

SIERRA COUNTY



2025



MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

Volume 2 – Planning Partner Annexes



Agency Submittal Draft
December 2025



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1. INTRODUCTION

1.1 BACKGROUND

Sierra County's initial hazard mitigation plan (HMP) was developed and adopted as a single-jurisdictional HMP in December 2012. While the prior plan focused only on the County, the 2025 update is a multi-jurisdictional hazard mitigation plan (MJHMP) that includes annexes for jurisdictions throughout Sierra County (County) to address their specific capabilities, vulnerabilities, and mitigation opportunities.

Multi-jurisdictional hazard mitigation planning can be an effective process to build partnerships between communities that face common hazard risks, leading to shared solutions. It can also help build a foundation to shift priorities as risks and vulnerabilities change. Multi-jurisdictional planning processes are encouraged by the Federal Emergency Management Agency (FEMA), and offer the following advantages:

- Improves communication and coordination among jurisdictions and other regional entities
- Enables comprehensive mitigation approaches to reduce risks that affect multiple jurisdictions
- Maximizes economies of scale by leveraging individual capabilities and sharing costs and resources
- Avoids duplication of efforts, and
- Provides an organizational structure that local jurisdictions may find supportive.

For the Sierra County Multi-Jurisdictional Hazard Mitigation Plan 2025, a planning partnership was formed and was made up of jurisdictional representatives seeking Disaster Mitigation Act of 2000 (DMA 2000) compliance. They were responsible for participating throughout the process, reviewing information and providing input, informing the risk assessment, developing mitigation strategies, and adopting the MJHMP. The DMA 2000 defines a local government as follows:

"Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity."

In addition to the County, the jurisdictions participating in the Multi-Jurisdictional Hazard Mitigation Plan 2025 include the following:

- 1 municipality
- 9 special districts



All participating jurisdictions in a multi-jurisdictional plan must meet the requirements of Chapter 44 of the Code of Federal Regulations (44 CFR):

“Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan.” (Section 201.6(a)(4)).

Each participating planning partner prepared a jurisdiction-specific annex to this plan. These annexes, as well as information on the process by which they were created, are contained in this volume.

1.2 THE PLANNING PARTNERSHIP

1.2.1 Initial Solicitation and Letters of Commitment

In September 2024, the County notified its municipality and special service districts of the planning process and invited them to participate. They were asked to formally notify the County by letter of intent to participate and to identify points of contact to represent the municipality and participate throughout the planning process. The contacts each jurisdiction identified in the letter of intent to participate were informed of the planning process, attended meetings, provided direct input, and reviewed plan documents. In all, the planning team received formal commitment from 11 planning partners in addition to the County.

Municipalities/County

Sierra County (Unincorporated Area)
City of Loyalton

Special-Purpose Districts

Alleghany County Water District
Downieville Fire Protection District
Downieville Public Utility District
Pliocene Ridge Community Services District
Sierra City Fire Protection District
Sierra County Fire Protection District No. 1
Sierra County Waterworks Calpine District No. 1
Sierra-Plumas Joint Unified School District
Sierraville Public Utility District

Risk assessment maps for all planning areas (countywide) are provided in Volume 1 of this MJHMP while maps showing the risk assessment results for each of the participating municipalities are provided in the individual annexes for each jurisdiction.

1.2.2 Planning Partner Expectations

The planning team and consultant, Black & Veatch Corporation (Black & Veatch), developed the following list of planning partner expectations, which were provided and discussed at a formal kickoff meeting held in August 2024 (refer to Appendix A for details):

- Re-confirm lead and primary points of contact for the update effort.
- Support and participate in the Steering Committee meetings.



- Provide support required to implement the public involvement strategy.
- Participate in the planning process through the following:
 - Steering Committee meetings
 - Public meetings and outreach efforts
 - Workshops and planning partner-specific training sessions, and
 - Public review and comment periods prior to adoption.
- Perform a “consistency review” of all technical studies, plans, and ordinances specific to hazards.
- Review the risk assessment and identify hazards and vulnerabilities specific to the jurisdiction.
- Attend the mandatory jurisdictional annex workshop.
- Review and determine if the mitigation recommendations chosen in Volume 1 will meet the needs of the jurisdiction.
- Create an action plan that identifies each project, who will oversee the task, how it will be financed, and when it is estimated to occur.
- Formally adopt the MJHMP.

By adopting the MJHMP, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria would result in a planning partner being dropped from the planning partnership by the Steering Committee, and thus losing eligibility under the scope of the plan. All planning partners met the planning partner expectations, including attendance at mandatory workshops.

1.2.3 Final Coverage

All of the above jurisdictions submitted letters of commitment to participate, completed an annex template, fully met the participation requirements for this update, and will be covered by the 2025 Sierra County Multi-Jurisdiction Hazard Mitigation Plan upon FEMA’s approval of the plan and adoption of the plan by their individual governing bodies.

1.3 ANNEX DEVELOPMENT

1.3.1 Capability Assessment

A capability assessment creates an inventory of a jurisdiction’s mission, programs, and policies, and evaluates its capacity to carry them out. All participating jurisdictions compiled a capability assessment which helped to identify potential gaps in the jurisdictions’ capabilities. Specifically, if the capability assessment identified an opportunity to add a missing core capability or expand an existing one, then doing so has been selected as an action in the jurisdiction’s action plan. The sections below describe specific capabilities evaluated under the assessment.

Planning and Regulatory Capabilities

Jurisdictions can develop policies and programs and implement rules and regulations to protect and serve residents. Local policies are typically identified in planning documents, implemented via a local ordinance, and enforced by a governmental body. Because the planning and regulatory authority of counties and municipalities is generally broader than that of special-purpose districts, the assessment of these capabilities is more detailed for those partners.



Development and Permitting Capability

The County and its municipalities regulate land use through the adoption and enforcement of zoning, subdivision, and land development ordinances, building codes, building permit ordinances, floodplain, and stormwater management ordinances. When effectively prepared and administered, these regulations can mitigate hazards. As special-purpose districts typically do not have the ability to regulate land use, this capability was assessed only for the County and municipality.

Fiscal Capability

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees (fees charged to a development project).

Administrative and Technical Capability

Without appropriate personnel, the mitigation strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers, scientists, and grant writers.

Education and Outreach Capability

Regular engagement with the public on hazard mitigation provides opportunities to open a two-way dialogue that can result in a more resilient community. Use of a jurisdictional website, social media outlets, and other outreach resources to communicate mitigation information are assessed for each planning partner. Assessing outreach and education capability illustrates the connection between the government and community members.

Compliance with National Flood Insurance Program Requirements

Flooding is the costliest natural hazard in the United States and homeowners face increasingly high flood insurance premiums. Community participation in the National Flood Insurance Program (NFIP) opens up opportunities for additional grant funding associated specifically with flooding issues. Assessment of a jurisdiction's current NFIP status and compliance provides a greater understanding of the local flood management program, opportunities for improvement, and available grant funding opportunities. The NFIP is not available to special-purpose districts, so this set of capabilities was assessed only for the County and municipality.

Participation in Voluntary Programs

Participation in voluntary programs, such as the National Weather Service's StormReady and the National Fire Protection Association's Firewise USA, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs complement each other by focusing on communication, mitigation, and community preparedness to save lives and minimize the impact of natural hazards on a community. Participation in these programs demonstrates a jurisdiction's commitment to go beyond the minimum requirements set forth by local, state, and federal regulations to create a more resilient community. The programs reviewed here are only applicable to the County and municipality, so were not included in the capability assessments for the special-purpose districts.



Adaptive Capacity

An adaptive capacity assessment evaluates a jurisdiction's ability to anticipate impacts that may occur in the future. By looking at public support, technical adaptive capacity, and other factors, jurisdictions can identify their core capability for resilience against issues such as sea level rise and climate change. The assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their adaptive capacity as high, medium, or low.

1.3.2 Mitigation Action Plan Development

Risk Ranking

The risk-ranking methodology for partner annexes was the same as that used for the countywide risk ranking described in Volume 1. Each planning partner was asked to review the ranked risk for its jurisdiction, based on the impact on its population and/or facilities. The municipality and the County based this ranking on the probability of occurrence of each hazard, and its potential impact on people, property, and the economy. Special-purpose districts based this ranking on probability of occurrence and the potential impact on their constituency, vital facilities, and the facilities' functionality after a hazard event.

The objectives of this exercise were to familiarize the planning partnership with how to use the risk ranking, part of the assessment results, as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as "high" and "medium" for each jurisdiction were considered to be priorities for identifying mitigation actions, although jurisdictions also identified actions to mitigate hazards ranked "low," as appropriate.

Information Reviewed to Develop the Action Plan

In February 2025, each planning partner was provided with a toolkit of relevant documents to assist in developing their jurisdiction's action plan and was required to attend a workshop that provided guidance to develop their action plans. The toolkits were used during the mandatory Phase 3 workshops and in follow-up work conducted by the planning partners. Planning partners reviewed the following information included in the toolkit to assist in the identification of proposed mitigation actions:

- Capability assessment—Reviewed to identify capabilities that the jurisdiction does not currently have but should consider pursuing, or capabilities that should be revisited and updated to include best available information; also reviewed to determine how existing capabilities can be leveraged to increase or improve hazard mitigation in the jurisdiction.
- NFIP compliance table—Reviewed to identify opportunities to increase floodplain management capabilities.
- Adaptive capacity—Reviewed to identify ways to leverage or continue to improve existing capacities and to improve understanding of other capacities.
- Future integration opportunities—Reviewed to identify specific integration actions to be included in the mitigation strategy.
- Jurisdiction-specific vulnerabilities—Reviewed to identify actions that could reduce known vulnerabilities.



- Mitigation best practices catalog—Reviewed to identify actions that the jurisdiction should consider including in its action plan.
- Public input—Reviewed to identify potential actions and community priorities.

Action Plan Prioritization

The mitigation actions recommended in each jurisdiction’s action plan were prioritized using the same prioritization method in the 2023 California State HMP. Each action is reviewed and scored based on 15 questions, as presented in Table 1-1.

Table 1-1. Mitigation Action Prioritization Categories

Category	Question
Life Safety	Will the action result in life safety?
Property Protection	Will the action result in property protection?
Cost-Effective	Will the action be cost-effective (future benefits exceed cost)?
Technically Feasible	Is the action technically feasible?
Legal Authority	Does the jurisdiction have the legal authority to implement?
Funding Available	Is funding available for the action?
Environmental	Will the action have a positive impact on the natural environment?
Climate Change	Will the action mitigate impacts from climate change?
Equity Priority Community	Does the action benefit equity priority communities?
Administrative Capacity	Does the jurisdiction have the administrative capability to execute the action?
Multi-Hazard	Will the action reduce risk to more than one hazard?
Timeline	Can the action be completed in less than 5 years?
Stakeholder Support	Is there stakeholder (outside of jurisdiction staff) support for the action?
Other Local Objective	Will the action meet other local objectives (such as capital improvements, economic development, environmental quality, or open space preservation?)
Support Policies	Does the action support the policies of other plans and programs?

The answers to each of these questions are weighted as follows:

- Yes = 3 points
- Not sure/could be either yes or no/question is difficult to quantify = 1 point
- No = 0 points

After the scoring of each action, priorities are assigned based on the following:

- 31 or more = High Priority
- 15 to 30 = Medium Priority
- 0 to 14 = Low Priority

Classification of Actions

Each recommended action was also classified based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this classification are as follows:

- **Local Plans and Regulations**—Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.



- **Structure and Infrastructure Projects**—Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
- **Education and Awareness Programs**—Actions to inform residents and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
- **Natural Resource Protection**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, wetland restoration and preservation, and green infrastructure.
- **Climate Resiliency**—Actions that incorporate methods to mitigate and/or adapt to the impacts of climate change. Includes aquifer storage and recovery activities, incorporating future conditions projections in project design or planning, or actions that specifically address jurisdiction-specific climate change risks, such as sea-level rise or urban heat island effects.
- **Community Capacity Building**—Actions that increase or enhance local capabilities to adjust to potential damage, to take advantage of opportunities to build capacity, or to respond to consequences of insufficient capacity. Includes staff training, memorandums of understanding, development of plans and studies, and monitoring programs.

1.3.3 Annex-Preparation Process

Templates

Templates were created for the two types of jurisdictions (municipalities and special districts) participating in this plan to help the planning partners prepare their jurisdiction-specific annexes. The templates were designed so that all criteria of Section 201.6 of 44 CFR for local governments would be met based on the partners' capabilities and mode of operation. The templates were deployed in three phases during the course of the plan update process as follows:

- Phase 1—Team, Profile, Trends, Capability Assessment, Integration Review, and Information Sources
 - Deployed: February 4, 2025
 - Due: February 28, 2025
- Phase 2—Risk Assessment, Action Plan, Information Sources, Future Needs, and Additional Comments
 - Deployed: May 29, 2025
 - Workshop: April 27, 2025
 - Due: June 20, 2025

The templates were designed to lead all partners through the necessary steps to generate the Disaster Mitigation Act-required elements specific to their jurisdictions. The templates and accompanying instructions were used by every planning partner to develop the jurisdictional annexes.



Toolkit

Each planning partner was provided with a toolkit to assist in completing the annex template and developing their jurisdiction’s action plan. The toolkits contained the following:

- Information on past hazard events that have impacted the planning area.
- The risk assessment results developed for the plan update.
- Jurisdiction-specific annex templates, with instructions for completing them.
- A catalog of mitigation best practices and suggested actions to enhance adaptive capacity.
- The results of the public survey on community awareness of hazards conducted as part of the public involvement strategy.

Workshop

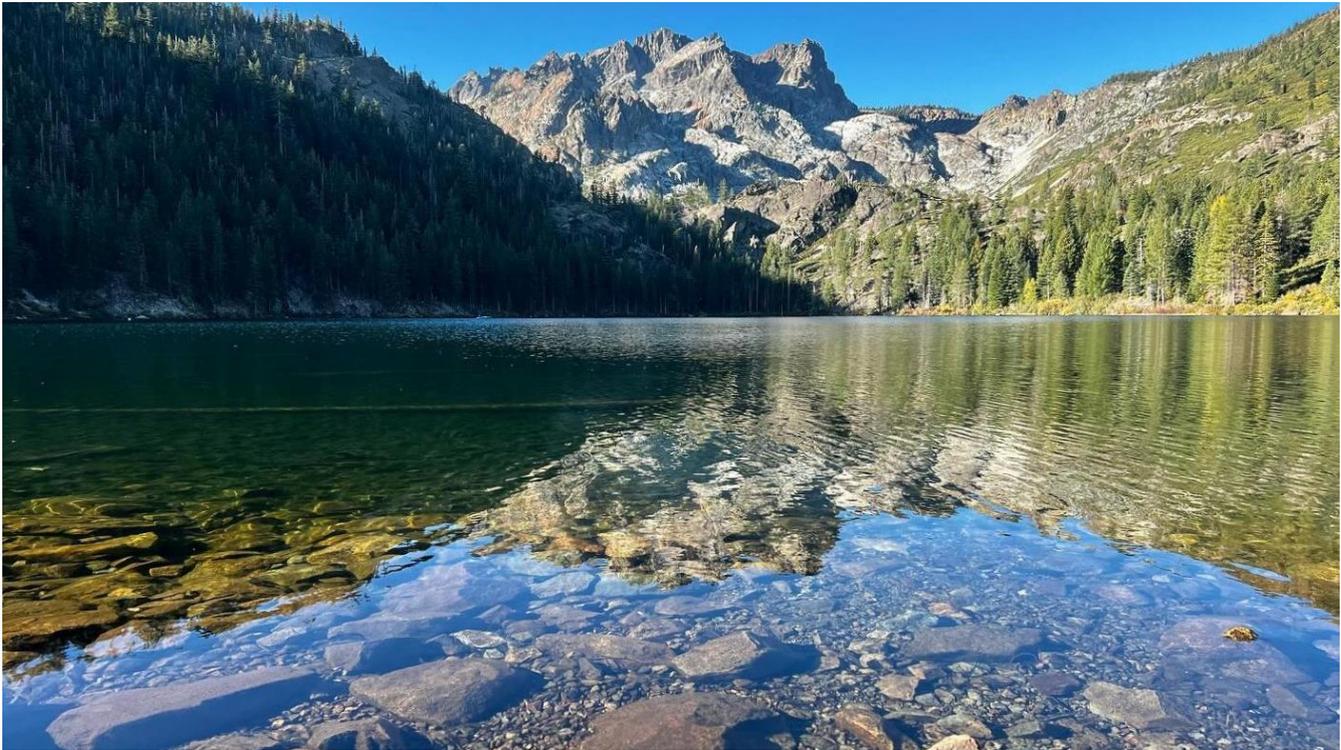
All partners were required to attend and participate in a virtual technical assistance workshop held April 27, 2025, where key elements of the annex template were discussed. The workshops focused on how the toolkit could be used to facilitate completion of the template and develop each jurisdiction’s mitigation action plan. The templates were subsequently completed by a designated point of contact for each partner and a member of the planning team. The workshop addressed the following topics:

- The jurisdictional annex templates and the toolkit.
- Natural events history.
- Jurisdiction-specific issues.
- Risk ranking.
- Status of prior actions.
- Developing the action plan.
- Benefit-cost review.
- Prioritization protocol.
- Next steps.

Following the conclusion of the workshop, a copy of the presentation given at the workshop session was provided to each of the planning partners.



2. SIERRA COUNTY (UNINCORPORATED AREA)



Credit: LeTina Vanetti

2.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Sierra County Unincorporated. Members are listed in Table 2-1.

Table 2-1. Local Planning Team

	Primary Point of Contact	Alternate Point of Contact
Name and Title:	LeTina Vanetti, OES Coordinator	Michael Fisher, OES Director
Address:	101 Courthouse Square P.O. Box 530 Downieville, CA 95936	101 Courthouse Square P.O. Box 530 Downieville, CA 95936
Phone Number:	530-993-6737	530-289-2850
Email:	lvanetti@sierracounty.ca.gov	mfisher@sierracounty.ca.gov
Contributors:		
Name and Title: Method of Participation:	LeTina Vanetti, OES Coordinator Attended Core Planning Team (CPT) and Steering Committee/Planning Partner meetings, coordinate and support Planning Partner/Stakeholder participation, maintain contact lists.	



Name and Title: Method of Participation:	Billy Epps, Engineer Tech II, Sierra County Department Public Works Attended CPT and Steering Committee/Planning Partner meetings, coordinated and supported Planning Partner/Stakeholder participation, maintained contact lists.
Name and Title: Method of Participation:	Brandon Pangman, Planning Director and Chief Building Official Attended Steering Committee/Planning Partner meetings, coordinated and supported Planning Partner/Stakeholder participation, ensured consistency with other Planning documents such as the General Plan Safety Element.
Name and Title: Method of Participation:	Sharon Johnson, Environmental Health Specialist Department of Public Health Attended Steering Committee/Planning Partner meetings. Provided technical expertise on Environmental Health Regulation and Planning.
Name and Title: Method of Participation:	Monica Beachell, Auditor-Appraiser Technician, reviewed the Annex, provided technical expertise.
Name and Title: Method of Participation:	Bryan Davey, Sierra County Public Works Director of Transportation Attended Steering Committee/Planning Partner meetings. Provided input on mitigation actions.

