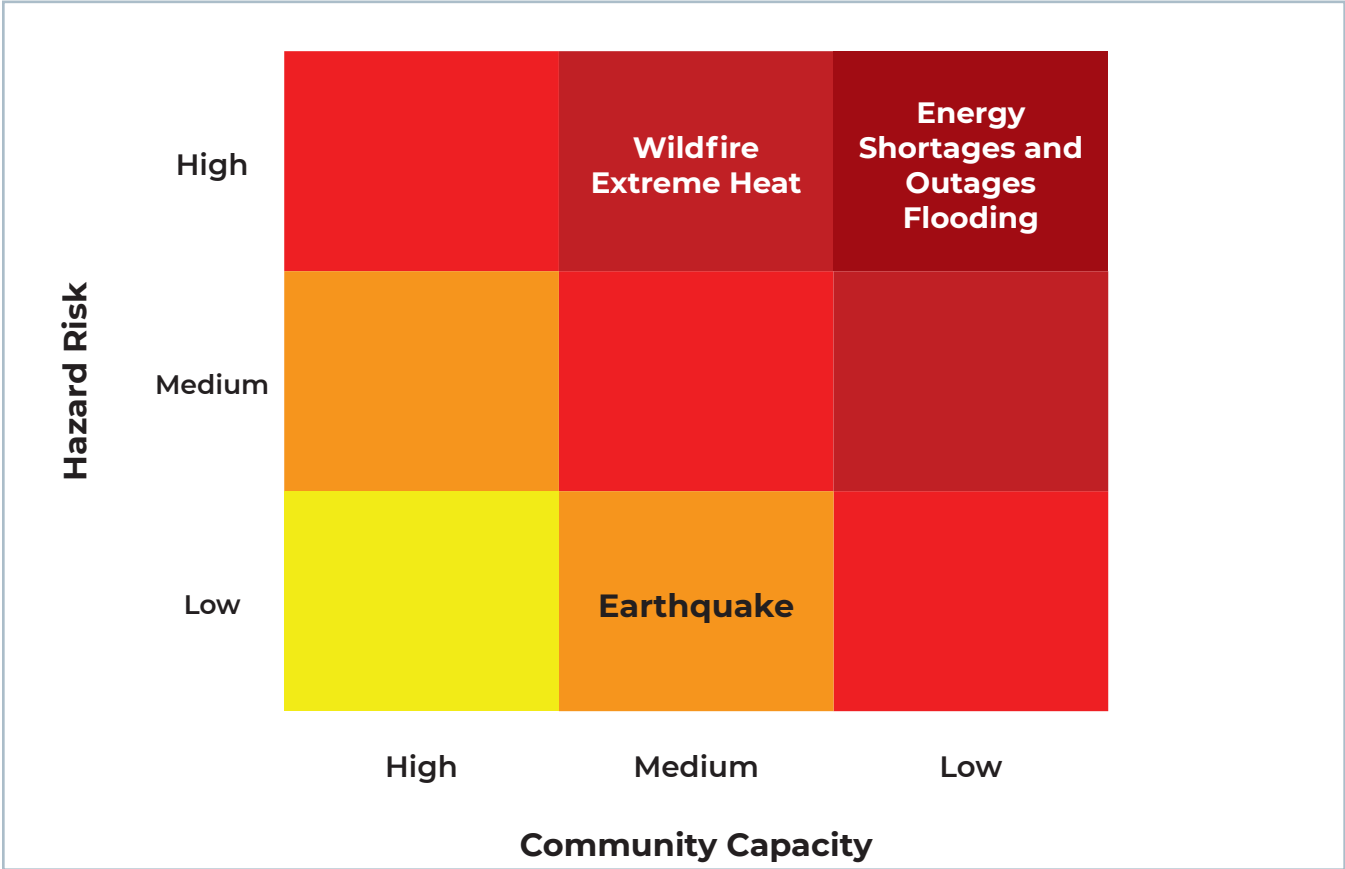




Summary of Findings

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.<sup>35</sup> Historically, heat waves lasted 2.7 days and are projected to increase to 7.4 days between 2020 and 2050.<sup>36</sup> 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 and the railroad spur. 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.<sup>37</sup> 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's land uses are 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.<sup>38</sup>

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.<sup>39</sup> Nubieber is not considered a certified Firewise Community at this time.

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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](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.<sup>40</sup> 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 Services 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.<sup>41</sup> 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 <sup>1</sup>	39.8%	18.4%	Flooding, Wildfire, Seismic Hazards, Energy Shortages and Outages, Extreme Cold and Snow
Limited English-Speaking Households <sup>2</sup>	0.0%	0.8%	Flooding, Wildfire, Earthquakes
Renters <sup>3</sup>	10.5% <sup>4</sup>	32.4%	Flooding, Wildfire, Earthquakes
Older Adults Living Alone <sup>5</sup>	44.7%	12.9%	Flooding, Wildfire, Earthquakes, Extreme Heat, Energy Shortages and Outages, Extreme Cold and Snow
Young Children <sup>6</sup>	0.0%	4.6%	Extreme Heat, Wildfire (smoke), Extreme Cold and Snow

Notes:

This data is a best estimate based on Census Bureau survey data. Inaccuracy or underrepresentation is possible.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> Spalding is a vacation community and a large portion of non-residents that are neither owners nor renters are not captured in this data.

<sup>5</sup> 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.