2.2 JURISDICTIONAL PROFILE

2.2.1 Location and Features

Sierra County is located in the northern section of the Sierra Nevada mountains on Highway 49. Sierra County is 980 square miles in size and is California's second least populated county. Loyalton is the only incorporated community; all other areas in Sierra County are unincorporated. Sierra County is known for its rugged terrain that ranges in elevation from 2,200 feet to 8,900 feet. The western side of the county has deep canyons and lush forests, while the largest valley in the Sierra Nevada range, the Sierra Valley, is located in the eastern side of the county. The Little Truckee, Feather, Downie, and Yuba Rivers flow through the County.

2.2.2 History

From the period of statehood on September 9, 1850, to the County's establishment on April 16, 1852, the area remained a part of Yuba County. Sierra County's history is tied to that of the California Gold Rush (1848-1955). While prior to the discovery of gold, the area was the home to both the Maidu and Washoe Indians. It was the discovery of gold and subsequent gold rush that saw some 16,000 miners settling within the area between 1848 and 1860.

Communities in the eastern side of the county, with agriculture as their base, grew to provide commodities to the growing gold camps. As the gold rush diminished and with discoveries elsewhere, Sierra County's population slowly decreased.

2.2.3 Governance

Sierra County is divided into five Supervisorial Districts making up the Board of Supervisors. The County consists of 16 departments including Building, Emergency Planning, Environmental Health, Planning,



Public Works, and Transportation. Sierra County currently employs 120 employees across all departments.

The Board of Supervisors assumes responsibility for the adoption of this plan; the OES Coordinator will oversee its implementation.

2.3 CURRENT TRENDS

2.3.1 Population

According to the California Department of Finance, the population of unincorporated Sierra County as of January 1, 2024, was 2,447. Since April 1, 2020, the population has decreased by 2 percent, with a negligible annual average decrease since 2010 (0.07 percent).

2.3.2 Development

Table 2-2. Recent and Expected Future Development Trends

Criterion	Response					
Has your jurisdiction annexed any land since the preparation of the previous HMP?	No					
Is your jurisdiction expected to annex any areas during the performance period of this plan?	No					
Provide the number of new construction permits for each hazard area or provide a qualitative description of where development has occurred.	Primarily in existing communities (Sierra City, Calpine, Sierraville, Sierra Brooks, etc.), some located in Floodplain, all in high- or very high fire hazard severity zones (FHSZ)					
Are any areas targeted for development or major redevelopment in the next 5 years?	No					
How many permits for new construction were issued in your jurisdiction since the preparation of the previous HMP?		2020	2021	2022	2023	2024
	Single Family	6	3	6	5	3
	Multi-Family	0	0	0	0	0
	Other (mobile homes, accessory dwellings, mixed use, etc.)	2	1	0	3	2
	Commercial	0	0	0	0	0
	Total	8	4	6	8	5
Describe the level of buildout in the jurisdiction, based on your jurisdiction's buildable lands inventory. If no such inventory exists, provide a qualitative description.	With decreasing population and a Regional Housing Needs Allocation (RHNA) of 2 over the next 5 years, Sierra Co. has sufficient vacant lands available for future development with a demonstrated capacity of over 496 additional units across a spectrum of income level affordability.					



2.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

2.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 2-3.

Table 2-3. Planning and Regulatory Capabilities

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Codes, Ordinances, and Requirements				
Building Code	Yes	No	Yes	Yes
Comment:	<i>Sierra County enforces the current 2022 Edition of the current California Building Code under Title 24 of the California Code of Regulations. Chapter 12.04, Ord. 571, eff. 2/5/80</i>			
Zoning Code	Yes	No	Yes	Yes
Comment:	<i>Title 15, Ord. 409, eff. 7/5/73</i>			
Subdivisions	Yes	No	No	Yes
Comment:	<i>Title 23, This title is adopted pursuant to Article XI, Section 7 of the California Constitution and to supplement and implement the Subdivision Map Act, Cal. Gov't Code § 66410 et seq., and may be cited as the subdivision code of Sierra County.</i>			
Stormwater Management	Yes	No	No	Yes
Comment:	<i>Chapter 23.16.020(D)</i>			
Post-Disaster Recovery	Yes	No	No	Yes
Comment:	<i>Chapter 8.16, Ord. 403, eff. 12/21/72</i>			
Real Estate Disclosure	No	Yes	Yes	No
Comment:	<i>CA for State Civil Code 1102. In California, the duty to disclose is codified in the California Civil Code Section 1102 which mandates a Real Estate Transfer Disclosure Statement (TDS). The TDS is a comprehensive disclosure statement that sellers must provide to potential buyers, covering the property's condition, known defects, relevant environmental hazards, and other neighborhood nuisances.</i>			
Growth Management	Yes	No	Yes	No
Comment:	<i>California law requires every city and county to have a "general plan" that serves as a long-term blueprint for future development. The Sierra County General Plan was last updated in 2012.</i>			



		Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Site Plan Review		Yes	No	No	No
Comment:	<i>The Local Agency Management Program (LAMP 2018) authorizes Sierra County Environmental Health to provide local oversight of onsite wastewater treatment systems (septic systems), greywater systems and liquid waste haulers.</i>				
Environmental Protection		Yes	No	Yes	No
Comment:	<i>Title 38.05, Adopted pursuant to the California Environmental Quality Act of 1970, as amended in October 1998, by the Secretary of the Resources Agency (Division 6, Title 14, California Administrative Code Section 15000 et seq.)</i>				
	<i>Title 36, adopted by reference the requirements of Chapter 6.7 of Division 20 of the Cal. Health & Safety Code §§ 25280 through 25299.6, amendments inclusive and the regulations as adopted pursuant thereto by the State Water Resources Control Board for the underground storage of hazardous substances.</i>				
Flood Damage Prevention		Yes	No	No	Yes
Comment:	<i>Chapter 32.05</i>				
Emergency Management		Yes	No	Yes	Yes
Comment:	<i>Chapter 8.16, Ord. 403, eff. 12/21/72</i>				
Climate Change		No	No	No	No
Comment:	<i>N/A</i>				
Planning Documents					
General Plan		Yes	No	Yes	Yes
Is the General Plan compliant with Assembly Bill 2140?		No			
Comment:	<i>Sierra County General Plan 2012</i>				
Capital Improvement Plan		Yes	No	No	Yes
How often is the plan updated?	<i>Annually</i>				
Comment:	<i>FY 2022-2026</i>				
Disaster Debris Management Plan		Yes	No	No	Yes
Comment:	<i>Needed capability added to the mitigation action plan</i>				
Floodplain or Watershed Plan		Yes	No	Yes	Yes
Comment:	<i>Included in the General Plan</i>				
Stormwater Plan		No	No	No	No
Comment:	<i>N/A</i>				
Urban Water Management Plan		No	No	No	No
Comment:	<i>N/A</i>				
Habitat Conservation Plan		No	Yes	No	No
Comment:	<i>Habitat Conservation Plan for Sierra Pacific Industries, 2020</i>				
Economic Development Plan		No	Yes	No	No
Comment:	<i>Comprehensive Economic Development Strategy 2023-2027, Sierra Economic Development District</i>				



	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Community Wildfire Protection Plan	Yes	No	No	Yes
Comment:	Sierra County Wildfire Protection Plan 2014			
Forest Management Plan	No	Yes	No	No
Comment:	US Forest Service, Sierra National Forest, 1991			
Climate Action Plan	No	No	No	No
Comment:	N/A			
Threat & Hazard Identification & Risk Assessment (THIRA)	No	No	No	No
Comment:	N/A			
Post-Disaster Recovery Plan	No	No	No	No
Comment:	N/A			
Continuity of Operations Plan	No	No	No	No
Comment:	N/A			
Public Health Plan	Yes	No	Yes	No
Comment:	Sierra County Health Assessment 2023			
Other	Yes	Yes	No	Yes
Comment:	Sierra County Broadband Planning and Feasibility Study 2023; Sierra-Nevada Climate Vulnerability Assessment 2022; Sierra County Drought Plan (in progress)			

Opportunities to Expand Planning and Regulatory Capabilities

Sierra County is seeking funding sources to update the General Plan Safety Element.

2.4.2 Development and Permitting Capabilities

Jurisdictions regulate land use through the adoption and enforcement of zoning, subdivision and land development ordinances, building codes, building permit ordinances, floodplain, and stormwater management ordinances. When effectively prepared and administered, these regulations can lead to hazard mitigation. Development and permitting capabilities are presented in Table 2-4.

Table 2-4. Development and Permitting Capabilities

Criterion	Response
Does your jurisdiction issue development permits?	Yes
If no, who does? If yes, which department?	Building/Planning
Does your jurisdiction track permits by hazard area?	No
Does your jurisdiction have a buildable lands inventory?	No



2.4.3 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 2-5.

Table 2-5. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas, or Electric Service	No
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

Opportunities to Expand Fiscal Capabilities

- Need dedicated staff for fiscal responsibilities.
- Consider standby on-call grant monitoring/writing support with contractors.

Additionally, the County has identified Mitigation Action 17 to pursue funding for critical facility retrofits.

2.4.4 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 2-6.



Table 2-6. Administrative and Technical Capabilities

Staff/Personnel Resource		Available?
Planners or engineers with knowledge of land development and land management practices		Yes
<i>If Yes, Department /Position:</i>	Planning Department: 2 land use Planners (plus Director); contract County Surveyor/Engineer; contract land use consultants as-needed (Dudek, Mintier-Harnish, Abbott & Kindermann, Price Consulting Services)	
Engineers or professionals trained in building or infrastructure construction practices		Yes
<i>If Yes, Department /Position:</i>	Building Department, Public Works Department; 1.5 FTE certified Building Inspectors; contract plan review and specialized inspectors as-needed (Willdan, 4Leaf, NST, etc.)	
Planners or engineers with an understanding of natural hazards		Yes
<i>If Yes, Department /Position:</i>	Planning Department, OES, Sheriff’s Department	
Staff with training in benefit-cost analysis		No
Surveyors		Yes
<i>If Yes, Department /Position:</i>	Department of Public Works / (contract) County Surveyor	
Personnel skilled or trained in GIS applications		Yes
<i>If Yes, Department /Position:</i>	Planning Dept./Planner III; DPW/Transp. Planner-Eng.Tech.; County Forester	
Scientist familiar with natural hazards in local area		No
Emergency manager		Yes
<i>If Yes, Department /Position:</i>	Sheriff’s Department/OES Coordinator	
Grant writers		No
Procurement Services and Management		Yes
<i>If Yes, Department /Position:</i>	Auditor; Department of Public Works / Transp.-Public Works Director	

Opportunities to Expand Administrative and Technical Capabilities

Contract support is needed for on-call grant monitoring/writing support. Additionally, the County has identified mitigation actions to expand this capability including Mitigation Action 26 to obtain training for the floodplain administrator to become a Certified Floodplain Manager.

2.4.5 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 2-7.

Table 2-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
<i>If yes, briefly describe:</i>	Hazard Assessment & Plans, Emergency Resources, Defensible Space – Prepare for Wildfire, Hot Weather Safety



Criterion		Response
Do you use social media for hazard mitigation education and outreach?		Yes
<i>If yes, briefly describe:</i>	Instagram, Facebook	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?		Yes
<i>If yes, briefly describe:</i>	Volunteer Fire Departments	
Do you have any other programs in place that could be used to communicate hazard-related information?		Yes
<i>If yes, briefly describe:</i>	Bulletin boards in Post Offices	
Do you have any established warning systems for hazard events?		Yes
<i>If yes, briefly describe:</i>	Everbridge (alert), Genasys (mapping), CAL FIRE text updates	
Do you have a large population of visitors and tourists and a way to communicate risk?		Yes
<i>If yes, briefly describe:</i>	US Forest Service campground bulletin boards	
Do you have isolated populations and a way to communicate risk?		Yes
<i>If yes, briefly describe:</i>	Bulletin boards in post offices	

Opportunities to Expand Education and Outreach Capabilities

- Training for dedicated PIO staff.
- Outreach needed for vacation rentals to inform visitors of risk and hazards.
- Explore whether a program can be implemented to track visitors/register people in the back country for hazard awareness or emergency notification.
- Work with the US Forest Service (USFS) to post notifications and alerts at trailheads.
- No cell or radio service in some areas. Need funding to be able to expand service.
- Core communication dispatch is outdated and needs to be modernized.

2.4.6 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 2-8.

Table 2-8. Community Classifications

	Participating?	Number or Classification	Date Classified
FIPS Code	Yes	06091	N/A
Unique Entity Identifier (UEI)	N/A	N/A	N/A
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	N/A	N/A	N/A
Public Protection (ISO for Fire Districts)	Downieville FPD	6/6 X	June 1, 2017
	Pliocene Ridge CSD	5/5Y	2020
	Sierra City FPD	7	Before 2020
	Sierra County FPD 1	6/6X	N/A



	Participating?	Number or Classification	Date Classified
StormReady	No	N/A	N/A
Firewise (individual unincorporated communities within the County: Alleghany/Pike/Pliocene Ridge, Calpine, Downieville Goodyear’s Bar, Sierra Brooks, Sierraville, Sierra City, Verdi)	Yes	N/A	N/A
Fire Safe Council (Fire Safe Sierra County)	Yes	N/A	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

2.4.7 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 2-9.

Table 2-9. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Medium
<i>Comment:</i> Hotter weather than in past years, but no plans to address the possibility of changes.	
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Medium
<i>Comment:</i> Cooling centers have been identified by partners in the County	
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Low
Residents’ knowledge of and understanding of climate risk	Medium
<i>Comment:</i> Residents new to the area are not as aware as the long-time residents who understand changes in temperatures.	
Residents’ support of adaptation efforts	Low
Residents’ capacity to adapt to climate impacts	Medium
<i>Comment:</i> Some have added air conditioning to their homes.	



Criterion	Jurisdiction Rating ^a
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low
<i>Comment:</i> 85% of land in the unincorporated County is owned by the USFS	

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The Countywide Drought Plan is currently underway and is targeted to increase awareness of adaptation due to the drought hazard.

2.5 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Flooding is the costliest natural hazard in the United States. Community participation in the NFIP opens up opportunity for additional grant funding associated specifically with flooding issues. Assessment of the jurisdiction’s current NFIP status and compliance provides planners with a greater understanding of the local flood management program, opportunities for improvement, and available grant funding opportunities. Information on NFIP compliance is presented in Table 2-10.

Table 2-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Building/Planning
Who is your floodplain administrator? (department/position)	Sierra County Director of Planning
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	12/18/2008
Does your floodplain management program meet or exceed minimum requirements?	Exceeds - 1-foot freeboard
When was the most recent Community Assistance Visit or Community Assistance Contact?	2006 done and included a final report. 2009 City of Loyalton had a CAV. Loyalton has been responsible for their own since 2013 - 2015, but no final resolution for the report.



Criterion		Response
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?		None
Are any RiskMAP projects currently underway in your jurisdiction?		Yes, underway, but the maps do not accurately reflect risk. Currently in the third round of revisions.
Do your flood hazard maps adequately address the flood risk within your jurisdiction?		No. Sierra Valley mapping is not complete.
Does your floodplain management staff need any assistance or training to support its floodplain management program?		Yes.
<i>If so, what type of assistance/training is needed?</i>	Three or four staff members need training for floodplain management, but no training has been identified. No CFMs on the County staff; needed for floodplain administrator.	
Does your jurisdiction have a Substantial Damage Response Plan?		No
How does your jurisdiction assess substantial damages?	Assessed by a contracted appraiser and the floodplain administrator. An assessment of all structures has not been done. No inventory of homeowners interested in elevations.	
Does your jurisdiction participate in the Community Rating System (CRS)?		No
<i>If yes, is your jurisdiction interested in improving its CRS Classification?</i>		N/A
How many flood insurance policies are in force in your jurisdiction?		32
<i>What is the insurance in force?</i>		\$9,211,000
<i>What is the premium in force?</i>		\$67,787
How many total loss claims have been filed in your jurisdiction? ^a		16
<i>What were the total payments for losses?</i>		\$456,430

a. According to FEMA statistics as of 12/31/2024

Opportunities to Expand NFIP Capabilities

The County has identified Mitigation Action 26 as an opportunity to expand this capability by obtaining Certified Floodplain Manager training for the Floodplain Administrator.

2.6 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

2.6.1 Existing Integration



Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

- Sierra County Fire Safe and Watershed Council (Fire Safe Sierra County) is a non-profit organization that helps promote wildfire resilience throughout the County. Their goals include help protect residents, community, and natural resources from wildfire; foster and assist Sierra County Firewise communities with their mission, reducing wildfire risk to homes and properties; empower landowners and residents to care for their homes and properties through hazard fuel removal assistance and community education programs; and partner with other local, state, and national agencies and organizations who function to preserve and protect the people, communities, and natural resources.
- The following are plans that require funding to complete:
 - CWDG two grant, Sierra County Community Wildfire Protection Plan Update \$51,000 and Sierra County Community Wildfire Mitigation Leadership \$203,550
 - CAL FIRE Sierra County Evacuation Route Plan and Development \$121,000
 - USFS Good Neighbor Forest clearance grant \$1,000,000
 - USFS North Yuba Greene Acres Roadside Fuels IRL USFS SPA, \$3,300,000
 - SNC, Upper North Yuba Forest Health and Resilience 1023, \$500,000
 - SNC Greene Acres, Forestry, \$100,000
 - SNC Regional Forest and Fire Capacity Program, \$258,500

2.6.2 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **General Plan Safety Element** will use risk assessment data from this MJHMP.