<sup>6</sup> 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

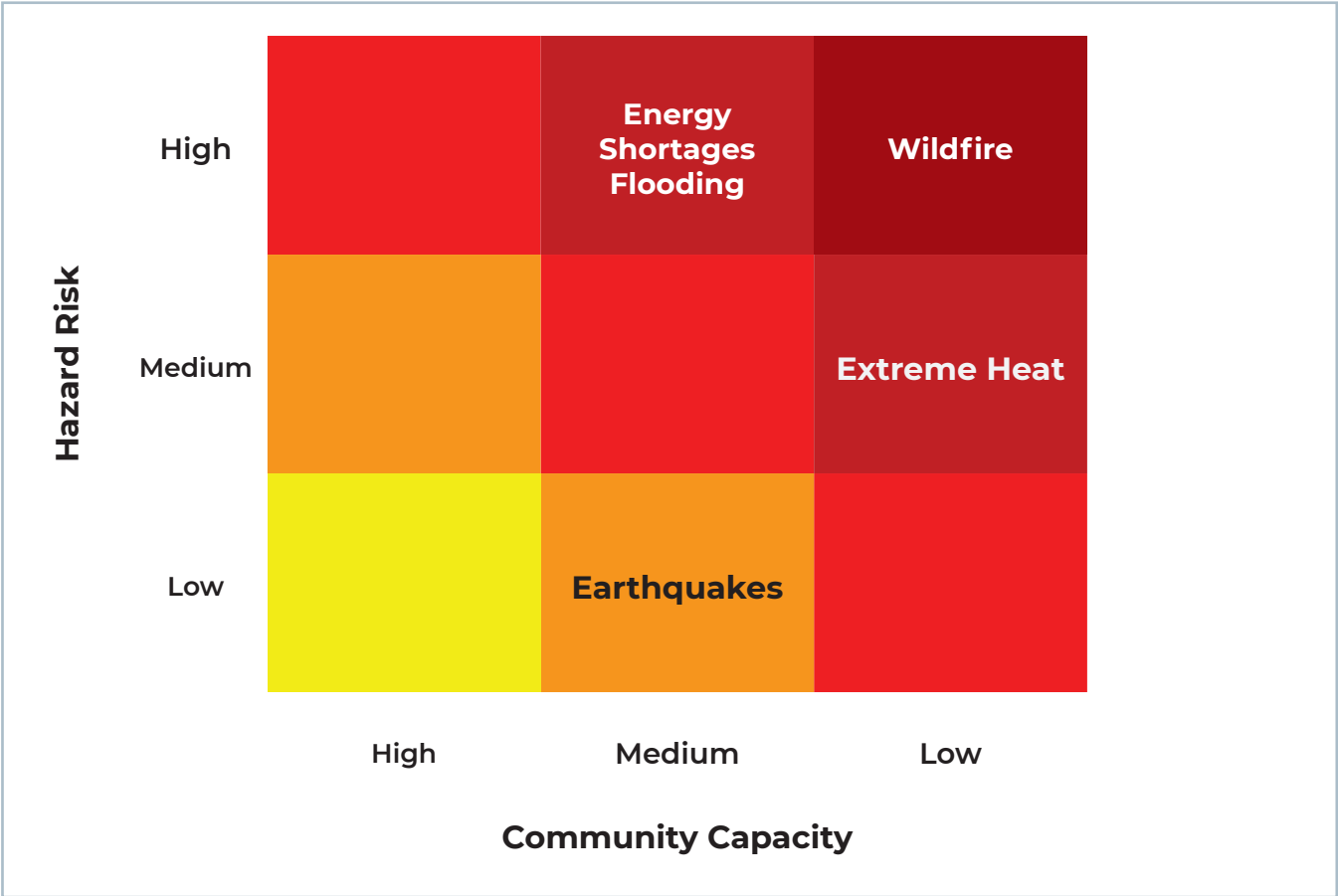
Evacuations from Spalding must evacuate north onto Spalding Road and then to Eagle Lake Road (County Route A1). If either of these roads are closed by fire, evacuation would be severely hindered. Much of Spalding Road is located in a very high fire hazard severity zone, and Eagle Lake Road (County Route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

<sup>41</sup> 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.<sup>42</sup> 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 Services 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.

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42 Cal-Adapt 2020.