2.7 RISK ASSESSMENT

2.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 2-11 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 2-11. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildfire	2024 Bear Fire	N/A	N/A	No structures were burned, but fencing was damaged and fire suppression damage.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Moderate snow added to an already heavy mountain snow-pack, bringing snow removal challenges for mountain highways, with travel delays and periods of chain controls. There were embedded thunderstorms with small hail in the foothills and heavy snow showers in the mountains. Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides and downed trees.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	A wet system brought periods of heavy rain with flooding. Heavy rain fell bringing widespread roadway flooding, as well as local mudslides, flash flooding, with evacuations ordered in some areas. Thunderstorms with large hail, strong damaging winds and tornadoes were reported. Strong winds gusting to 55 to 75 miles per hour (mph) brought down numerous trees and powerlines across the area, causing widespread and extended power outages.
Storm	December 2021 Storms	2022-03	12/30/2021	Downed powerlines, power failures, trees down on houses.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	The Loyalton Fire began on 8/14/2020 and was active for 12 days, burning over 47,000 acres.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Impacts to staffing capacity countywide.
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	A storm system brought wind damage to trees, thunderstorms with hail, and snow accumulating down into the foothills of the Sierra and Coastal Range. Severe flooding and road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Two significant waves of precipitation associated with an atmospheric river brought heavy rain and higher elevation (mainly above 6,500 feet) snowfall to northeast California. Flooding from creeks covered the intersection of Highways 49 and 89 in Sierraville. Shallow water was photographed up against buildings at the Sierraville Ranger Station. A washout caused the closure of Highway 49 between Sattley and Yuba Pass. Severe flooding and road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	2008 January Storms	2008-01	1/5/2008	Snowfall totals of 3 to 11 feet were reported in the northern Sierra Nevada Mountains, with winds up to and possibly exceeding 100 mph coupled with heavy snow bringing blizzard conditions.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Storm after storm affected northern and central California with extreme precipitation impacting the Sierra County region. Road and highway damage, slides, trees down, power outages, flooding.
Flood	Extreme Rainfall	2005-07	11/7/2005	\$504,323 Snow levels were 4,000 to 5,500 feet and snow amounts up to 18 inches in the higher elevations.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Sierra County experienced severe flooding due to a series of powerful storms that brought heavy rain and rapid snowmelt from the Sierra Nevada mountains. This event was part of a larger, devastating flood across Northern California, triggered by an atmospheric river. The storms led to widespread inundation, levee breaches, and significant damage to infrastructure and property in the region. Highest recorded flooding, peak flow 45,500 cubic feet per second (cfs); 12 structures destroyed, at least 40 others damaged, debris clearance, emergency protective measures, significant highway and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	A powerful Pacific jet stream brought heavy precipitation. These storms, exacerbated by a moderate to strong El Nino, resulted in significant damage and loss of life. The storms caused flooding on both large and small rivers, with some areas experiencing record-breaking flow rates. Storm damage countywide approximately \$250,000.
Fire	1994 Cottonwood and Crystal Fires	N/A	N/A	Burned much of the east side of the Tahoe National Forest. Homes burned in Sunrise Basin and threatened in Verdi, CA. Homes burned in Verdi, NV. Sierra Brooks and Mill Site were dramatically at risk during Cottonwood Fire.
Flood	Severe Winter Storm, Mudslides and Landslides, and Flooding	DR-979-CA 93-01	2/3/1993	Sierra County experienced flooding and road closures. Damaged structures, roads, utilities from flooding, mudslides, rockslides, trees falling, and an avalanche.
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire 8,500 acres.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	A series of powerful storms brought intense rain and snow to Northern and Central California, causing widespread flooding, mudslides, and significant damage, particularly in Sierra County. \$1.3 million in Damage Sierra County. Damage to homes, motels, roads, and utilities.
Flood	Heavy Rains and Flooding	82-03	4/1/1982	In April 1982, Sierra County experienced severe storms and flooding. The storms brought heavy rainfall and snowmelt, leading to overflowing rivers and streams, causing significant damage to infrastructure and property.
Flood	1980 April Storms	80-01 through 80-25	4/1/1980	Significant flooding was experienced across California, with the Sierra Nevada and its foothills experiencing substantial runoff.
Drought	Drought	EM-3023-CA	1/20/1977	Drought conditions impacted the entire County during one of the driest years on record in California.
Flood	Severe Storms and Flooding	DR-253-CA	1/26/1969	A series of storms caused significant flooding across the state, with the San Joaquin basin, Sacramento basin, central coast drainages, and the Truckee River and Honey Lake basins being heavily impacted. Warm air during the storms resulted in rain falling at high elevations, contributing to melting snowpack and increased runoff in the Sierra Nevada. Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees.
Flood	Heavy Rains and Flooding	DR-183-CA	12/24/1964	The Christmas flood of 1964 caused significant flooding in Sierra County as part of a larger disaster affecting multiple northwestern states. This event was characterized by heavy rainfall, melting snow, and frozen ground, leading to extreme runoff and devastating floods. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	The 1963 floods in Sierra County were caused by a warm-type storm that brought heavy rainfall to the Sierra Nevada mountains. The storm resulted in rapid stream rises and flood peaks. Peak flow 40,000 cfs - North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at 2 million dollars. Two houses destroyed and many others with substantial damage.
Fire	1960 Major Fires	No number	8/16/1960	Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				Hill, Slug Canyon Ridge, Mountain House burn. Electrical Interruptions between Downieville and Sierra City. Donner Ridge fire burned a ranch in Sardine Valley.
Fire	1959 Coldstream Fire	N/A	N/A	Intense battle to save Campbell Hot Springs area of Sierraville.

2.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for Sierra County Unincorporated Area is based principally on the Priority Risk Index (PRI), a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the County in identifying hazards that pose the most significant threat. Table 2-12 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property and the economy.

Table 2-12. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	.10	.30	.40	.40	.30	1.51.5	Low
Drought	1.2	.30	.80	.10	.30	2.7	Medium
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.30	3.0	High
Flood	1.2	.60	.80	.10	.30	3.0	High
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.13.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.90	.80	.40	.30	3.6	High
Winter Storm	1.2	.60	.80	.10	.30	3.0	High

2.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided in the hazard profile sections of Volume 1.



Repetitive Loss Properties

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 0
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: N/A

Other Noted Vulnerabilities

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Verdi needs water infrastructure. There are 120 homes on the California side, but no fire hydrants.
- Downieville PUD water infrastructure for fire suppression needs to be increased.
- Sierraville and Sierra Brooks/Loyalton and Downieville – Levee type diversion needed for Smithneck Creek due to shallow flooding.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.

2.8 STATUS OF PREVIOUS PLAN MITIGATION ACTIONS

Table 2-13 summarizes the mitigation actions that were recommended in the 2012 plan and their implementation status at the time this update was prepared.

Table 2-13. Status of Previous Plan Actions

Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
County Storm Watch Program - Create an automated system of rain and flood gauges on the major tributaries and storm approach path to the River Drainage system. The system will be web-enabled and accessible from both the flood operation centers and the County’s website. The tool will be constantly used for surveillance during the rainy season.	Complete/Ongoing Capability – Leveraging existing resources provided by the state and federal departments.	Identified as a Current Capability; however, this action will be rephrased and included in the MJHMP update.	X	7
Small Stream Warning System - Increase coverage of storm watch sensors to include 10 more small streams that, due to land use changes, have demonstrated	Complete/Ongoing Capability – leveraging existing resources provided by the State and federal departments.	Identified as a Current Capability; however, this action will be rephrased and included in the MJHMP update.	X	7



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
impact on small stream and urban flooding.				
Storm early warning enhancements - Distribution of NOAA weather radios to high risk, limited income families living in flood zones. Developing program of free or at cost NOAA radios for families in the various flood zones in Sierra County.	-	No progress – Include in the MJHMP update.	X	8
Community education flood fighting techniques - Work with California Department of Water Resources to offer an annual training on flood fighting techniques for the Public Works Department and the general public. This will increase citizens’ exposure to self-help protection and mitigation actions.	Complete at the county level; not progress at the public level.	Include in the MJHMP update; however, this action will be rephrased.	X	9
Streambed Vegetation Management Plan - To balance the need for the smooth out flow of storm waters versus the need to maintain wildfire habitat a comprehensive streambed vegetation management plan needs to be developed to ensure the efficacy of the flood control efforts and maintain the viability of the living river vision.	Ongoing Capability – part of the day-to-day operations.	Include in the MJHMP update; however, this action will be rephrased.	X	10
Levee, streambed, and bank Vegetation Management Plan - Develop an approved approach of repairing and upgrading the existing historic flood control structures in Sierra County. Approach will include using riprap and streambed depth management and upgrading the 19th century levee protection near Downieville.	Ongoing Capability – part of the day-to-day operations.	Include in the MJHMP update; however, this action will be rephrased.	X	10
Housing elevation or relocation project - Apply for pre-disaster mitigation grant to elevate 10 most flood-prone houses along areas not receiving direct protection from the Control Project. This program	-	No progress - as of the date of the MJHMP update, there are no RL/SRL properties within Sierra County. This action will be included in	X	11



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
would reduce reoccurring losses due to repetitive flooding and minimize the expense for the property owner.		the MJHMP update; however, it will be rephrased.		
Replacing older culverts with modern box culverts with up and downstream reinforcement - Program would involve increasing stream carrying capacity by replacing older culverts with larger box culverts with the culvert entrances and exits reinforced. This minimizes the ability of water borne debris to jam the culvert and create uncontrolled bank, bridge and road erosion. While this increased capacity will not eliminate flooding by itself, it is part of a systems approach to making Sierra County more flood resistant.	All culverts are adequate size in the County; it's the debris that causes the issue – County installing debris diversions into the culverts to collect debris which helps reduce/eliminate flooding. Install debris diversion system – Sierraville on both Perry and Sierraville Creeks on Hwy 89 – install above the highway crossing. Diversion dam – high risk because it can throw water into either creek.	Removed; No Longer Feasible – county-owned culverts are of adequate size; however, debris buildup is what caused flooding. The County has installed debris deflectors/screens to prevent culverts from clogging with debris. This helps in reducing/eliminating flooding from clogged culverts.	-	-
Elevation of Secondary Bridges Plan and Program - This measure would elevate (10) primary bridges affected by flooding. This program would elevate or replace critical second tier bridges on secondary and feeder streams to increase stream flow and maintain critical access and egress routes.	County has performed bridge replacements due to age. Replacing/upgrading bridges based on age, etc. – develop mitigation action.	Include in the MJHMP update; however, this action will be rephrased.	X	12
Develop a CERT Training Program - CERT is a 20-hour free program that trains citizens in basic skills to mitigate, prepare and respond to local disasters whether natural or technological.	-	Removed; No Longer Feasible.	-	-
Earthquake Insurance Education Campaign - Develop a public education campaign on the cost, risk and benefits of earthquake insurance.	-	No progress; include in the MJHMP update; however, this action will be rephrased.	X	13
Replacing and hardening county microwave and simulcast system - Replace old system with state of the art web controlled microwave and simulcast equipment, new	No Progress (replacing microwave) /Ongoing Capability - County has been upgrading repeaters, installing Starlink (approximately six to	Current Capability; include in the MJHMP update; however, this action will be rephrased.	X	14 and 15



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
repeaters and uninterruptible and sustainable power supplies to provide a secure and survivable backbone for all public safety post-earthquake communications.	date) at remote transfer sites – open to public – to connect to Wi-Fi via satellite – with a focus on reporting fires, etc., in remote areas.			
Emergency power and automatic transfer switches for all public buildings - Pre-position emergency power generation capability in all public buildings for use in the post-earthquake or energy crises in environment to maintain continuity of government and services for the public.	Some buildings have backup power, others still need them. The Courthouse has battery bank (they do have a generator system that is the primary backup); two generators being installed at behavioral health.	Identified as a Current Capability – additional generators are needed at county facilities.	X	6
Ensure a viable firefighting water supply - Purchase and maintain for each Fire District an emergency water pumping system including surface lines and hydrant system to pump water from existing sources, and transport and provide pressurized portable surface lines to temporarily replace damaged water mains and hydrants.	-	In progress – fire districts have equipment but there is a need to re-evaluate what they have and what is needed. Once determined, the County will seek funding to purchase water systems.	X	16
Hazard Mitigation Model Home Project - Conduct 10 demonstration projects on existing housing types; one in each community. Demonstrating structural and non-structural mitigation techniques, as community open house models of mitigation.	-	Removed; No Longer Feasible	-	-
Conduct a mobile home tie down program - Identify, contract and tie down 50 mobile homes used as year round permanent residences using a cost sharing basis, 75% grant, 25% mobile home owner cost sharing basis.	Complete / Ongoing Capability – addressed by County and/or municipal codes.	Removed; identified as a Current Capability	-	-
Retrofit Critical Public Safety Infrastructure - Identify, contract and retrofit two 1950's vintage fire stations and the Medical Clinic Building in Downieville.	-	No progress – all fire departments in the County are older and in need of upgrades and increased storage. They are all critical infrastructures.	X	17



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
		Previously requested for funding for the fire stations; however, funding was not awarded.		
Develop and conduct a defensible space community education program - Produce a jurisdiction specific workbook for homeowners on how to apply defensible space, publish and distribute to homeowners.	-	Identified as a Current Capability – in February 2022, the County entered into agreement with Fire Safe Sierra County. Fire Safe Sierra County promotes wildfire resiliency throughout the County for residents, businesses, and partners. In addition to Fire Safe Sierra County, the County will work with CAL FIRE to expand on defensible space outreach.	X	18
Develop defensible space enforcement and compliance program - Project would tie the public education and ordinance pieces into a field program of enforcement, modeled on county weed abatement and building code enforcement programs. Funding would include expenses for a FTE position to assist the County Fire Districts in enforcing the program by educating staff and also doing field enforcement and arbitration.	-	Identified as a Current Capability – in February 2022, the County entered into agreement with Fire Safe Sierra County. Fire Safe Sierra County promotes wildfire resiliency throughout the County for residents, businesses, and partners. In addition to Fire Safe Sierra County, the County will work with CAL FIRE to expand on defensible space outreach.	X	18
Develop voluntary defensible space inspection program Description - As an augmentation/alternative to an enforcement program, this program would create an incentive program for defensible space in the community, emphasizing enlightened self-interest in creating	-	Identified as a Current Capability – in February 2022, the County entered into agreement with Fire Safe Sierra County. Fire Safe Sierra County promotes wildfire resiliency throughout the county for residents,	X	18



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
defensible space for homeowners in the Interface Zone.		businesses, and partners. In addition to Fire Safe Sierra County, the County will work with CAL FIRE to expand on defensible space outreach.		
Develop GIS Vegetation Layer Maps - Develop comprehensive Ortho/Topo map layers, which demonstrate natural and agricultural vegetation countywide.	-	In Progress – the County has GIS data available; however, the County would like to expand their data to include additional information to help the County understand overall risk and assist with future planning and disaster management efforts.	X	19
Develop elected official Firewise education program. Program Description - Conduct a Firewise workshop for all elected officials with constituents that live in the interface zone. The workshop goal would be to educate the officials on the critical need for these programs in mitigating the Wild Land Urban Interface Fire threat.	-	Removed – Identified as a Current Capability – Sierra County has seven Firewise communities and Fire Safe Sierra County that work on educating elected officials and general public about wildfires and the wildfire urban interface (WUI).	-	-
Develop Defensible Space Grant application program for homeowners (Model Defensible space landscaping projects) - An incentive program to defer some of the burden on homeowners for the creation of defensible space. Homeowners would apply for the grant to be a 'model home' in a given area. Five \$1,000 annual grants would be awarded as incentive to be a model property for their neighborhood.	-	Removed – Identified as a Current Capability – Sierra County has seven Firewise communities and Fire Safe Sierra County that can apply for and receive funding to assist property owners with creating defensible space around their properties.	-	-
Revise General Plan with lessons learned from Firewise programs and analysis - Sierra County is rewriting its General Plan. The		Funding is needed to update the Safety Element. As funding becomes available, this	X	2



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
Safety Element will be greatly enhanced by the recognition of the Interface Fire threat, and the inclusion of the scientific state of the art fire mitigation strategies included in the Firewise approach to fire mitigation planning.		action will be part of the plan update as listed in action #2.		
Develop Fuel Reduction Program - Program will include five approaches to managing the fuel load in Sierra County. To assist homeowners in developing defensible space this program would include roadside collection and chipping. Mechanical fuel reduction equipment will be integrated into the program where terrain is compatible for its use. Vegetation management and harvesting programs would be reviewed, adopted and applied. Use of organic methods of fuel reduction, i.e. the use of goats, and the use of controlled burning to reduce the threat of fuel overload and maintain forest health.	-	Identified as a Current Capability – Fire Safe Sierra County has done some work in reducing fuel load and is supported by the County (e.g., Public Works). The County provides equipment to help in managing vegetation; however, additional work is needed and plan should be in place.	X	20
Conduct Fuel Reduction Program annually - With the annualized loss from fire, approximately 5-10 properties valued at approximately \$1,000,000 would produce a cost benefit ratio (1 to 5) of conducting a Fuel Reduction Program.	-	Identified as a Current Capability – Fire Safe Sierra County has done some work in reducing fuel load and is supported by the County (e.g., Public Works). The County provides equipment to help in managing vegetation; however, additional work is needed and plan should be in place.	X	20
Implement Public Road Clearance and Improvement Program description - Ensure all publicly maintained roads have a minimum of ten feet fire clearance on each shoulder; all dead end segments have at least a “T” intersection turn	-	Removed – Identified as a Current Capability – Large projects have been completed in the County through the USFS, Fire Safe Sierra County, and Sierra	-	-



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
around sufficient for typical wild land fire equipment.		County. This is an ongoing project for the County.		
Implement defensible space measures into all Interface Zone building permit processes - Add a defensible space overlay and plan requirement for all new construction in the Interface Zone. Require measurable defensible space improvements in accordance with current practices for the issuance of improvement permits on any property in the Interface Zone. This program is designed to institutionalize best practices for construction and defensible space on all new construction and improvement/remodeling of existing construction.		Removed – Identified as a Current Capability	-	-
Develop an Insurance Incentive Program with Insurance Agencies - Create a public/private partnership with insurance companies to give a discount on fire insurance premiums to “Forester Certified” Firewise landscaping and fire resistant building materials.	-	Removed; No Longer Feasible	-	-
Fire and Fuel Imaging and Residential Evolution Program Project - An integrated GIS based planning approach for Fire and Fuel Imaging. County Fire Districts, OES, GIS and ESRI as partners will develop a planning tool for constant evaluation of status of fire fuel surveillance and defensible space progress countywide.	-	Removed; No Longer Feasible – the County does not have GIS personnel on staff and majority of this work is done at the state level through CAL FIRE.	-	-
Forester Technical Specialist Advisory Program - Due to the decrease in the logging industry and the State’s budget crises, the career field of Forester is finding it very difficult to maintain employment. Defensible space planning and consulting, and	-	Removed; No Longer Feasible - this is a state level action that the County does not have jurisdiction over. The County works with the State as needed with	-	-



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
watershed management are two areas statewide where the re-training of foresters would meet the needs of the clients as well as the needs to utilize their existing skills in their chosen career field. Sierra County would serve as a local government advocate for a statewide program to revitalize the Forester career field as a principle planner and consultant for forest fire mitigation and watershed management issues.		regards to wildfires and watershed management.		
Conduct a Vulnerability Study - Conduct a countywide study in partnership with Cal EMA, subject matter experts to examine the county, identifying resources, targets and capability shortfalls.	Complete / Ongoing Capability – this is completed during the updates of the MJHMP and the County integrates findings and results of the vulnerabilities assessments into county plans and codes where applicable.	Removed; Identified as a Current Capability	-	-
Community alert and services network, 2-1-1 system Program description: - Contract a 24/7/365 staffed services information system using the national 2-1-1 system model, integrating all service call numbers for non-emergency services into one system.	Complete / Ongoing Capability - the County has an emergency alert program with Everbridge that sends alerts about emergencies and other important information in the County. Residents need to sign up online to receive alerts. The County also provides alerts on their website.	Removed; Identified as a Current Capability.	-	-
Secure, digital radio countywide - Develop a new microwave system, including digitally encrypted programmable radios to ensure secure disaster and counter terrorist communications.	-	Removed; No Longer Feasible – rephrased action to include in the MJHMP update.	X	21
Remote Area Satellite Wireless Internet Hubs - Develop 10 satellite to ground wireless internet hubs to give relatively high-speed internet access to all public and private buildings in Sierra County. This would provide connectivity to the internet for emergency communications, email warnings,	In Progress / Complete – to date, the County has installed approximately six Starlink systems at remote transfer sites which provides connectivity to the internet for emergency communications, reporting wildfires, and public information distribution. The general public has access to	-	X	14



Action from 2012 Plan	Comment if Completed	Removed; Identified as a Current Capability or No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action No. in Plan Update
and public information distribution during disasters as well as daily life.	these systems and can connect when nearby.			
Institute School CERT Training - Train all middle school or high school students in Sierra County in the basic 20-hour CERT Course. This would build a cadre of disaster savvy youth who could assist their school, family and neighborhood in disaster preparedness and response. Adding CERT to the basic science or civics curriculum would provide a captive audience for training and help empower youth with a sense of volunteerism and civic responsibility.	-	Removed; No Longer Feasible.	-	-
Conduct Shelter-in-Place community workshops - Conduct countywide workshops on how to shelter-in-place at home, school or business, using simple supplies, techniques and equipment.	Ongoing Capability – county has education in place (website, flyers, mailers, etc.) that inform residents on how to prepare for hazards which includes sheltering in place, evacuations, and overall safety tips. This is done through OES and Public Health.	Remove – Identified as a Current Capability.	-	-