Figure 2-33. Wildfire Hazard Severity Zones in Spalding

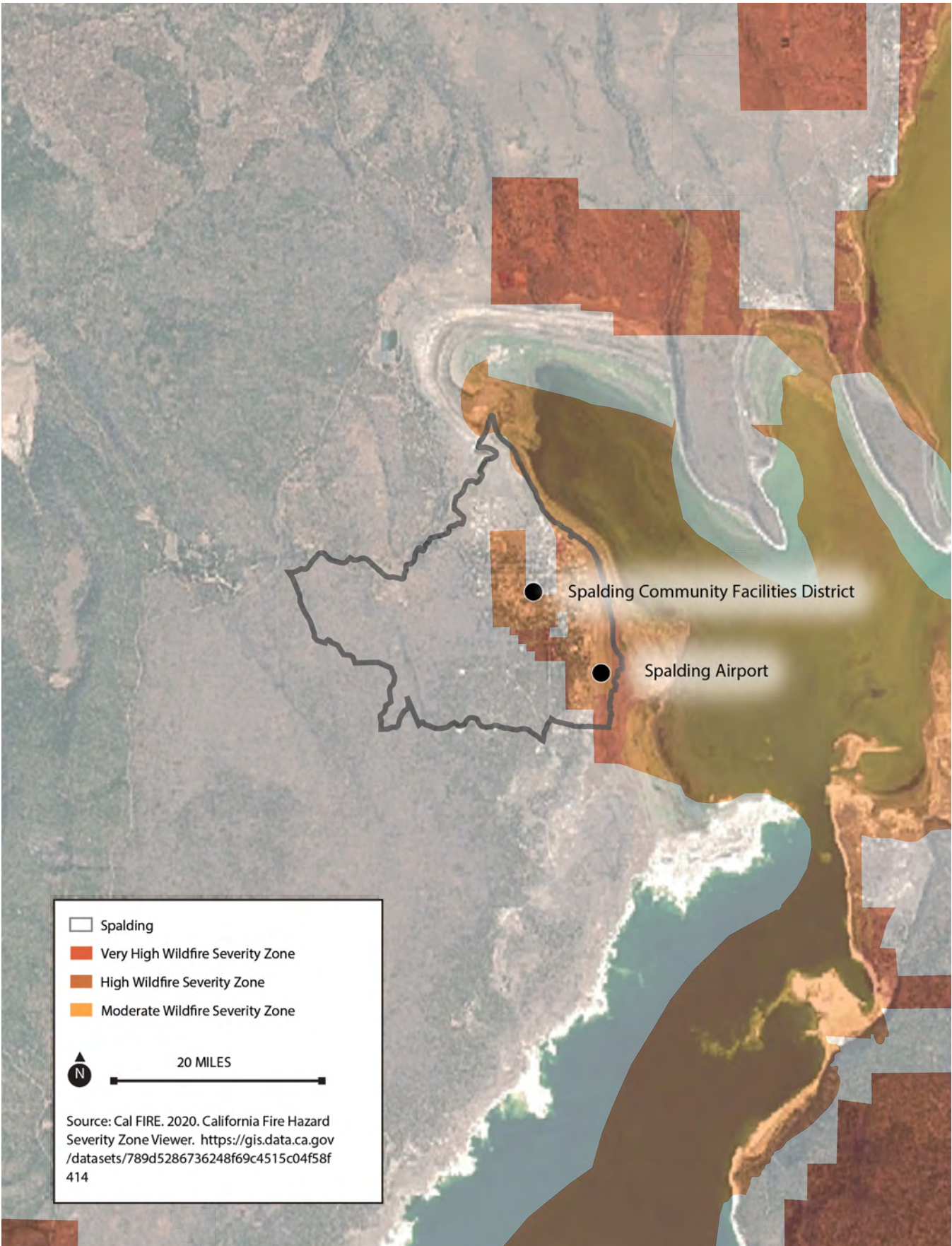
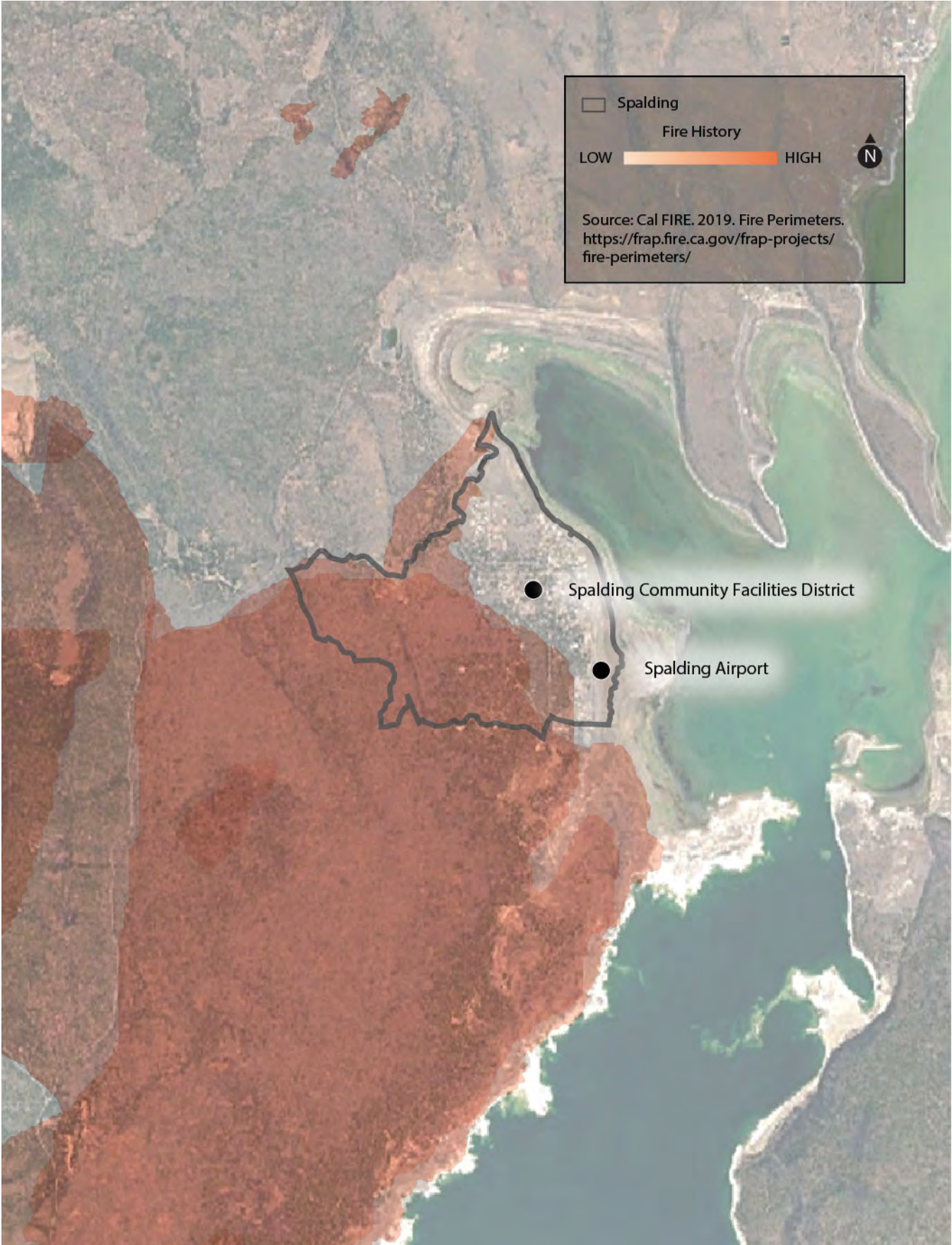




Figure 2-34. Historic Wildfires in Spalding



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.