2.9 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 2-14. Hazard Mitigation Action Plan

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: OES Support: Public Works	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans, ordinances and programs that dictate land use decisions in the community, including: <ul style="list-style-type: none"> • General Plan • CWPP 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: Planning Support: OES	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: OES Support: All County Departments	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
4	Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements: <ul style="list-style-type: none"> Enforce the flood damage prevention ordinance. Participate in floodplain identification and mapping updates. Provide public assistance / information on floodplain requirements and impacts. 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Planning Support: Public Works	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
5	Identify and pursue strategies to increase adaptive capacity to climate change.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 4, 5	Lead: Planning	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
6	Purchase generators for County-owned critical facilities and infrastructure that lack adequate backup power.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: Public Works	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
7	Sierra County Planning and Public Works Departments will conduct a feasibility study to identify key flood sources throughout the County. The study will help the County determine locations to install flood sensors and cameras. Once the study is complete, the County will purchase and install flood sensors and cameras at key flood sources (North Yuba River, Little Truckee River, Independence Creek, Smithneck Creek, Downie	Safety and Security; Transportation; Water Systems	New and Existing	1, 2, 4	Lead: Planning Support: Public Works	Medium (\$50,000-\$250,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
	River, Suzy Creek, Perry Creek, Sierraville Creek, and Goodyears Creek)							
8	The County Office of Emergency Services will provide outreach materials regarding NOAA weather radios on their webpage to inform and encourage residents to purchase a NOAA radio. Additionally, the County will consider applying for FEMA funding to purchase weather radios to use and distribute during natural hazard events.	Communications; Health and Medical; Safety and Security	New and Existing	1, 3, 5	Lead: OES	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
9	Sierra County Public Works Department and Office of Emergency Services will contact California Department of Water Resources to coordinate flood fighting training for county residents. The training will focus on what residents can do to prepare for floods, protect their properties from flooding, and ways to mitigate future flooding.	Safety and Security; Transportation; Water Systems	New and Existing	3, 5	Lead: Public Works Support: OES	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
10	To reduce the effects of flooding from heavy rain and aftermath of wildfires, Sierra County will create a detailed plan for managing vegetation that finds a balance between allowing stormwater to flow smoothly and preserving wildlife habitats. This plan will include ways to manage plants along riverbeds to ensure good flood control while keeping the vision of a healthy river alive. It will also involve repairing and updating old flood control measures in Sierra County, using methods like rock placement and managing the depth of streambeds, as well as modernizing the levee protection built in the 1800s near Downieville. This combined approach aims to improve flood protection while keeping ecosystems healthy and habitats thriving.	Safety and Security; Transportation; Water Systems	New and Existing	1, 2, 3, 4	Lead: Planning Support: Public Works	Medium (\$50,000-\$250,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
11	Sierra County Office of Emergency Services will develop an outreach program that focuses on retrofitting methods property owners can do to protect their structures from natural hazards (e.g., earthquake, wildfire, wind, etc.).	Communications; Food, Hydration, Shelter; Safety and Security	New and Existing	3, 5	Lead: OES	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
12	The County will conduct a comprehensive inventory of all primary and secondary bridges within its jurisdiction. This inventory will document the age, condition, and height of each bridge. By gathering this information, the County will be able to assess the necessary repairs or improvements for each bridge and evaluate whether the current height is sufficient to protect against flooding. Once the data collection is complete, the County will prioritize the bridges for repair or improvement based on their assessed needs.	Safety and Security; Transportation;	Existing	2, 3, 5	Lead: Public Works	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
13	Sierra County will increase public awareness of earthquake risk by expanding their outreach program and educating homeowners. Sierra County Office of Emergency Services will create an earthquake outreach page on their website (https://www.sierracounty.ca.gov/223/Emergency-Planning) and will include information on mitigation activities that residents and businesses can implement to reduce damage risk from earthquakes. Additionally, the County will include safety techniques to follow during and after an earthquake. Once the webpage is developed, the County will conduct an outreach campaign to promote the page and encourage residents to visit the site.	Communications; Food, Hydration, Shelter; Safety and Security	New and Existing	3, 5	Lead: OES	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
14	The County will identify additional remote sites to install Starlink systems. This will expand internet access for those in remote areas and provide access to emergency communications and	Communications	New and Existing	1, 3, 5	Lead: OES Support: Public Works	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time,	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
	notifications (e.g., reporting wildfires in remote areas).						General Fund	
15	The County has installed Starlink satellite internet service at some remote transfer sites, allowing the general public to connect when in range. This service enables residents in these remote areas to access the internet and report wildfires and other emergencies. To support this initiative, the County will develop a public outreach and education program to inform residents about connecting to Starlink. This program will include workshops and online materials, providing hands-on assistance for connecting devices and demonstrating how to report emergencies.	Communications; Safety and Security	New and Existing	3, 5	Lead: OES Support: Public Works	Low (\$0-\$50,000)	FEMA HMGP Grants, Staff Time, General Fund	Short-Term (less than 5 years)
16	The fire districts in Sierra County have water supply apparatus for firefighting; however, there is a need to add additional equipment and apparatus. Each fire district will conduct an inventory of current equipment and identify additional needs to help in fighting fires. Once determined, the County will work with the fire districts to identify funding options and apply for funding. Coordinates with Downieville Fire Protection District Action # 7, Pliocene Ridge Community Services District Action #10, Sierra City Fire Protection District Action #9, Sierra County Fire Protection District No. 1 Action #6	Health and Medical; Safety and Security; Water Systems	Existing	2, 3, 5	Lead: Fire Districts listed in action description Support: OES	Low (\$0-\$50,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Short-Term (less than 5 years)
17	Pursue funding and contracts to retrofit critical facilities in the County including: <ul style="list-style-type: none"> Two 1950's vintage fire stations in Downieville Medical Clinic Building in Downieville Coordinates with Downieville Fire Protection District Action #10	Food, Hydration, Shelter; Health and Medical; Water Systems	Existing	2, 5	Lead: Downieville Fire Protection District Support: Public Works	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, FMAG Grant, Staff Time,	Long-Term (5 years or more)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
							General Fund	
18	Sierra County and Fire Safe Sierra County will coordinate with Cal Fire to expand on the County's current outreach and implementation of its defensible space program.	Communications; Food, Hydration, Shelter; Health and Medical; Safety and Security	New and Existing	1, 2, 5	Lead: OES and Fire Safe Sierra County Support: CAL FIRE	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
19	County Fire Districts, Public Works Department, Planning, and OES will work with the Assessor's Office to expand the Sierra County Online GIS Map to include additional layers (land cover, roads, identified dead end roads, vegetation, flood hazard areas, waterbodies, and other hazard areas). This will help county staff in understanding overall risk and to use these maps when planning for and managing disasters. It will also allow residents to understand their risk to natural hazards.	Communications; Food, Hydration, Shelter; Safety and Security; Transportation; Water Systems	New and Existing	2, 3, 5	Lead: OES Support: Public Works, Planning, Fire Districts	Medium (\$50,000-\$250,000)	FEMA HMGP Grants, FMA Grant, FMAG Grant, Staff Time, General Fund	Long-Term (5 years or more)
20	Sierra County and Fire Safe Sierra County will work together to prepare and implement a fuel reduction program, with a focus on vegetation management. This will include a schedule to remove and reduce fuels in the County and an approach in vegetation removal (e.g., burning, thinning, chipping). This will provide the County with a program to help increase wildfire protection to its residents, businesses, and critical infrastructure.	Safety and Security; Water Systems	New and Existing	4, 5	Lead: OES Support: Fire Safe Council	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Short-Term (less than 5 years)
21	The County's current microwave system needs an upgrade. Due to its age, the potential for a failure increases and the County may not be able to fully restore if equipment or parts are not available. As a result, the County will conduct a feasibility study to determine the best options to upgrade the system. Once identified, the County will begin the upgrade process.	Communications	New and Existing	1, 3, 5	Lead: OES Support: Public Works	Very High (\$1,000,000 and above)	FEMA HMGP Grants, Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
22	In Sierraville, the area along Highway 89, between Perry and Sierraville Creeks, the culverts tend to fill with debris which prevents the culverts from functioning properly during heavy rain or snowmelt events. This leads to roadway and property inundation. The culverts in this area need debris diversion systems installed to help prevent the culverts from being clogged. The County Public Works Department will identify the culverts in need of diversions and will install the proper debris deflectors or screens to keep them free from debris and functioning during rain or snowmelt events.	Water Systems	Existing	1, 2	Lead: Public Works	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
23	The five schools in Sierra County serve as critical infrastructure to the County during emergencies. They can serve as shelters and heating/cooling centers. All five schools do not have backup power and will need a source of power to provide services during emergencies. The School District will purchase and install generators at the following locations: <ul style="list-style-type: none"> Downieville School – 130 School St., Downieville, CA Loyalton Elementary School – 111 Beckwith St., Loyalton, CA Loyalton High School – 700 Fourth St., Loyalton, CA Sierra-Plumas Joint Unified School District & Sierra County Office of Education – 109 Beckwith Rd., Loyalton, CA Sierra County Schools for Adults – 605 School St., Loyalton, CA (Coordinates with Sierra-Plumas Joint Unified School District Action # 4)	Food, Hydration, Shelter; Health and Medical; Safety and Security	Existing	1, 2	Lead: Superintendent Sierra-Plumas Joint Unified School District and Sierra County Office of Education Support: District Board, OES	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time, General Fund	Long-Term (5 years or more)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
24	The County will develop a countywide disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan and will align with permitted temporary collection areas throughout the County.	Safety and Security; Transportation; Water Systems	New and Existing	2, 3, 5	Lead: Public Works Support: OES	Medium (\$50,000-\$250,000)	Staff Time, General Fund	Short-Term (less than 5 years)
25	The County will develop a countywide Substantial Damage Response Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan (https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event (e.g., flood, wind, earthquake, wildfire).	Safety and Security; Transportation; Water Systems	New and Existing	2, 3, 5	Lead: Engineering & Surveying Support: Public Works	Medium (\$50,000-\$250,000)	Staff Time, General Fund	Short-Term (less than 5 years)
26	Training will be initiated for floodplain management, including CFM for the floodplain administrator.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	2, 5	Lead: Planning	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)



Table 2-15. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	1	1	1	3	3	0	3	3	3	3	40	High
5	0	0	1	1	3	0	1	3	3	3	3	3	1	1	1	29	Medium
6	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	43	High
7	0	0	1	3	3	0	1	3	3	1	0	3	3	3	3	34	Medium
8	0	0	1	3	3	0	0	0	3	1	3	3	3	3	3	34	Medium
9	1	1	3	3	3	0	1	1	3	1	0	3	3	3	3	38	Medium
10	1	1	3	3	3	0	1	1	3	1	0	3	3	3	3	39	Medium
11	1	1	3	3	3	0	0	1	3	1	0	3	3	3	3	39	Medium
12	1	1	3	3	3	0	0	1	3	1	0	3	3	3	3	40	Medium
13	3	1	3	3	3	0	0	1	3	3	0	3	3	3	3	45	High
14	1	1	1	3	3	0	0	0	3	3	3	3	3	3	3	44	Medium
15	3	1	3	3	3	0	0	3	3	3	0	3	3	3	3	49	High
16	3	3	3	3	3	0	0	3	3	3	0	3	3	3	3	52	High
17	3	3	3	3	3	0	0	3	3	3	0	0	3	3	3	50	High
18	3	1	3	3	3	0	0	3	3	3	0	3	3	3	3	52	High
19	1	1	3	3	3	0	0	1	3	3	0	0	3	3	3	46	Medium
20	3	3	3	3	3	0	3	3	3	3	0	3	3	3	3	59	High
21	1	1	1	3	3	0	0	0	3	3	3	3	3	3	3	51	Medium
22	1	3	3	3	3	0	1	1	3	3	1	3	3	3	3	56	High
23	3	1	3	3	3	0	0	0	3	3	3	0	3	3	3	54	High
24	0	0	3	3	3	0	1	0	3	3	3	3	3	3	3	55	High
25	0	0	3	3	3	0	1	0	3	3	3	3	3	3	3	56	High
26	0	0	3	3	3	0	1	0	3	3	3	3	3	3	3	57	High



Table 2-16. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	■		■		■	■		■	■
2	■					■	■	■	■	■	■	■	■	■	■	■
3	■					■	■	■	■	■	■	■	■	■	■	■
4	■		■	■	■	■					■					
5	■				■	■	■	■	■	■	■	■	■		■	■
6						■	■	■	■	■	■	■	■	■	■	■
7			■			■					■					
8			■		■		■	■	■	■	■	■	■	■	■	■
9					■						■					
10				■		■					■					
11		■	■				■	■		■	■	■	■	■	■	■
12		■				■					■					
13			■						■							
14		■					■	■	■	■	■	■	■	■	■	■
15			■				■	■	■	■	■	■	■	■	■	■
16						■									■	
17		■				■									■	
18	■		■	■											■	
19	■														■	
20	■				■	■									■	
21						■	■	■	■	■	■	■	■	■	■	■
22		■			■						■					
23						■	■	■	■	■	■	■	■	■	■	■
24	■					■	■	■	■	■	■	■	■	■	■	■
25	■					■	■	■	■	■	■	■	■	■	■	■
26						■					■					



2.10 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction’s needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 2-17.

Table 2-17. Public Outreach

Local Outreach Activity	Date	Number of People Involved
Placed printed surveys with self-addressed stamped envelopes in all Post Offices serving Sierra County (8) and Loyalton City Hall.	November 1 through 6, 2024	1,500
Posted survey link on the County Website via the News Flash Feature which notifies those who have opted in as well as places the notice on the first page.	October 28, 2024	3,000
Emailed survey link and printable version to key emergency preparedness partners and contacts through the Public Health Emergency Preparedness Program and Disaster Council distribution lists and all County employees.	November 7, 2024	300
Posted flyers and handed out surveys at local businesses in Loyalton, Sierraville, Downieville, and Sierra City.	November 1 through 30, 2024	500
Posted meetings and agendas on County Website also sends notifications to all who have opted into notifications of new posts.	August 28, 2024	3,000
Placed printed surveys with self-addressed stamped envelopes in commodities bags at several community distribution locations Loyalton, Alleghany, Downieville, and Sierra City.	November and December 2024	400
Shared the survey link through personal accounts on social media.	December 9, 2024	1,000
Sent printed surveys with the drivers delivering meals to Seniors and they picked them up once completed at the next delivery date.	November 10, 2024	65
With BOS approval, the CETF funding will be used to provide computer skills classes to the community – taught by the Sierra County School for Adults. The classes run 8 weeks, and I am going to ask that one of the lessons includes signing up or Everbridge and Genasys AWARE.	Fall 2025	Max capacity of 6 per class, targeting 4 classes. Funding may allow of additional classes. The hourly rate for classes in Loyalton is lower than other areas, so additional classes in Loyalton could also be offered.



2.11 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **Sierra County General Plan** was used for the capability assessment.
- **Sierra County Hazard Mitigation Plan 2012** was referred to for mitigation action reconciliation and developing the updated action plan.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



3. CITY OF LOYALTON



Source: City of Loyalton Fire Department

3.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the City of Loyalton. Members are listed in Table 3-1.

Table 3-1. Local Planning Team

	Primary Point of Contact	Alternate Point of Contact
Name and Title:	Sue McIlravy, City Council Member	Gary Price, Planning Director
Address:	P.O. Box 128 605 School Street Loyalton, CA 96118	Price Consulting Services 12144 Bitney Springs Road Nevada City, CA 95959
Phone Number:	530-993-6750	530-218-1059
Email:	councilwomansmcilravy@gmail.com	gary@plannerprice.com
Contributors:		
Name and Title:	Sue McIlravy, Councilwoman	
Method of Participation:	Attended Steering Committee/Planning Partner meetings, Contributed to Annex development	
Name and Title:	Gary Price, Consultant	
Method of Participation:	Assembly of Annex	
Name and Title:	Shawn Heywood, Fire Chief	
Method of Participation:	Reviewed the Annex for grant purposes	



3.2 JURISDICTIONAL PROFILE

3.2.1 Location and Features

The City of Loyalton is located in the eastern portion of Sierra County, in the northeast quadrant of the state of California. Loyalton is a General Law City, incorporated in 1901, and is the only incorporated city in Sierra County. The City covers approximately 225 acres, with an east-west width two-thirds of a mile, and a north-south width of one-half mile.

The City of Loyalton Fire Department serves the entire City and is staffed by volunteers. It participates in the Public Protection Class Rating System and currently has a rating of 6/6x.

3.2.2 History

This area was settled in the late 1850s mainly by Italian and Swiss immigrants traveling to California via covered wagons, drawn by oxen. What they found in this lush 100,000-acre valley was a land with plentiful water and teeming with wildlife, fish, and game. Many decided to stay rather than continue across the high mountains to the gold mines on the other side. The settlers who stayed formed successful dairy businesses to supply the gold miners in California with essentials such as milk, cheese, meat, eggs, and hay. The descendants of many of the original settling families still live in the valley today and own substantial ranches.

The homesteaders called their town Smithneck. During the American Civil War (1861 to 1865), the population raised huge amounts of money for the Union Army to help them defeat the Confederate Army. Community leaders change the name from Smithneck to Loyalton because the population was such a loyal town, as demonstrated by its generous support of the Union Army.

Due to the proximity of vast forests and the huge demand for wood in the California gold mines and Nevada silver mines, Loyalton boomed. And, when the Boca and Loyalton railroad arrived in 1901, Loyalton's city boundaries encompassed an area of 50 square miles, making it one of the largest towns in California by land area.

With the decline of gold mining, Loyalton's logging industry experienced a slump and, by 1915, nearly all the lumber mills closed.

After World War II, when pasteurization regulations came into effect, the local ranchers switched from dairy cows to raising beef cattle. Today, the Sierra Valley is summer pasture for beef cattle. The production of hay continues as it has since the mid-1800s when the valley was settled. Sierra Valley ranches are renowned for the quality of their hay, which is a function of warm summers with cool nights and a pristine environment.

3.2.3 Governance

Loyalton is governed by the five-member City Council, where one member serves as Mayor. The City Council assumes responsibility and will oversee implementation of this plan.



3.3 CURRENT TRENDS

3.3.1 Population

According to the California Department of Finance, the population of Loyalton as of January 1, 2024, was 724. Since April 1, 2020, the population has decreased by 1.9 percent. A negligible annual average decrease in residents has occurred since 2010 (0.04 percent).

3.3.2 Development

Table 3-2. Recent and Expected Future Development Trends

Criterion	Response																																				
Has your jurisdiction annexed any land since the preparation of the previous HMP?	No																																				
Is your jurisdiction expected to annex any areas during the performance period of this plan?	No; pending improvements to the City water system until additional substantive development can be conducted.																																				
Provide the number of new construction permits for each hazard area or provide a qualitative description of where development has occurred.	Very limited development, including some modular buildings for the school district offices on School Street near Railroad Avenue.																																				
Are any areas targeted for development or major redevelopment in the next five years?	Yes, potentially																																				
<ul style="list-style-type: none"> If yes, briefly describe, including whether any of the areas are in known hazard risk areas. 	<p>The City and Sierra County received a development application for the Forrest Edge Residential Community in July, 2022 for development of a mobile home park (construction of 52 manufactured homes on about 12 acres at 205 Hill Street) of which seven units would be constructed within Loyalton’s City limits and the remaining 45 units constructed in the County.</p> <p>The City provided water and sewer service to this site which was previously used as a mobile home park, but since abandoned. The project development application is on hold pending improvements to the City’s water system. The water system, due to antiquated lines and equipment, currently does not have capacity to serve significant new development.</p>																																				
How many permits for new construction were issued in your jurisdiction since the preparation of the previous HMP?	<table border="1"> <thead> <tr> <th></th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> <th>2024</th> </tr> </thead> <tbody> <tr> <td>Single Family</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Multi-Family</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Other (mobile homes, accessory dwellings, mixed use, etc.)</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Commercial</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Total</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>		2020	2021	2022	2023	2024	Single Family	0	0	0	0	0	Multi-Family	0	0	0	0	0	Other (mobile homes, accessory dwellings, mixed use, etc.)	0	0	0	0	0	Commercial	0	0	0	0	0	Total	0	0	0	0	0
	2020	2021	2022	2023	2024																																
Single Family	0	0	0	0	0																																
Multi-Family	0	0	0	0	0																																
Other (mobile homes, accessory dwellings, mixed use, etc.)	0	0	0	0	0																																
Commercial	0	0	0	0	0																																
Total	0	0	0	0	0																																
Describe the level of buildout in the jurisdiction, based on your jurisdiction’s	Based on an inventory conducted in 2024 for the General Plan Housing Element Update the City has 16 vacant residentially																																				



Criterion	Response
buildable lands inventory. If no such inventory exists, provide a qualitative description.	<p>zoned lots of approximately 8.5 acres that could be developed at a range of between 19 and 67 units.</p> <p>There is no inventory of vacant non-residential land available but reviewing zoning and aerial maps there is some limited vacant commercial land available along Highway 49 (approximately 5 acres) and significant vacant industrial land at the northeast end of town of about 15 acres that could be built out. There are many vacant and/or abandoned commercial buildings in town that may affect potential investment of future new commercial development in Loyalton.</p>

3.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. However, the City of Loyalton has significant challenges in its ability to expand or increase capabilities due to the lack of staff and funding.

3.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 3-3.

Table 3-3. Planning and Regulatory Capabilities

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Codes, Ordinances, and Requirements				
Building Code	Yes	No	Yes	Yes
<i>Comment:</i>	Chapter 10.04			
Zoning Code	Yes	No	Yes	Yes
<i>Comment:</i>	Chapter 12.08, Ordinance No. 424, Adopted October 19, 2021			
Subdivisions	Yes	No	No	Yes
<i>Comment:</i>	Chapter 12.04			
Stormwater Management	Yes	No	No	Yes
<i>Comment:</i>	Chapter 14.01			
Post-Disaster Recovery	No	No	No	Yes
<i>Comment:</i>	N/A			



	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Real Estate Disclosure	No	Yes	Yes	No
Comment:	CA for State Civil Code 1102. In California, the duty to disclose is codified in the California Civil Code Section 1102 which mandates a Real Estate Transfer Disclosure Statement (TDS). The TDS is a comprehensive disclosure statement that sellers must provide to potential buyers, covering the property's condition, known defects, relevant environmental hazards, and other neighborhood nuisances.			
Growth Management	Yes	No	Yes	No
Comment:	California law requires every city and county to have a "general plan" that serves as a long-term blueprint for future development. The City of Loyalton General Plan was last updated in 2015.			
Site Plan Review	Yes	No	No	No
Comment:	Chapter 12.08.10-22; 11-5; 15-6. City codes for light industrial, heavy industrial, public facility site plan review.			
Environmental Protection	Yes	No	Yes	No
Comment:	Chapter 12.16 Environmental Quality			
Flood Damage Prevention	Yes	No	No	Yes
Comment:	Chapter 14.01 Floodplain Management			
Emergency Management	Yes	No	Yes	Yes
Comment:	Chapter 14.01 Floodplain Management			
Climate Change	No	No	No	No
Comment:	n/A			
Planning Documents				
General Plan	Yes	No	Yes	Yes
Is the General Plan compliant with Assembly Bill 2140?	No			
Comment:	City of Loyalton General Plan 2015. The 2024-29 Housing Element was adopted by the City on February 18, 2025. Several programs in the Housing Element require that the City further update the General Plan during this period to include an update to the Safety Element and create a new Environmental Justice Element.			
Capital Improvement Plan	Yes	No	No	Yes
How often is the plan updated?	Annually			
Comment:	N/A			
Disaster Debris Management Plan	No	No	No	No
Comment:	N/A			
Floodplain or Watershed Plan	No	Yes	Yes	No
Comment:	Relies on the County			
Stormwater Plan	No	No	No	No
Comment:	N/A			
Urban Water Management Plan	No	No	No	No
Comment:	N/A			
Habitat Conservation Plan	No	No	No	No
Comment:	N/A			
Economic Development Plan	No	No	No	No
Comment:	N/A			
Community Wildfire Protection Plan	No	No	No	No
Comment:	N/A			



	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Forest Management Plan	No	No	No	No
<i>Comment:</i>	N/A			
Climate Action Plan	No	No	No	No
<i>Comment:</i>	N/A			
Threat & Hazard Identification & Risk Assessment (THIRA)	No	No	No	No
<i>Comment:</i>	N/A			
Post-Disaster Recovery Plan	No	No	No	No
<i>Comment:</i>	N/A			
Continuity of Operations Plan	No	No	No	No
<i>Comment:</i>	N/A			
Public Health Plan	No	Yes	Yes	No
<i>Comment:</i>	Sierra County Health Assessment 2023			
Other				
<i>Comment:</i>	N/A			

Opportunities to Expand Planning and Regulatory Capabilities

Related policies and programs in the General Plan are listed as follows:

- GP-1 Provide sufficient areas for each type of land use to permit full development needed to meet the demands of population growth and economic advancement. (Housing Element).
- GP-2 Promote a combination of employment and residential uses that provide both jobs and housing for Loyalton’s residents. (Housing Element).
- GP-3 Ensure an adequate supply and variety of commercial and industrial sites.
- GP-5 Consider the fiscal impacts of development to ensure that the City has adequate financial resources to fund community projects and programs.
- EP-1 Delineate evacuation routes and alternate evacuation routes. (Circulation Element)
- EP-3 Provide adequate access for medical emergency equipment in new developments.
- EP-4 Design and construct all buildings to provide a safe environment and a plan for evacuation. (Housing Element) (Noise Element).
- EI-1 In cooperation with public protection agencies, delineate evacuation routes, emergency vehicle routes for emergency response and, where possible, alternative routes where congestion or road failure could occur.
- EI-2 Require major developments to provide access and funding for firefighting services adequate for the proposed development.
- EI-3 Update the City of Loyalton Emergency Response Plan that identifies specific response procedures and responsibilities for responding to emergency situations and that includes regular testing of the Plan at appropriate intervals.
- SSP-1 Minimize risk to life and property from seismic activity.
- SSP-2 Include seismic safety considerations in public utility systems improvements and expansions.
- SSP-3 Continue implementation of Uniform Building Code in construction.
- SSP-4 Plan for appropriate densities and types of land use on sloped lands.



- FP-1 Maintain the present level of fire protection in developed areas and extend the same or greater level of service to new developments. (Land Use Element)
- FP-2 Ensure that fire safety is considered when capital improvements (such as water line extensions) and development proposals are planned.
- FI-1 Continued review of all new development projects by the Loyalton Fire Department.
- FI-2 Cooperation with the Loyalton Fire Protection Department in sizing new water lines and locating hydrants.
- FI-3 Improve water system capabilities as they affect fire protection.

As such, the City is committed to integrating the MJHMP into the General Plan Safety Element by means of Mitigation Action 2.

3.4.2 Development and Permitting Capabilities

Jurisdictions regulate land use through the adoption and enforcement of zoning, subdivision and land development ordinances, building codes, building permit ordinances, floodplain, and stormwater management ordinances. When effectively prepared and administered, these regulations can lead to hazard mitigation. Development and permitting capabilities are presented in Table 3-4.

Table 3-4. Development and Permitting Capabilities

Criterion	Response
Does your jurisdiction issue development permits?	Yes
If no, who does? If yes, which department?	City Hall, with site plan submittal to contract planner
Does your jurisdiction track permits by hazard area?	No
Does your jurisdiction have a buildable lands inventory?	Yes, in the General Plan

3.4.3 Fiscal Capabilities

Assessing a jurisdiction’s fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 3-5.

Table 3-5. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
<i>If yes, specify:</i> Water and Sewer	
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	None



Opportunities to Expand Fiscal Capabilities

The City’s limited budget/resources limits its ability to improve capacity for needed public services to the extent that it is very challenging to address current and future fiscal capabilities. This continues to be a challenge as the City continues to lose population, thus reducing revenue, while at the same time trying to maintain ever-increasing costs for providing needed municipal services.

The primary objective for the City of Loyalton to participate in this planning process is to pursue FEMA HMA grant funding opportunities. HMA funding streams typically require a 25 percent match. The City has identified potential match funding sources in the assessment of capabilities. The overall plan maintenance strategy includes an annual agenda item to seek contract support for grant-writing when needed to pursue HMA grants. Additionally, the City sees needs to expand fiscal capabilities with funding for community and capacity building and has included Mitigation Action 7 to address this need.

3.4.4 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 3-6.

Table 3-6. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	Yes
<i>If Yes, Department /Position:</i> Contract Planner	
Engineers or professionals trained in building or infrastructure construction practices	Yes
<i>If Yes, Department /Position:</i> Contract Building Inspector from Plumas County	
Planners or engineers with an understanding of natural hazards	Yes
<i>If Yes, Department /Position:</i> Contract Planning Director	
Staff with training in benefit-cost analysis	Yes
<i>If Yes, Department /Position:</i> Volunteer grant-writer from Plumas County	
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	No
Grant writers	No
Procurement Services and Management	No

Opportunities to Expand Administrative and Technical Capabilities

The City is limited in administrative and technical capabilities and therefore will seek expansion by implementing Mitigation Action 7.

3.4.5 Education and Outreach Capabilities



Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 3-7.

Table 3-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No, but the Sierra County Sheriff's Office is relied upon for major notifications. Notices are sent in water bills, on Post Office bulletin boards and at Leonard's Market.
Do you have personnel skilled or trained in website development?	The City Mayor does minor updates to the website.
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<i>If yes, briefly describe:</i>	City Council, Volunteer Fire Fighters, Rotary Club helps with fuels reduction
Do you have any other programs in place that could be used to communicate hazard-related information?	Yes
<i>If yes, briefly describe:</i>	Planning Director makes amendments to Website.
Do you have any established warning systems for hazard events?	No

Opportunities to Expand Education and Outreach Capabilities

The City's limited budget/resources restricts its ability to pay for education and outreach capabilities. However, regular City Council meetings and maintaining a public website provide for potential education and public outreach opportunities. The City is committed to increasing education and outreach capabilities by identifying Mitigation Actions 4 and 6 to implement during this MJHMP performance period.

3.4.6 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction's capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 3-8.

Table 3-8. Community Classifications

	Participating?	Classification	Date Classified
FIPS Code	Yes		N/A
UEI No.	N/A	N/A	N/A
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A



Public Protection (ISO for Fire)	Yes	6/6x	N/A
StormReady	No	N/A	N/A
Firewise	Yes	N/A	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

3.4.7 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 3-9.

Table 3-9. Adaptive Capacity for Climate Change

Criterion		Jurisdiction Rating ^a
Technical Capacity		
Jurisdiction-level understanding of potential climate change impacts.		Low
<i>Comment:</i>	Update of the Safety Element in 2026 will include climate adaptation and improve Council’s understanding of adaptive capacity for climate change.	
Jurisdiction-level monitoring of climate change impacts.		Low
Technical resources to assess proposed strategies for feasibility and externalities.		Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory.		Low
<i>Comment:</i>		
Capital planning and land use decisions informed by potential climate impacts		Low
<i>Comment:</i>	Update of the Safety Element in 2026 will include climate adaptation and improve Council’s understanding so that decisions may soon be informed. The local hazard mitigation plan and Safety Element should contain policies and programs for City and County collaboration to address climate impacts. The City will need to rely on the County and other partner agencies to help reduce vulnerabilities to climate change.	
Participation in regional groups addressing climate risks		Low
<i>Comment:</i>	Through City Council	
Implementation Capacity		
Clear authority/mandate to consider climate change impacts during public decision-making processes		Low
<i>Comment:</i>	Currently as mandated by the California Environmental Quality Act through review of development projects.	



Criterion		Jurisdiction Rating ^a
Identified strategies for greenhouse gas mitigation efforts		Low
Identified strategies for adaptation to impacts		Low
Champions for climate action in local government departments		Low
Political support for implementing climate change adaptation strategies		Unsure
Financial resources devoted to climate change adaptation		Low
Local authority over sectors likely to be negative impacted		Unsure
<i>Comment:</i>	Currently as mandated by the California Environmental Quality Act through review of development projects.	
Public Capacity		
Residents' knowledge of and understanding of climate risk		Unsure
<i>Comment:</i>	Need public workshop and survey	
Residents' support of adaptation efforts		Unsure
<i>Comment:</i>	Need public workshop and survey	
Residents' capacity to adapt to climate impacts		Unsure
<i>Comment:</i>	Need public workshop and survey	
Local economy current capacity to adapt to climate impacts		Unsure
Local ecosystems capacity to adapt to climate impacts		Unsure
<i>Comment:</i>	Need public workshop and survey	

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The Countywide Drought Plan is currently underway and is targeted to increase awareness of adaptation due to the drought hazard.

3.5 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Flooding is the costliest natural hazard in the United States. Community participation in the NFIP opens up opportunity for additional grant funding associated specifically with flooding issues. Assessment of the jurisdiction's current NFIP status and compliance provides planners with a greater understanding of the local flood management program, opportunities for improvement, and available grant funding opportunities. Information on NFIP compliance is presented in Table 3-10.



Table 3-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Sierra County Building/Planning
Who is your floodplain administrator? (department/position)	Sierra County Director of Planning
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2021
Does your floodplain management program meet or exceed minimum requirements?	Exceeds. 1-foot freeboard.
When was the most recent Community Assistance Visit or Community Assistance Contact?	2006 done and included a final report. 2009 City of Loyalton had a CAV. Loyalton has been responsible for their own since. 2013. 2015, but no final resolution for the report.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	None
Are any RiskMAP projects currently underway in your jurisdiction?	Yes, underway, but the maps do not accurately reflect risk. Currently in the third round of revisions.
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	No. Sierra Valley mapping is not complete.
Does your floodplain management staff need any assistance or training to support its floodplain management program?	Yes
<i>If so, what type of assistance/training is needed?</i>	Three or four County staff members need training for floodplain management, but no training has been identified. No CFMs on the County staff; needed for floodplain administrator.
Does your jurisdiction have a Substantial Damage Response Plan?	No
How does your jurisdiction assess substantial damages?	Assessed by a contracted appraiser and the floodplain administrator. An assessment of all structures has not been done. No inventory of homeowners interested in elevations.
Does your jurisdiction participate in the Community Rating System (CRS)?	No
<i>If yes, is your jurisdiction interested in improving its CRS Classification?</i>	N/A
How many flood insurance policies are in force in your jurisdiction? ^a	8
<i>What is the insurance in force?</i>	\$1,518,000
<i>What is the premium in force?</i>	\$14,718
How many total loss claims have been filed in your jurisdiction? ^a	10
<i>What were the total payments for losses?</i>	\$133,803

a. According to FEMA statistics as of 12/31/2024



Opportunities to Expand NFIP Capabilities

The City relies on Sierra County for NFIP capabilities. The County has identified Mitigation Action 26 in the Sierra County (Unincorporated Area) Annex in this volume of the MJHMP as an opportunity to expand this capability by obtaining Certified Floodplain Manager training for the Floodplain Administrator.

Refer to General Plan Public Health Safety Element Policies and Programs as follows:

- FHP-1 Reduce damage from flooding. (Housing Element)
- FHP-3 Prevent drainage problems in future developments.
- FHP-4 Encourage basinwide or regional drainage planning for the area. (Open Space and Conservation Element)
- FHP-5 Consider flood control mitigation for the flood control channel of Smithneck Creek. The City must coordinate with Fish & Game as this area is under their jurisdiction.
- FHP-6 The City will require drainage plans to delineate the FEMA 100-year floodplain for all subdivision and multi-family projects to avoid or mitigate the potential flood hazard.
- FHI-1 Implement a flood damage prevention ordinance and other regulations related to flood prevention.
- FHI-2 Review dam failure inundation maps for safety consideration.
- FHI-3 Cooperate with FEMA in keeping flood hazard maps up-to-date.
- FHI-4 Require measures, which mitigate to acceptable levels (1 hour runoff) runoff from future projects.
- FHI-5 The City should seek appropriate methods for drainage along Smithneck Creek.
- FHI-6 The City of Loyalton shall establish AB1600 Development Impact Fees for storm drains and all new development shall pay the required fee.

3.6 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

3.6.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **General Plan Public Health and Safety Plan.** Update in accordance with Program 3-3-2, of the General Plan Safety Element to address SB 379 regarding climate adaptation and to incorporate provisions of the MJHMP into the General Plan.



3.7 RISK ASSESSMENT

3.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 3-11 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 3-11. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildfire	2024 Bear Fire	N/A	N/A	No structures were burned, but fencing was damaged and fire suppression damage.
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Moderate snow added to an already heavy mountain snow-pack, bringing snow removal challenges for mountain highways, with travel delays and periods of chain controls. There were embedded thunderstorms with small hail in the foothills and heavy snow showers in the mountains. Moderate flooding and road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	A wet system brought periods of heavy rain with flooding. Heavy rain fell bringing widespread roadway flooding, as well as local mudslides, flash flooding, with evacuations ordered in some areas. Thunderstorms with large hail, strong damaging winds and tornadoes were reported. Strong winds gusting to 55 to 75 mph brought down numerous trees and powerlines across the area, causing widespread and extended power outages.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	The Loyaltan Fire began on 8/14/2020, and was active for 12 days, burning over 47,000 acres.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Impacts to staffing capacity countywide.
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	A storm system brought wind damage to trees, thunderstorms with hail, and snow accumulating down into the foothills of the Sierra and Coastal Range. Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Two significant waves of precipitation associated with an atmospheric river brought heavy rain and higher elevation (mainly above 6500 feet) snowfall to northeast California. Flooding from creeks covered the intersection of Highways 49 and 89 in Sierraville. Shallow water



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				was photographed up against buildings at the Sierraville Ranger Station. A washout caused the closure of Highway 49 between Sattley and Yuba Pass. Severe flooding and road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.
Flood	2008 January Storms	2008-01	1/5/2008	Snowfall totals of 3 to 11 feet were reported in the northern Sierra Nevada Mountains, with winds up to and possibly exceeding 100 mph coupled with heavy snow bringing blizzard conditions.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Storm after storm affected northern and central California with extreme precipitation impacting the Sierra County region. Road and highway damage, slides, trees down, power outages, flooding.
Flood	Extreme Rainfall	2005-07	11/7/2005	Snow levels were 4,000 to 5,500 feet and snow amount up to 18 inches in the higher elevations. \$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Sierra County experienced severe flooding due to a series of powerful storms that brought heavy rain and rapid snowmelt from the Sierra Nevada mountains. This event was part of a larger, devastating flood across Northern California, triggered by an atmospheric river. The storms led to widespread inundation, levee breaches, and significant damage to infrastructure and property in the region. Highest recorded flooding, peak flow 45,500 cfs. 12 structures destroyed, at least 40 others damaged, debris clearance, emergency protective measures, and significant highway and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	A powerful Pacific jet stream brought heavy precipitation. These storms, exacerbated by a moderate to strong El Nino, resulted in significant damage and loss of life. The storms caused flooding on both large and small rivers, with some areas experiencing record-breaking flow rates. Storm damage countywide approximately \$250,000.
Flood	Severe Winter Storm, Mudslides and Landslides, and Flooding	DR-979-CA 93-01	2/3/1993	Sierra County experienced flooding and road closures. Damaged structures, roads, utilities from flooding, mudslides, rockslides, trees falling, and an avalanche.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire 8500 acres.
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	A series of powerful storms brought intense rain and snow to Northern and Central California, causing widespread flooding, mudslides, and significant damage, particularly in Sierra County. \$1.3 million in Damage Sierra County. Damage to homes, motels, roads, and utilities.
Flood	Heavy Rains and Flooding	82-03	4/1/1982	In April 1982, Sierra County experienced severe storms and flooding. The storms brought heavy rainfall and snowmelt, leading to overflowing rivers and streams, causing significant damage to infrastructure and property.
Flood	1980 April Storms	80-01 thru 80-25	4/1/1980	Significant flooding was experienced across California, with the Sierra Nevada and its foothills experiencing substantial runoff.
Drought	Drought	EM-3023-CA	1/20/1977	Drought conditions impacted the entire County during one of the driest years on record in California.
Flood	Severe Storms and Flooding	DR-253-CA	1/26/1969	A series of storms caused significant flooding across the state, with the San Joaquin basin, Sacramento basin, central coast drainages, and the Truckee River and Honey Lake basins being heavily impacted. Warm air during the storms resulted in rain falling at high elevations, contributing to melting snowpack and increased runoff in the Sierra Nevada. Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees.
Flood	Heavy Rains and Flooding	DR-183-CA	12/24/1964	The Christmas flood of 1964 caused significant flooding in Sierra County as part of a larger disaster affecting multiple northwestern states. This event was characterized by heavy rainfall, melting snow, and frozen ground, leading to extreme runoff and devastating floods. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	The 1963 floods in Sierra County were caused by a warm-type storm that brought heavy rainfall to the Sierra Nevada mountains. The storm resulted in rapid stream rises and flood peaks. Peak flow 40,000 cfs - North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at 2 million dollars. Two houses destroyed and many others with substantial damage.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Fire	1960 Major Fires	No number	8/16/1960	Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian Hill, Slug Canyon Ridge, Mountain House burn. Electrical interruptions between Downieville and Sierra City.