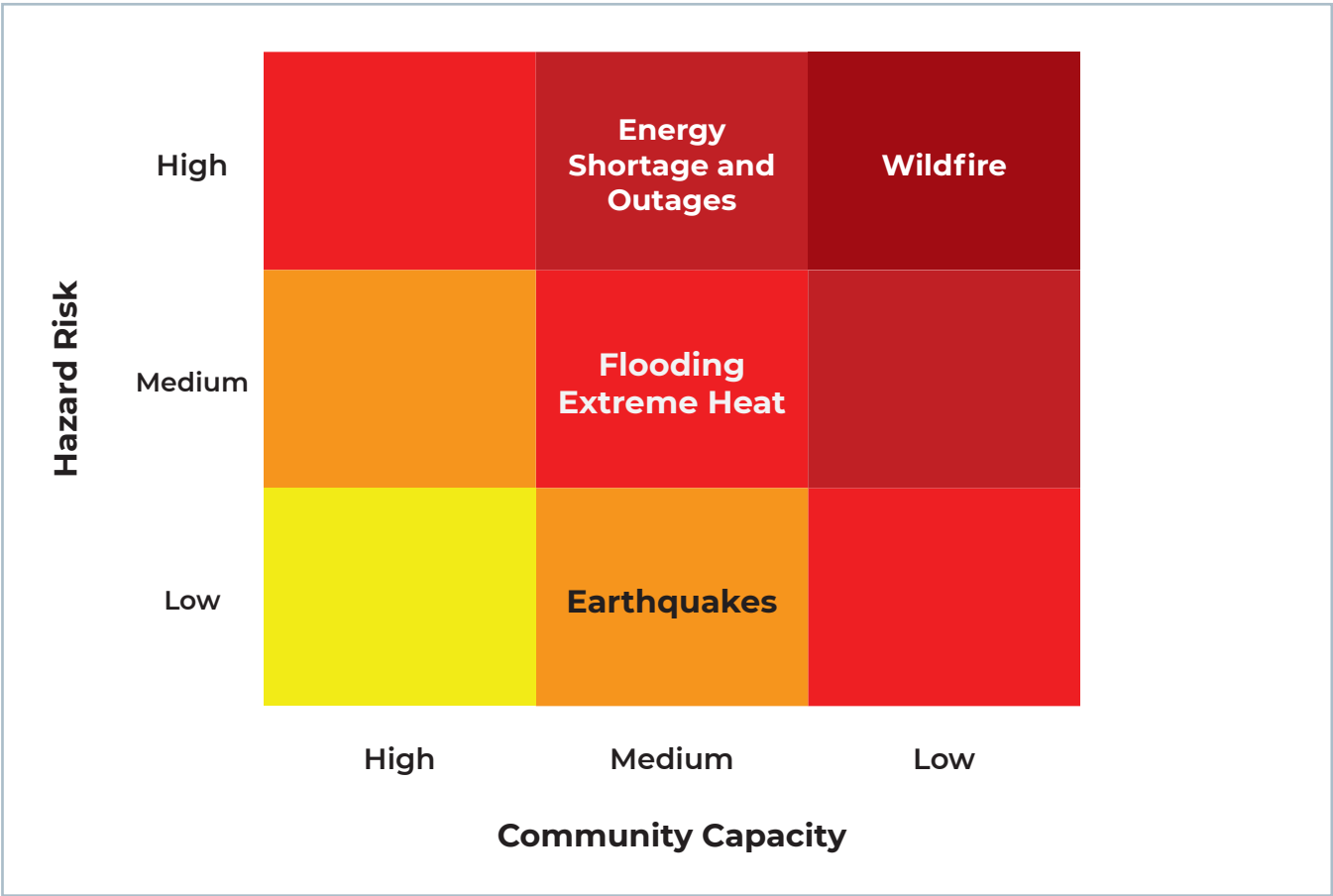
EVACUATION ROUTES

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.<sup>43</sup> 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.<sup>44</sup> In 2000, surface water made up 61% of water supplies and groundwater supplies made up 35% of water supplies.<sup>45</sup> 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.<sup>46</sup>

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](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 Cold and Snow

Extreme cold and snow is a hazard that can impact people, infrastructures, and buildings across the County. This is a hazard that is expected to get less frequent in the future as a result of climate change. Similar to extreme heat, older adults are the most prominent group of people at risk from this hazard in Lassen County. waves are forecasted to increase Countywide.

## 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.<sup>47</sup> 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.

The interplay between wildfires and other hazards should also be noted. When a fire occurs, the burn scar that remains can create dangerous conditions for nearby residents and properties related to flooding and debris flows. To keep residents and local assets safe, it will be important to work with partners on an incident-by-incident basis to understand and respond to these risks as they arise.

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.

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<sup>47</sup> 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

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**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 Agencies or State or Federal Agencies, maintain regular lines of 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 Local Fire Agencies and prescribed burning with open lines of communication, regular meetings with Local Fire Agencies, 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 Local Fire Agencies 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, and improvements to damaged evacuation routes such as the washed out section of Kramer and 4 Corners. 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.

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**HARDEN**

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

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**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.

**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.

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### CJIS COMPLIANCE

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

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**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 and other applicable agencies to reassess fire hazards after major wildfire events. This includes post-wildfire risk assessments downslope from fire burn scars related to flooding and debris flows, as well as adjustments to 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	<b>WATER SUPPLY.</b> 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, Local Fire Agencies	Recommended by CAL FIRE
1.3c	<b>UPGRADE LEVEES.</b> 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	<b>FUEL MANAGEMENT.</b> 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 Agencies 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, Local Fire Agencies, 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	<b>WEED ABATEMENT.</b> Continue to enforce the weed abatement requirements to mitigate the risk of wildfires in the County.	Local Fire Agencies, Planning and Building Services	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	<b>UPGRADE RESILIENCE CENTERS.</b> 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	<b>HAZARD DATABASE.</b> 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, Local Fire Agencies	
2.3a	<b>DRY STORAGE.</b> 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	<b>GIS EFFORTS.</b> 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	<b>EVACUATION ROUTE IMPROVEMENTS.</b> 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, and improvements to damaged evacuation routes such as the washed out section of Kramer and 4 Corners. 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, Local Fire Agencies	Required by SB 99, Recommended by CAL FIRE
2.3e	<b>HARDEN CRITICAL FACILITIES.</b> 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, Local Fire Agencies, Office of Emergency Services	
2.3f	<b>HAZMAT TRAININGS.</b> 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, Local Fire Agencies	
2.3g	<b>RADIO SYSTEM COVERAGE.</b> 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	
<b>SHORT</b>	<b>MEDIUM</b> <b>LONG</b> <b>ONGOING</b>					<i>Lassen County Safety Element</i>   <b>98</b>

## GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
2.3h	<b>COMMUNICATIONS EQUIPMENT PURCHASING.</b> 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, Local Fire Agencies	
2.3i	<b>RADIO REDUNDANCIES.</b> 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	<b>CJIS COMPLIANCE.</b> Pursue CJIS compliance related to encrypted law enforcement communications.	Sheriff's Office	Medium			
2.5b	<b>WARNINGS FOR ALL.</b> 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	<b>VULNERABLE POPULATION REGISTRY.</b> 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, Local Fire Agencies	
3.1a	<b>EOC UPDATES.</b> 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, Local Fire Agencies, Susanville Indian Rancheria, City of Susanville	
3.1b	<b>COMMUNICATION UPGRADES.</b> 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	<b>EOC TRAININGS.</b> 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	<b>EOC BACK UP.</b> 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	<b>CONSISTENCY WITH STATE AND FEDERAL FRAMEWORK.</b> 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, Local Fire Agencies	
3.2c	<b>OPERATIONAL CONTINGENCY PLANS.</b> 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	<b>BACKUP VITAL RECORDS.</b> 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	<b>ACTION 1.1A: DEFENSIBLE DEVELOPMENT.</b> 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	<b>FLOOD REGULATIONS.</b> 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	<b>STRUCTURAL HAZARDS.</b> 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	<b>HAZARDS-SENSITIVE USES.</b> 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	<b>DANGEROUS BUILDINGS.</b> 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	<b>LAND USES IN FAULT ZONES.</b> 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	<b>UPDATE TRANSPORTATION DESIGNS.</b> 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	<b>HARDEN HOMES.</b> 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	<b>HOUSE NUMBERING.</b> 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, Local Fire Agencies	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	<b>EVACUATION AND ACCESS.</b> 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	<b>AIRPORT COMPATIBILITY.</b> 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	<b>FLOODING AREAS.</b> 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	
1.3b	<b>NEW CRITICAL FACILITIES.</b> 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



# GOALS, POLICIES, AND ACTIONS

Action Number	Action Text	Responsible County Department	Timeframe	MHMP	Partners	Requirement or Recommendation
1.5a	<b>FIREWISE PLANTS.</b> 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	<b>EMERGENCY RESPONSE SERVICE.</b> 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	<b>HAZARDOUS MATERIALS FLOW.</b> 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	<b>STANDARD EVACUATION PLAN.</b> 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, Local Fire Agencies, CAL FIRE	
2.4b	<b>LASSEN HAZARD MITIGATION</b> 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, Local Fire Agencies	Recommended by CAL FIRE
2.4d	<b>CAL FIRE COORDINATION.</b> 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	<b>REASSESSMENT OF FIRE HAZARDS.</b> Coordinate with applicable agencies to reassess fire hazards after major wildfire events. This includes post-wildfire risk assessments related to flooding and debris flows, as well as adjustments to fire prevention and suppression needs, as necessary, commensurate for both short- and long-term fire prevention needs.	Office of Emergency Services	Medium		Local Fire Agencies, Planning and Building Services, CAL FIRE, Sheriff's Office. Other Applicable State Agencies	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	<b>SCHOOL SHELTERS.</b> 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	<b>PARTNERSHIPS.</b> 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	<b>COORDINATE WITH HOSPITALS.</b> 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	<b>ANIMAL EVACUATION CENTERS.</b> 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	<b>REGIONAL COMMUNICATION LINKS.</b> 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	<b>TELECOMMUNICATIONS REDUNDANCY.</b> Coordinate with commercial telecommunications providers to create telecommunication infrastructure redundancies and prevent community islanding.	IT Department	Medium		Commercial telecommunications providers	
3.2b	<b>PARTICIPATION IN MUTUAL AID SYSTEMS.</b> 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, Local Fire Agencies	Recommended by CAL FIRE
4.2b	<b>POST-DISASTER RECONSTRUCTION.</b> 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	<b>PERMIT ENGAGEMENT.</b> 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, Local Fire Agencies	Recommended by CAL FIRE
1.6a	<b>PRESCRIBED BURNING.</b> Support Local Fire Agencies and prescribed burning with open lines of communication, regular meetings with Local Fire Agencies, and discussions of the technical assistance available from the County.	Office of Emergency Services	Ongoing		Local Fire Agencies, Planning and Building Services, Bureau of Land Management, National Park Service, US Forest Service, CAL FIRE	Recommended by CAL FIRE
2.2a	<b>HAZARD AND EVACUATION EDUCATION.</b> 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, Local Fire Agencies, Susanville Indian Rancheria, City of Susanville, Business Community	Recommended by CAL FIRE
2.2b	<b>FIRE OUTREACH.</b> Work with CAL FIRE and Local Fire Agencies prior to fire season to utilize partnerships, coordinate outreach events, and leverage County communication and 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, Local Fire Agencies, 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	<b>HOUSEHOLD HAZARDOUS WASTE DISPOSAL.</b> 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	<b>POWER SHUTOFF COORDINATION.</b> 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	<b>HAZARD RESPONSE TRAININGS.</b> 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, Local Fire Agencies	Recommended by CAL FIRE



# DRAFT

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Initial Study/Negative Declaration

## **Lassen County General Plan Safety Element Update**

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**NOVEMBER 2022**

*Prepared for:*

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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.

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## 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.

## 2022 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: <https://www.lassencounty.org/dept/planning-and-building-services/environmental-documents-noticing-and-attachments>

## Community Outreach Events

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 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.