3.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for Loyalton is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the City in identifying hazards that pose the most significant threat. Table 3-12 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.

Table 3-12. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	0	0	0	0	0	0	None
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.30	.80	.10	.30	2.7	Medium
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.30	3.0	High
Flood	.90	.30	.20	.10	.30	1.8	Low
Landslide/Mass Movement	0	0	0	0	0	0	None
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	.90	.30	.80	.40	.30	2.7	Medium
Winter Storm	1.2	.60	.80	.10	.30	3.0	High

3.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this sub-section.



Repetitive Loss Properties

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 0
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: N/A

Other Noted Vulnerabilities

Based on a review of the results of the risk assessment, public involvement strategy, and other available resources, the primary vulnerability for the City of Loyalton is the challenge with extremely limited financial and staffing capacity.

Figure 3-1. City of Loyalton NEHRP Seismic Site Class

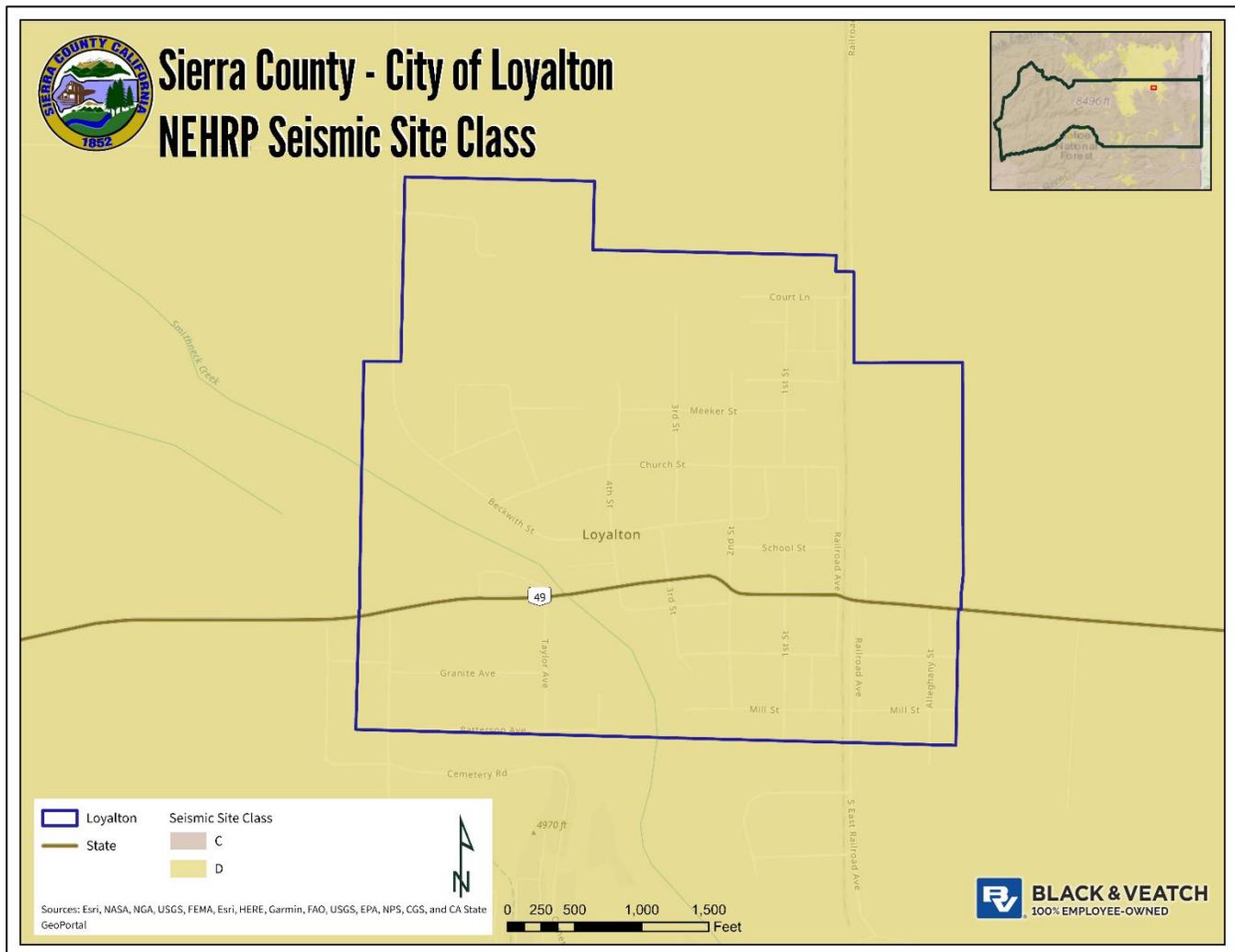




Figure 3-2. City of Loyalton Potential Earthquake Scenario: Mohawk Valley M7.13

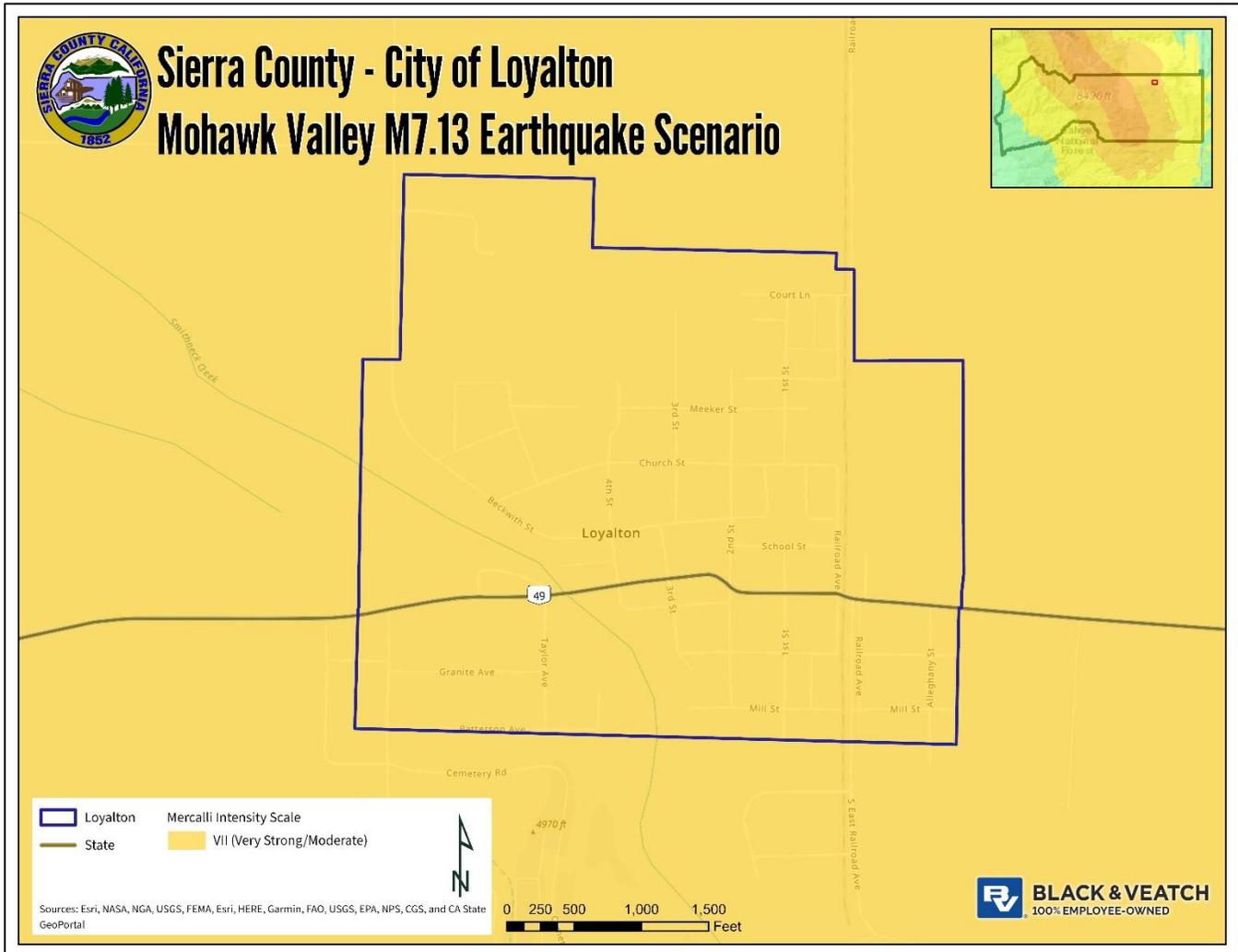




Figure 3-3. City of Loyalton Potential Earthquake Scenario Polaris M6.79

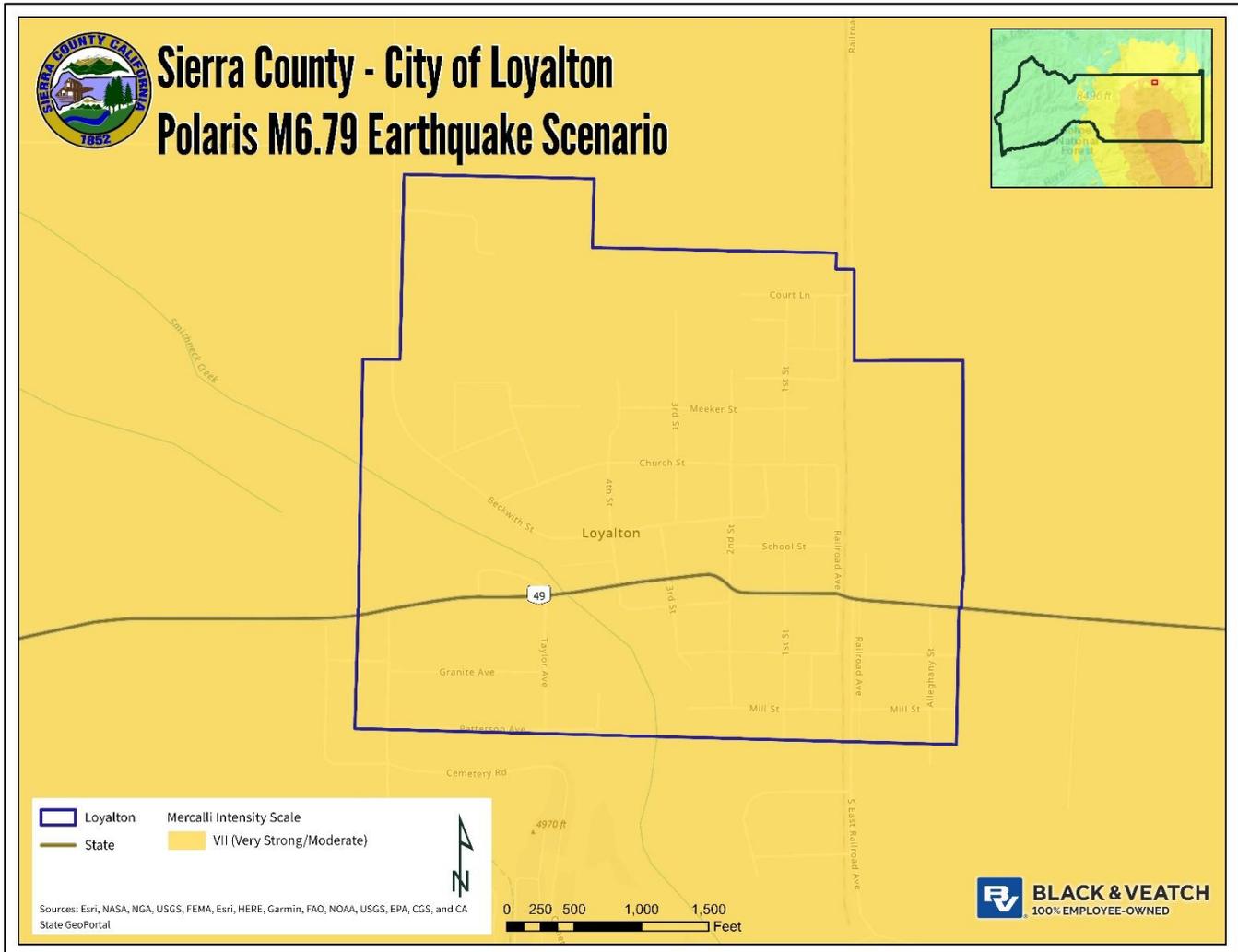




Figure 3-4. City of Loyalton FEMA 1-Percent Annual Chance Flood Zones

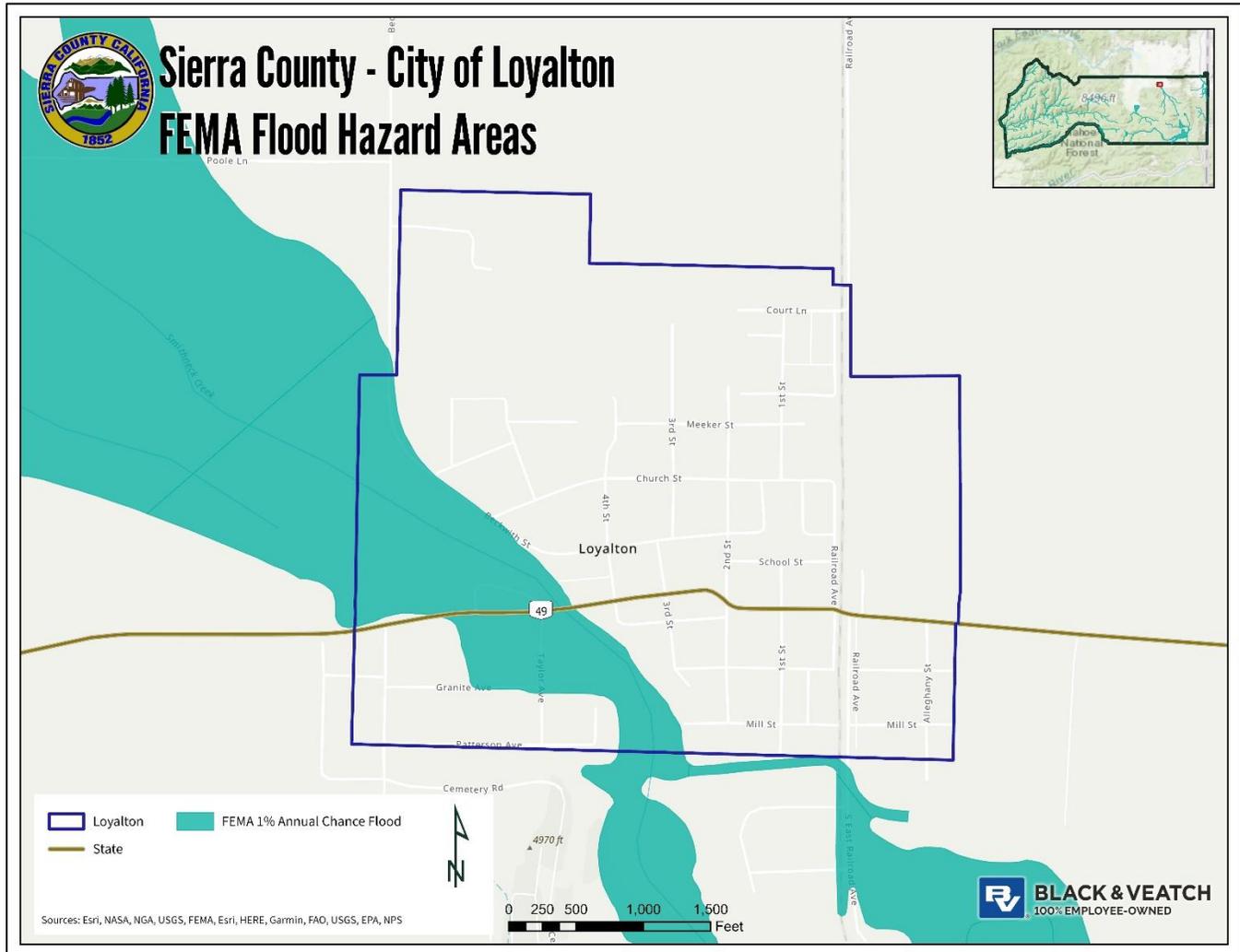




Figure 3-5. City of Loyalton DWR Flood Awareness Areas

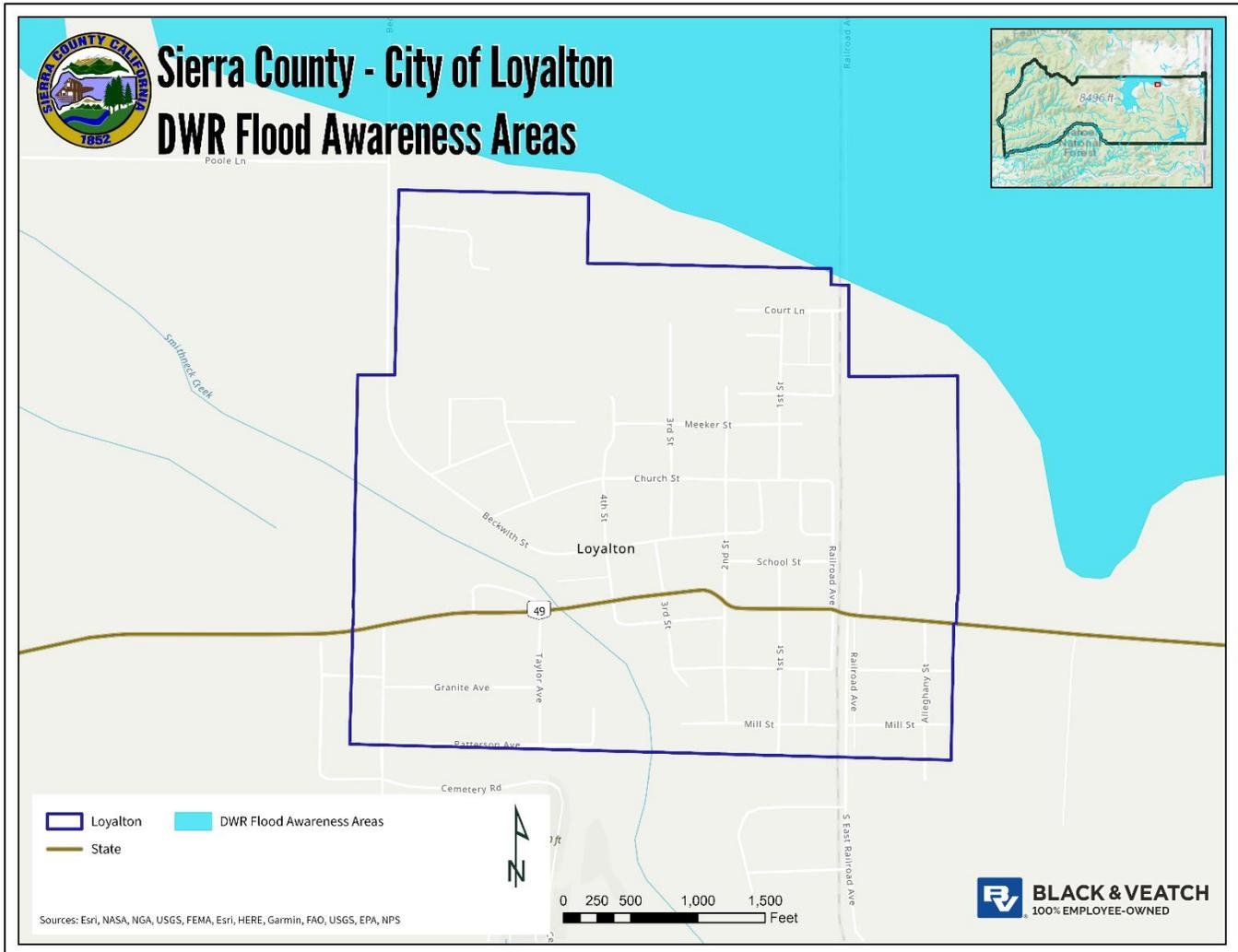




Figure 3-6. City of Loyalton Landslide Susceptibility

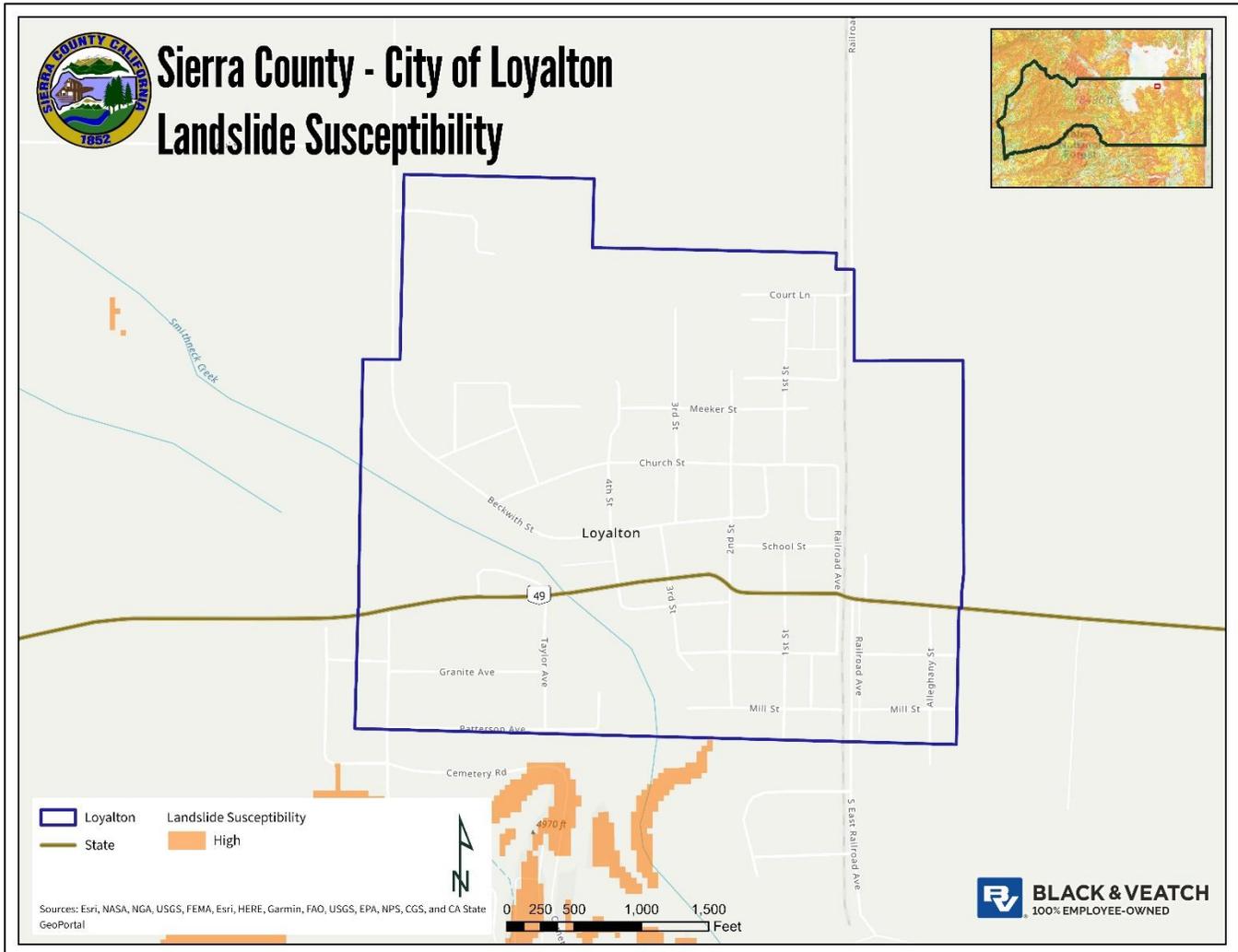




Figure 3-7. City of Loyalton Fire Hazard Severity Zones

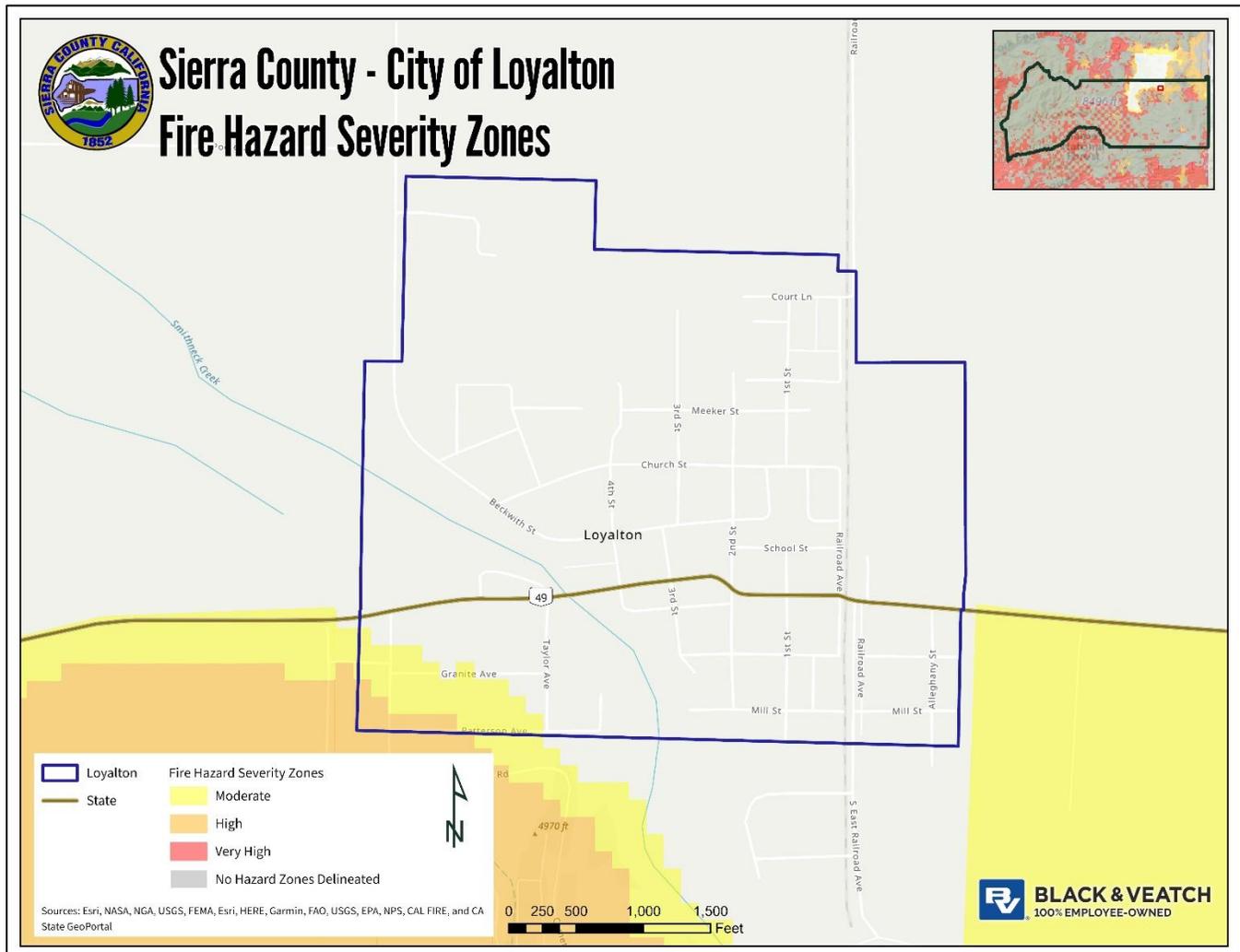
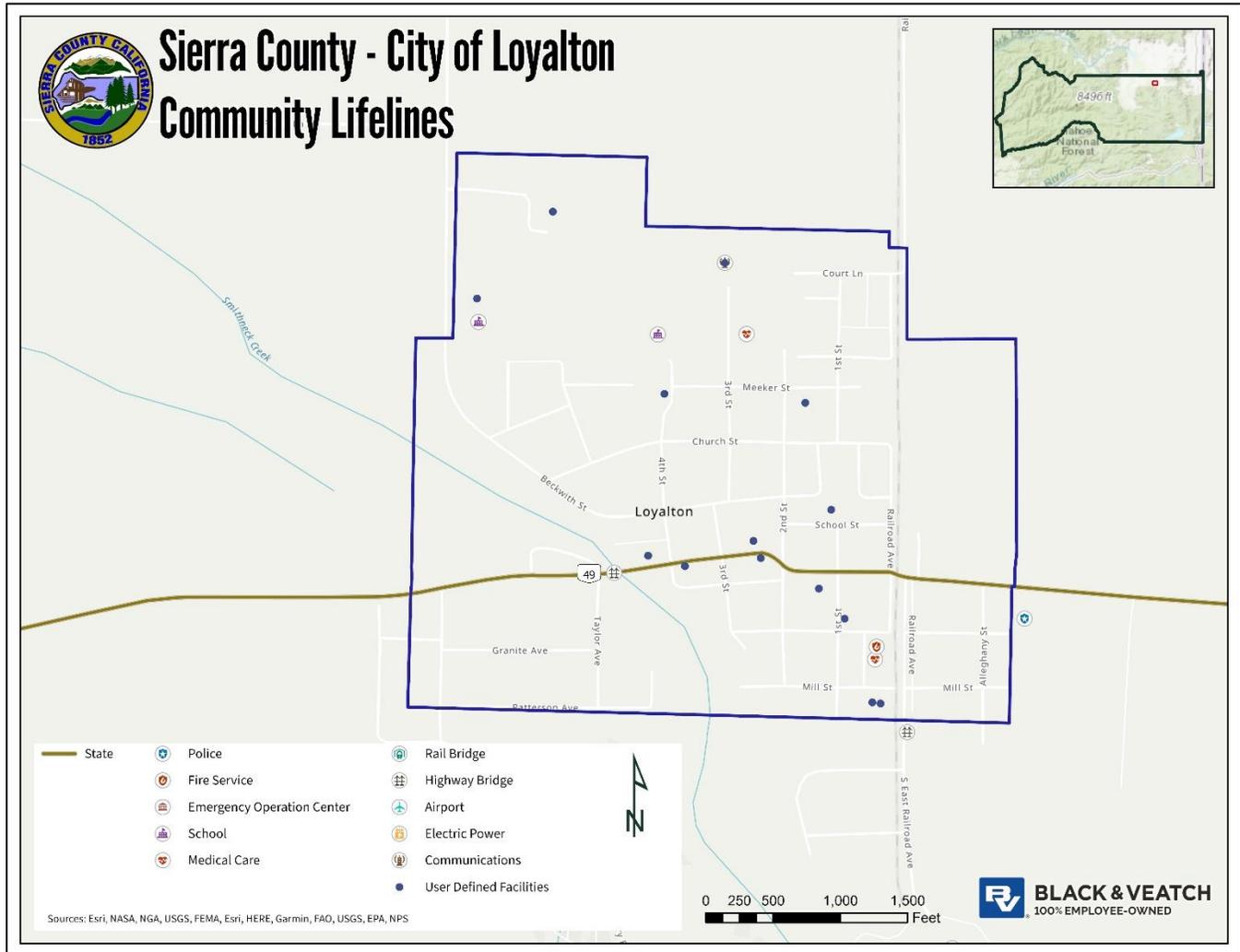




Figure 3-8. City of Loyalton Community Lifelines





3.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 3-13. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: City Council	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans, ordinances and programs that dictate land use decisions in the community, including: <ul style="list-style-type: none"> • General Plan. • CWPP. 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: City Council	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements: <ul style="list-style-type: none"> • Enforce the flood damage prevention ordinance. • Participate in floodplain identification and mapping updates. • Provide public assistance / information on floodplain requirements and impacts. 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	1, 3, 5	Lead: City Council	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
4	Identify and pursue strategies to increase adaptive capacity to climate change including but not limited to the following: <ul style="list-style-type: none"> • Updating the General Plan for compliance with SB 379. 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation;	New and Existing	3, 4, 5	Lead: City Council	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
	<ul style="list-style-type: none"> Educating community members through public workshops and surveys. 	HazMat; Water Systems						