On October 11, 2022, the Safety Element update was brought to the Lassen County Board of Supervisors. The purpose of this event was to solicit feedback from members of the public and elected officials prior to state agency review and public review. The meeting was promoted in local newspapers, and on the County website. The meeting was noticed and open to the public in accordance with the Brown Act. Supervisors and one member of the public provided feedback which has been incorporated into the element.

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## 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.

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Signature

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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
<b>I. AESTHETICS</b> – 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 1.6 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
<b>II. AGRICULTURE AND FORESTRY RESOURCES</b> – 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 and weed abatement. The inclusion of Policy 1.4 and its 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
<b>III. AIR QUALITY</b> – 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"/>
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 PM<sub>10</sub> (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
<b>IV. BIOLOGICAL RESOURCES</b> – 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
<b>V. CULTURAL RESOURCES – Would the project:</b>				
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"/>
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
<b>VI. Energy</b> – 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
<b>VII. GEOLOGY AND SOILS – Would the project:</b>				
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
<b>VIII. GREENHOUSE GAS EMISSIONS – Would the project:</b>				
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
<b>IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:</b>				
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
<b>X. HYDROLOGY AND WATER QUALITY – Would the project:</b>				
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
<b>XI. LAND USE AND PLANNING – Would the project:</b>				
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
<b>XII. MINERAL RESOURCES</b> – 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
<b>XIII. NOISE – Would the project result in:</b>				
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
<b>XIV. POPULATION AND HOUSING – Would the project:</b>				
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
<b>XV. PUBLIC SERVICES</b>				
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
<b>XVI. RECREATION</b>				
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
<b>XVII. TRANSPORTATION</b> – 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
<b>XVIII. TRIBAL CULTURAL RESOURCES</b>				
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
<b>XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:</b>				
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
<b>XX. WILDFIRE</b> – 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
<b>XXI. MANDATORY FINDINGS OF SIGNIFICANCE</b>				
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.

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## 4 References and Preparers

### 4.1 References Cited

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## 4.2 List of Preparers

### Lassen County Planning and Building Services

Gaylon Norwood, Deputy Director  
Nancy McAllister, Senior Planner

### Dudek

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

Figure 1 Project Location



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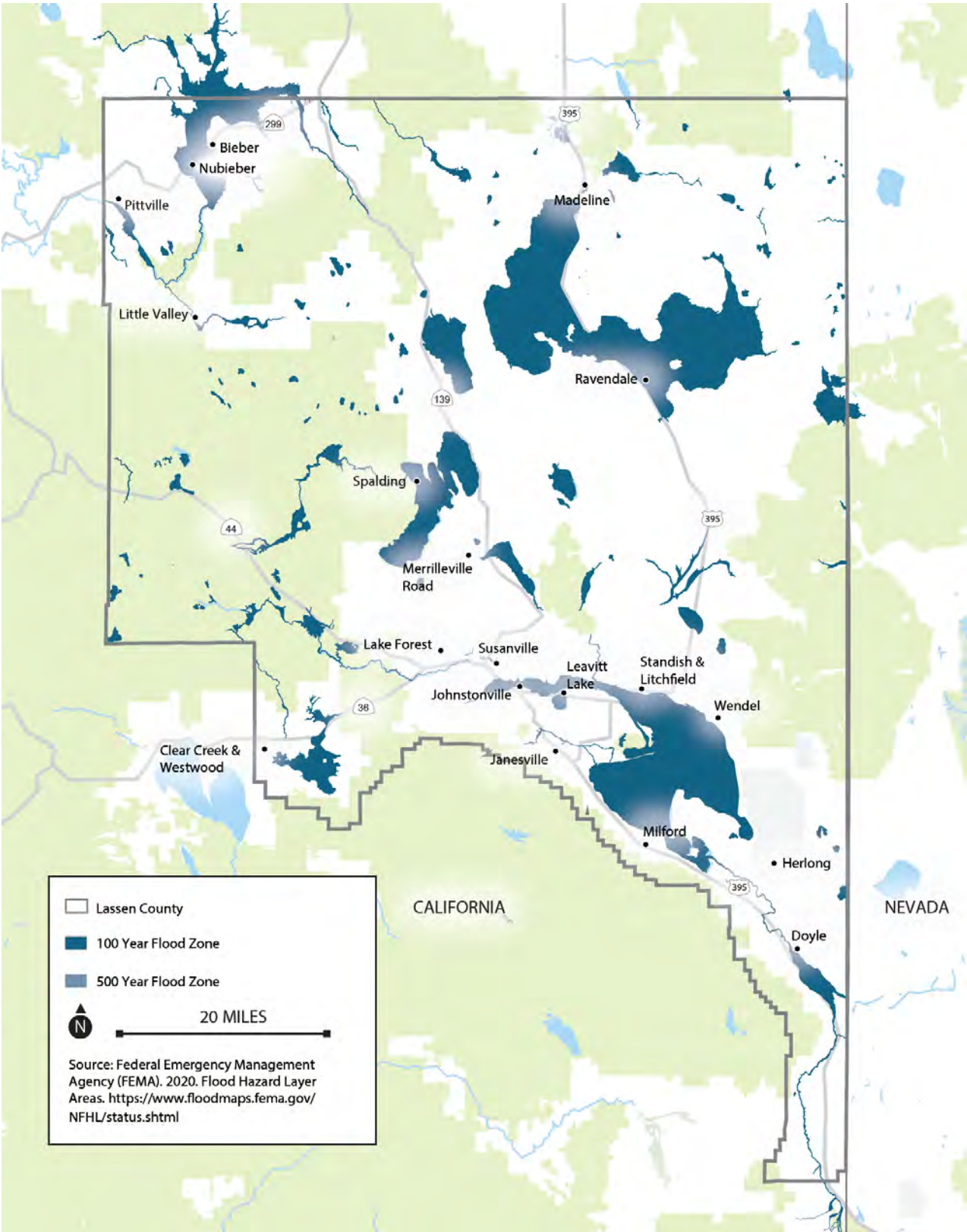


Figure 2 Earthquake Hazards in Lassen County



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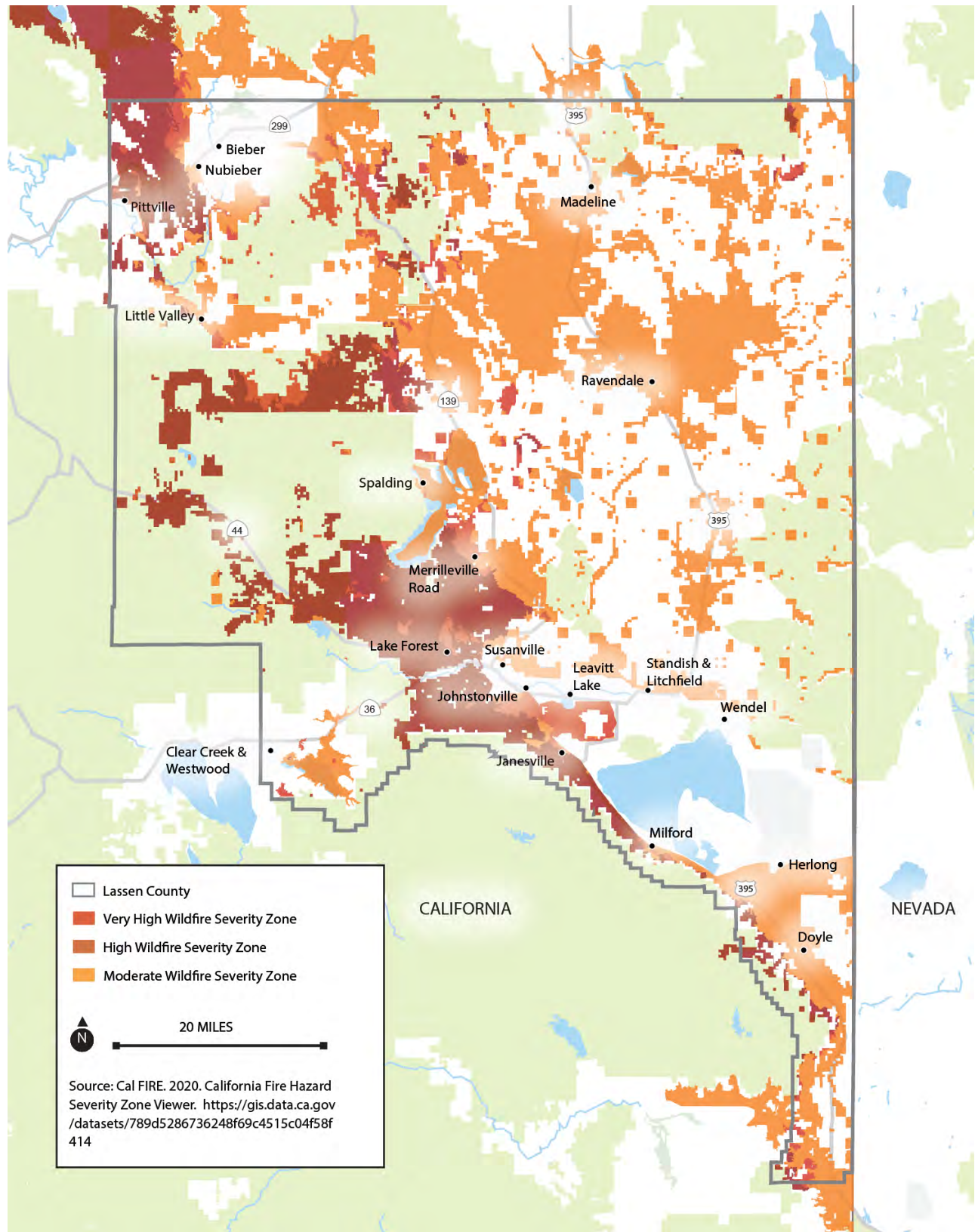
Figure 3 Flood Zones in Lassen County