5	Purchase generators for City-owned critical facilities and infrastructure that lack adequate backup power.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: City Council	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
6	Develop a fuels reduction program to include the following: <ul style="list-style-type: none"> Educate community members about defensible space. Provide assistance to establish defensible space. Haul removed fuels to the dump. 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 2, 3, 4, 5	Lead: City Council	Medium (\$50,000-\$250,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
7	Seek funding for community and capacity building to increase citywide staffing support.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	5	Lead: City Council	Low (\$0-\$50,000)	FEMA HMGP	Short-Term (less than 5 years)
8	Retrofit the existing fire station with larger bay doors that comply with current seismic codes and that can accommodate the new engines.	Safety & Security	Existing	1, 3, 5	Lead: City Council	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
9	Support the Countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	5	Lead: City Council	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Table 3-14. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	3	3	3	3	3	1	1	1	3	3	0	3	3	3	3	39	High
4	0	0	1	1	3	0	1	3	3	3	3	3	1	1	1	28	Medium
5	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	42	High
6	3	3	3	3	3	0	3	3	3	3	0	3	3	3	3	45	High
7	1	1	3	3	3	0	0	0	3	1	3	3	3	3	3	37	Medium
8	3	3	3	3	3	0	0	3	3	3	0	0	3	3	3	41	High
9	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	42	High



Table 3-15. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					N/A	N/A		■		■	N/A		■	■
2	■					■	N/A	N/A	■	■	■	■	N/A	■	■	■
3	■		■	■	■	■	N/A	N/A				■	N/A			
4	■				■	■	N/A	N/A	■		■	■	N/A		■	■
5						■	N/A	N/A		■	■	■	N/A	■	■	■
6	■					■	N/A	N/A					N/A		■	
7						■	N/A	N/A	■	■	■	■	N/A	■	■	■
8		■				■	N/A	N/A					N/A		■	
9	■					■	N/A	N/A	■	■	■	■	N/A	■	■	■



3.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction’s needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 3-16.

Table 3-16. Public Outreach

Local Outreach Activity	Date	Number of People Involved
Meals on Wheels delivery drivers distribution of paper copies of the hazard awareness survey	Throughout the planning process	Approximately 30
Local newspaper	Throughout the planning process	Consistent with number of subscribers
City Hall display of paper copies of the survey with postage-paid envelopes	Throughout the planning process	Approximately 75 people every week

Figure 3-9. Public Hazard Awareness Flyer and Survey Distribution at Loyalton City Hall (left) Spaghetti Feed Flyer for Community Engagement (right)





3.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **2024-29 Housing Element Update adopted February 18, 2025.** Population, housing, and cited policies and programs.
- **Loyalton General Plan adopted June 16, 2015.** Policies and programs cited related to hazard mitigation.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit.** The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



4. ALLEGHANY COUNTY WATER DISTRICT



Source: Alleghany County Water District

4.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Alleghany County Water District. Members are listed in Table 4-1.