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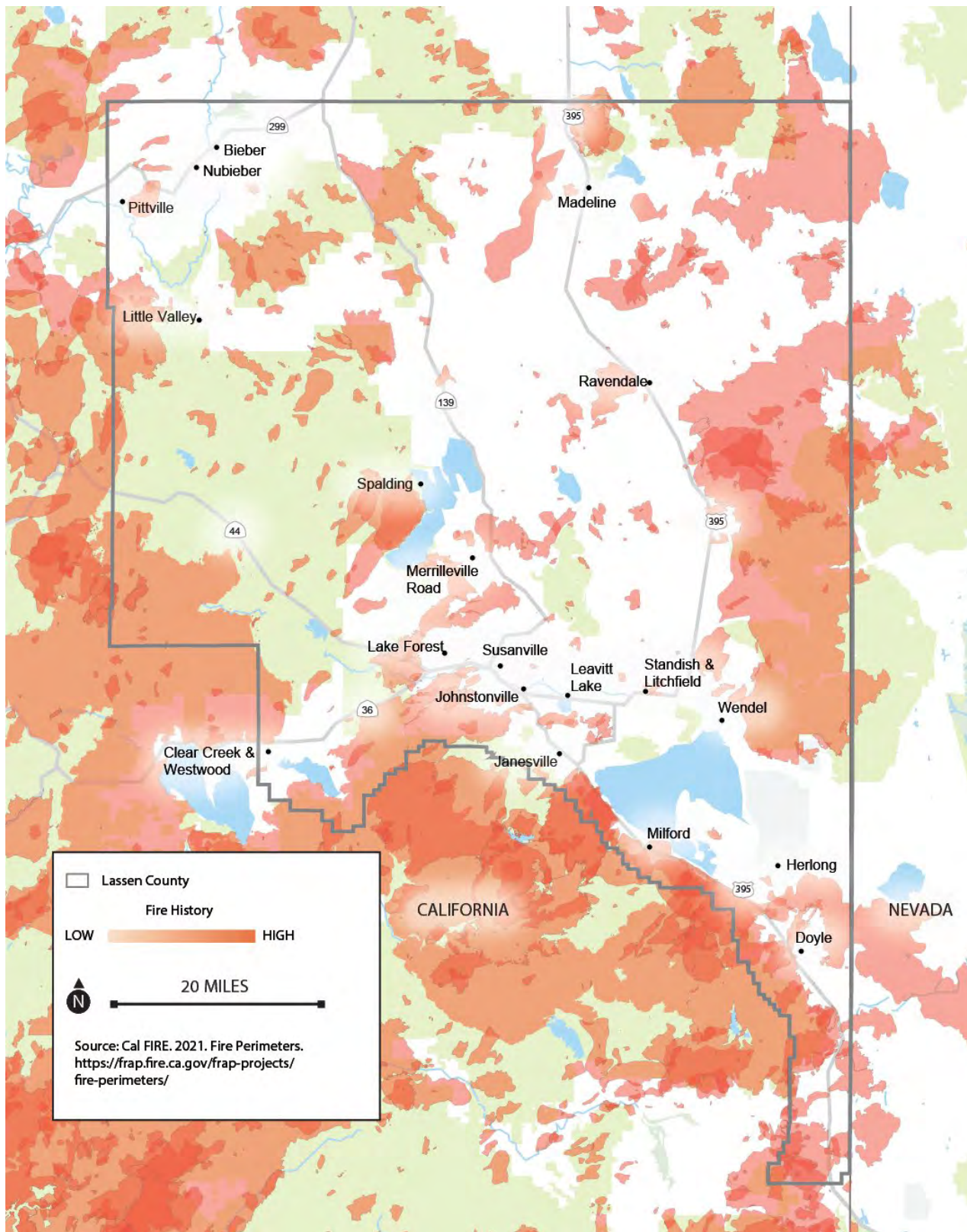
Figure 4 Wildfire Hazard Severity Zones in Lassen County





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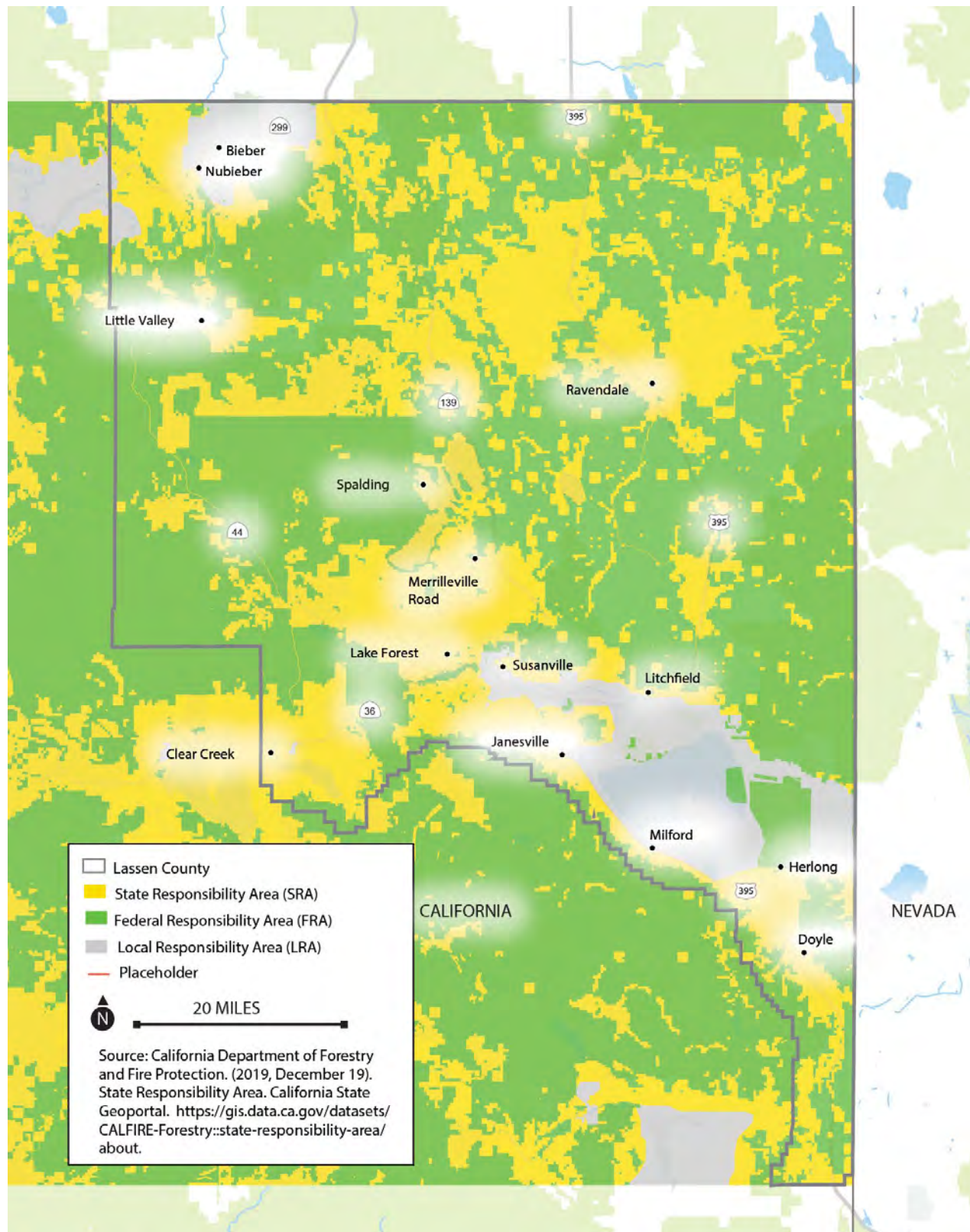
Figure 5 Historic Wildfires in Lassen County



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Figure 6 Fire Protection Responsibility



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