Table 4-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Rae Bell Arbogast, General Manager	Name and Title:	Edda Snyder
Address:	P.O. Box 860 Alleghany, CA 95910	Address:	P.O. Box 860 Alleghany, CA 95910
Phone Number:	530-287-3454	Phone Number:	530-287-3223
Email:	alleghanywater@gmail.com	Email:	Original1621@gmail.com
Contributors:			
Name and Title:	Rae Bell Arbogast, General Manager		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, prepared first draft of annex.		
Name and Title:	Bruce Coons, Chief Water Operator		
Method of Participation:	Annex Consultation/Review		
Name and Title:	Edward Snyder, Water Distribution Operator		
Method of Participation:	Annex Consultation/Review		



4.2 JURISDICTIONAL PROFILE

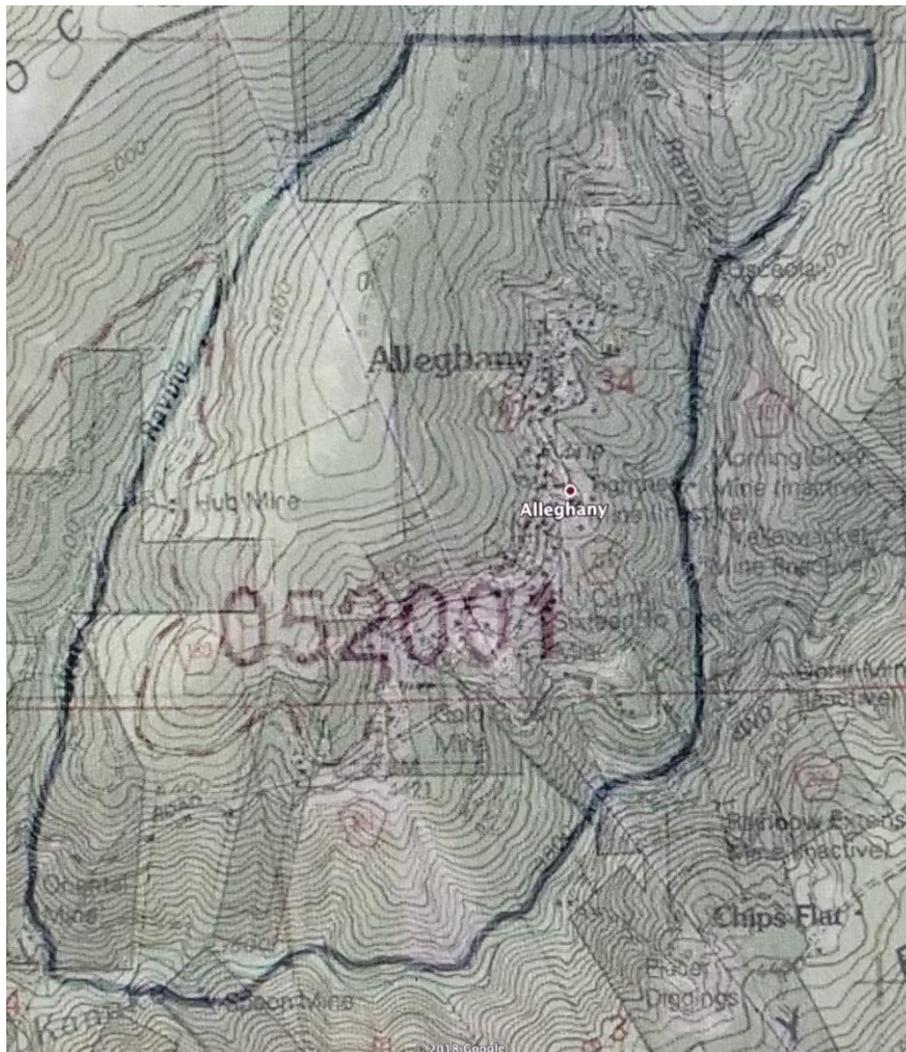
4.2.1 Overview

Alleghany County Water District (ACWD) was established on March 8, 1938. ACWD's mission is to provide safe, reliable, and affordable water service to its customers and to provide water resources for fire suppression. The District's water comes from a spring. ACWD currently employs a staff of four part time employees. Funding for the District comes primarily from water service rates charged to customers.

4.2.2 Service Area

ACWD's service area is the town of Alleghany and covers an area of approximately 1 square mile (Figure 4-1). Alleghany is located at 39°27'52.7"N 120°50'55.8"W, north of Sacramento, California, and west of Reno, Nevada. As of January 2025, the district has 50 active customer accounts that serve approximately 80 residents.

Figure 4-1. Alleghany County Water District Service Area





4.2.3 Governing Body

ACWD is governed by an elected five-member Board of Directors, which assumes responsibility for the adoption of this plan. The General Manager and Water Operators will oversee the plan's implementation.

4.2.4 Assets

Asset	Value
Property	
Alleghany	\$101,000
Equipment	
Equipment	\$2,000
Historical Church Building	\$22,000
Total:	\$24,000
Critical Facilities	
Water System (includes main storage tank, pumphouse, and water mains).	\$2,000,000
Total:	\$2,000,000

4.3 CURRENT TRENDS

According to the Alleghany County Water District Management's Discussion and Analysis Of Operations of June 30, 2024, Alleghany County Water District (ACWD) was established on March 8, 1939, to provide water to the town of Alleghany for both domestic use and fire protection.

When the district was formed, Alleghany had a population of approximately 586 (1940 US Census). The most recent census (2020) recorded 55 full-time residents. This represents a 90% decrease in the population over 80 years. It is notable that the change in population between the 2010 and 2020 census was a decrease of only three individuals. This is the first time in approximately 80 years that the census data has not recorded a significant decrease in the town's population. Currently, ACWD has 50 active customer accounts. ACWD does not anticipate needing to expand services anytime in the near future.

4.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

4.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 4-2.



Table 4-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Emergency Response Plan (includes risk analysis)	Adopted October 2021 reviewed in 2023, (every 2 years)	Completed by ACWD staff with the help of a Technical Assistance Grant awarded by the State Water Quality Control Board State Revolving Fund (SRF)
Drought Response Plan Ordinance No. 35	Adopted 6/28/2016	The plan is put in place when/if drought conditions warrant restricting water use.
Policies and Procedures	Updated regularly	Customer service policies and ordinances are updated as needed. Policies are also reviewed on a regular basis.
Water Quality Emergency Notification Plan	April 2023	On file with the State Division of Drinking Water, updated as needed.

Opportunities to Expand Planning and Regulatory Capabilities

The District periodically applies for and has received several Technical Assistance Grants through the California Water Quality Control Board, including a Technical, Management, and Financial Analysis completed in 2021. The District also regularly seeks advice from regulators and other districts. The District is a member of the California Special District's Association and participates in their online forum with other districts.

The District is committed to expanding this capability by implementing Mitigation Action 2 to integrate the Emergency Response Plan with this MJHMP.

4.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 4-3.

Table 4-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Not without grant funding
Authority to Levy Taxes for Specific Purposes	Taxes must be approved by voters
User Fees for Water, Sewer, Gas or Electric Service	Yes
<i>If yes, specify:</i>	Water Service Fees
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No



Opportunities to Expand Fiscal Capabilities

The primary objective for the District to participate in this planning process is to pursue FEMA HMA grant funding opportunities. HMA funding streams typically require a 25 percent match. The District has identified potential match funding sources in the assessment of capabilities. The overall plan maintenance strategy includes an annual agenda item to seek contract support for grant-writing when needed to pursue HMA grants.

Recently completed projects demonstrating fiscal capabilities:

In 2015 the district was awarded a loan with debt forgiveness (grant) from the Water Resources Control Board's State Revolving Fund for a Planning and Engineering Analysis of the ACWD storage tank and water sources.

The primary objective of the planning project was to find the most sustainable way to supply the town's drinking water in compliance with State and Federal Drinking Water Standards. The two major concerns at that time were the poor condition of the main water storage tank and treatment plant. The lack of water source redundancy was also a concern. Changing the main water source (the Ram Spring) from "ground water under the influence of surface water" to "ground water" was a known way to reduce water production costs. Because of environmental concerns about drilling at the Spring site, the district was encouraged by the State Engineers to try vertical test wells. Two vertical wells would have solved both the surface water and the redundancy issues if successful. However, the vertical test wells were not successful (inadequate water quantity and quality).

After the vertical test wells proved unviable, in May 2017, as part of the planning project, horizontal driven pipes were installed at the Ram Spring to minimize surface water infiltration. As a result of this drilling, and with subsequent water quality testing; on October 20, 2017, the State Division of Drinking water amended the Permit for the Ram Spring changing its classification to "ground water". This new classification eliminates the need for a treatment plant and lessens several regulatory requirements, saving both time and money over the long-term.

The water tank portion of the planning project was completed in 2016 and a new funding agreement for construction of the water tank was executed on July 20, 2017. The new water storage tank was put online in November 2018 but started leaking in October 2021. Warranty work to repair the water tank was done in 2024. Funding has been awarded from the State Regional Water Quality Control Board to provide engineering oversight for the warranty repairs, plus the addition of Cathodic Protection (two separate agreements). As of March 2025, the Cathodic Protection project has not been completed and the warranty repair work on the water tank has not been signed-off.

The water source redundancy portion of the original planning project had to be abandoned due to budget constraints. This is an area that needs to be addressed within the framework of Hazard Mitigation. Currently the town relies on a single water source.

The Ram Spring portion of the Planning Project was completed on December 1, 2020, and an application for construction was started immediately. The funding agreement for the Ram Spring Construction



Project was signed in October 2023 (after the close of this fiscal year) and is for up to 1.5 million dollars. Engineering and design work is in progress with on-the-ground work expected to commence in 2025.

4.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 4-4.

Table 4-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	No
Engineers or professionals trained in building or infrastructure construction practices	No
Planners or engineers with an understanding of natural hazards	No
Staff with training in benefit-cost analysis	No
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	No
Grant writers	Yes
<i>If Yes, Department /Position:</i> General Manager	
Procurement Services and Management	No

Opportunities to Expand Administrative and Technical Capabilities

The district periodically applies for and has received several Technical Assistance Grants through the California Water Quality Control Board, including a Technical, Management, and Financial Analysis completed in 2021. The district also regularly seeks advice from regulators and other districts. The District is a member of the California Special District's Association and participates in their online forum with other districts.

Severe budget constraints prevent the district from hiring administrative staff. The district relies on many volunteer hours to maintain operations (including the time invested to complete this annex).

4.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 4-5.



Table 4-5. Education and Outreach Capabilities

Criterion		Response
Do you have a public information officer or communications office?		No
Do you have personnel skilled or trained in website development?		Yes
Do you have hazard mitigation information available on your website?		No
<i>If yes, briefly describe:</i>	Much of it contains confidential or sensitive information that should not be made public. ACWD has a new website as of November 2024, and information is still being added to the site.	
Do you use social media for hazard mitigation education and outreach?		No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?		No
Do you have any other programs in place that could be used to communicate hazard-related information?		Yes
<i>If yes, briefly describe:</i>	The website features an alert system and a list of phone numbers (PHONE TREE) is maintained as part of the emergency notification plan. Also, the County’s Dept. of OES can broadcast messages to residents if requested.	
Do you have any established warning systems for hazard events?		Yes
<i>If yes, briefly describe:</i>	See Above	

Opportunities to Expand Education and Outreach Capabilities

The lack of low-cost internet in the community does impact the District’s ability to reach out in certain ways. Most residents have internet but there is no internet at the district’s facilities due to the cost.

The District is committed to supporting countywide outreach mitigation action listed in Volume 1 CW-1: *Continue to maintain a website that will house the multi-jurisdictional HMP and any amendments to it adopted during the next 5-year period to provide the Planning Partners and the public with ongoing access to the plan and its implementation.*

4.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 4-6.

Table 4-6. Community Classifications

	Participating?	Classification or Number	Date Classified
FIPS Code	No	N/A	N/A
UEI No.	No	N/A	N/A
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	No	N/A	N/A
StormReady	No	N/A	N/A
Firewise	Yes	N/A	2021



Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

4.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 4-7.

Table 4-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	High
<i>Comment:</i> See Page 4 of the emergency response plan.	
Jurisdiction-level monitoring of climate change impacts	Medium
<i>Comment:</i> Water flow from the Spring is monitored weekly.	
Technical resources to assess proposed strategies for feasibility and externalities	Unsure
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	High
<i>Comment:</i> Current State Funded Project will increase wildfire hardening around the town’s main water source.	
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Medium
<i>Comment:</i> Climate change impacts are considered for planning projects.	
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Medium
<i>Comment:</i> See Emergency Response Plan.	
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Medium
Financial resources devoted to climate change adaptation	Low
<i>Comment:</i> District lacks its own financial resources to do more than keep the operation going.	
Local authority over sectors likely to be negatively impacted	Low
Public Capacity	
Residents’ knowledge of and understanding of climate risk	High
<i>Comment:</i> Wildfire danger is high on everyone’s list of concerns.	
Residents’ support of adaptation efforts	High
<i>Comment:</i> Residents understand the situation.	



Residents' capacity to adapt to climate impacts		Low
<i>Comment:</i>	Many elderly and financially disadvantaged residents lack resources to do simple things like clearing vegetation around their houses.	
Local economy current capacity to adapt to climate impacts		Low
<i>Comment:</i>	The population of Alleghany lacks the resources to clear and thin the overgrown forest that is present both within and immediately surrounding the community.	
Local ecosystems capacity to adapt to climate impacts		High
<i>Comment:</i>	Nature adapts with or without humans.	

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District's Emergency Operations Plan update may be an opportunity to address the drought hazard with this MJHMP's risk assessment data.

4.5 INTEGRATION

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

4.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Firewise community effort; wildfire is a huge concern for the town and the district contributes hours to the effort.
- The district is looking for grant opportunities to assist in the following areas: Fire hydrant replacement/upgrade and Water Redundancy Study (started with 2015 State Funded Planning Project but hit a dead-end due to budget constraints).
- Emergency Response Plan - The District reviews and updates hazard risks in this plan every 2 years. The results of the risk assessment for this MJHMP will be used in future updates to the Emergency Response Plan.
- Ram Spring Improvement Project. The Ram Spring Improvement Project (RSIP) will reconfigure the facilities at the Ram Spring to accommodate the changes made during the planning project (installation of driven pipes and removal of the treatment plant) and to address a few other issues based on the alternatives analysis completed as part of the Planning Project. A major component



of this project is to bring existing facilities (the pumphouse) into compliance with Urban/Wildland Interface regulations. Additionally, tree removal on the property to protect the driven pipes from tree root intrusion has the added advantage of creating a large defensible space around the Ram Spring facilities.

- The District's Emergency Response Plan, Drought Contingency Plan, and Emergency Notification Plan are all an integral part of the district's ability to Mitigate hazards.

4.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (**Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.**). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

4.7 RISK ASSESSMENT

4.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 4-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 4-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildland Fire	None	None	4/20/2025	Firetrucks filling up with hydrant created a water hammer that caused a cap on an abandoned line to pop. Water service was turned off to about one-third of the town for about 20 hours. The system lost pressure and the district had to submit special water tests to the State Division of Drinking Water.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	The bank across from the pumphouse eroded further. The 16 to 1 mine's water tank ended up down the hill. Many trees fell as well.
Storm	December 2021 Storms	2022-03	12/30/2021	Extended power outage. The district relied on its back-up generator to supply the town's water. Several residential water lines froze causing water leaks when they thawed out resulting in higher than normal water usage.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	In-person public meetings were not held. Remote meeting were used.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	The entire hillside at the Cumberland Spring slid making access unsafe and ending a feasibility investigation for developing it as a secondary water source.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Drought	Drought Conditions	Governor's executive order B-29-15	2014-2015	The State Regional Water Quality Control Board issued a curtailment order on post 1914 Water rights. Water flow from the Ram Spring was at an all-time low. The district had to implement its drought contingency plan.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	A section of Main Street in Alleghany near pumphouse slid. Road was closed for over a year.
Flood	Extreme Rainfall	2005-07	11/7/2005	\$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Section of Main Street in Alleghany near pumphouse slid. Road was closed for over a year.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow Snow	DR-1046-CA 95-03	3/12/1995	Problems with silt in spring water. State dictated that the District must put in a treatment plant.
Snow	Severe Winter Storm, Mudslides and Landslides, and Snow	DR-979-CA 93-01	2/3/1993	Hydrants and pumphouse buried in snow. Extra man-hours required to keep things functioning.
Fire	1988 Fire	No number	May 1988	Massive water usage, fire burned five structures on Main Street in Alleghany.
Heavy Snow	Severe Storms and Snow accumulation	DR-758-CA 86-01	2/21/1986	Road closed due to heavy snow, hydrants and pumphouse buried.
Heavy Snow	12 feet of snow in Alleghany	82-03	4/1/1982	Road closed due to heavy snow, hydrants and pumphouse buried.
Heavy Snow	1980 April Storms	80-01 thru 80-25	4/1/1980	Road closed due to heavy snow, Hydrants buried.
Drought	Drought	EM-3023-CA	1/20/1977	Spring flow lower than usual. Town had to conserve water.

4.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 4-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.



Table 4-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.30	.30	.40	.40	.30	1.7	Low
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.30	.30	.40	.10	.30	1.4	Low
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

4.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- The District lacks a secondary water source. Currently, the town has one water source and one water tank location. This creates a vulnerability if anything should happen at either the spring site or the water tank site.
- The fire hydrants will be 50 years old in 2027. The hydrants need to be upgraded and mounted on risers to help prevent burial by snow. Most winters the hydrants must be shoveled out by hand.
- The District lacks funding for hiring any full-time staff. The District relies on volunteers to keep it functioning. A lack of human resources and adequate funding is a major vulnerability for ACWD.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.



4.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 4-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: General Manager Support: Board of Directors	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • The District’s Emergency Response Plan 	Water Systems	New and Existing	3, 5	Lead: General Manager Support: Chief Water Operator	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: General Manager Support: Bookkeeper and Chief Water Operator	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
4	Develop secondary water source and second water tank location.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	New	2, 3	Lead: General Manager Support: Bookkeeper/ Board of Directors	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time, General Fund	Long-Term (5 years or more).
5	Upgrade the town's fire hydrants and put them on risers.	Safety & Security; Water Systems	Existing	2, 3, 5	Lead: General Manager Support: Chief Water Operator, Bookkeeper	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
6	Support the Countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	5	Lead: General Manager Support: Board of Directors	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)



Table 4-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	0	0	3	3	3	0	1	3	3	3	0	0	3	3	3	32	Medium
5	3	3	3	3	3	0	0	0	3	3	3	3	3	3	3	41	High
6	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	39	High

Table 4-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards										
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms	
1		■					■	N/A		■		■	■	■	■	■	
2	■					■	■	N/A	■	■	■	■	■	■	■	■	
3	■					■	■	N/A	■	■	■	■	■	■	■	■	
4						■		N/A	■								
5		■				■		N/A				■			■		
6	■					■	■	N/A	■	■	■	■	■	■	■	■	



4.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction's needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 4-13.

Table 4-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
Monthly board meetings open to the public	2 nd Tuesday of the month	8 to 12 in attendance, plus 32 on email list for meeting materials
Water Bill inserts	As needed	80
Website	As needed	New site has notification system, not fully used yet. Only about five people have signed up so far.
Post Office Bulletin Board	As needed	Estimate 25

4.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **Alleghany Water District Audit Report for Fiscal Year ended 6/30/2024** – The Management's Discussion and Analysis portion of this document was used for Overview, Current Trends, Opportunities to Expand Administrative, and Technical and Financial Capabilities.
- **Balance Sheet** used to complete asset information.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



5. DOWNIEVILLE FIRE PROTECTION DISTRICT



Figure 5-1. Downieville Fire Medical Emergency Response at Gold Lake

Credit: Steve Folsom

5.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Downieville Fire Protection District. Members are listed in Table 5-1.

Table 5-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Steve Folsom, Captain	Name and Title:	Frank Lang, Commissioner Chair
Address:	PO Box 25, Downieville, CA 95936	Address:	PO Box 25, Downieville, CA 95936
Phone Number:	530 289-3333	Phone Number:	530 289-3333
Email:	sjfsrt49@att.net	Email:	foekj@gmail.com
Contributors:			
Name and Title:	Steve Folsom, Captain / AEMT		
Method of Participation:	Attended Steering Committee/Planning Partner meetings,		
Name and Title:	Diane Wharff, Emergency Medical Support (EMS) Admin. / Lieutenant / AEMT		
Method of Participation:	/ Commissioner / LVN Planning Process		
Name and Title:	Tegan Harrington, NREMT-Paramedic / EMS Operations Manager		
Method of Participation:	Planning Process		
Name and Title:	Frank Lang, Commissioner Chair / Nurse Practitioner		
Method of Participation:	Planning Process		



5.2 JURISDICTIONAL PROFILE

5.2.1 Overview

The Downieville Fire Protection District (DFPD) was established by the Sierra County Board of Supervisors under Fire Protection District Law of 1987, of the State of California Health and Safety Law.

The mission of the Downieville Volunteer Fire Department (DVFD) is to protect and preserve the health, safety, and property of all persons residing in, working in, and visiting the communities.

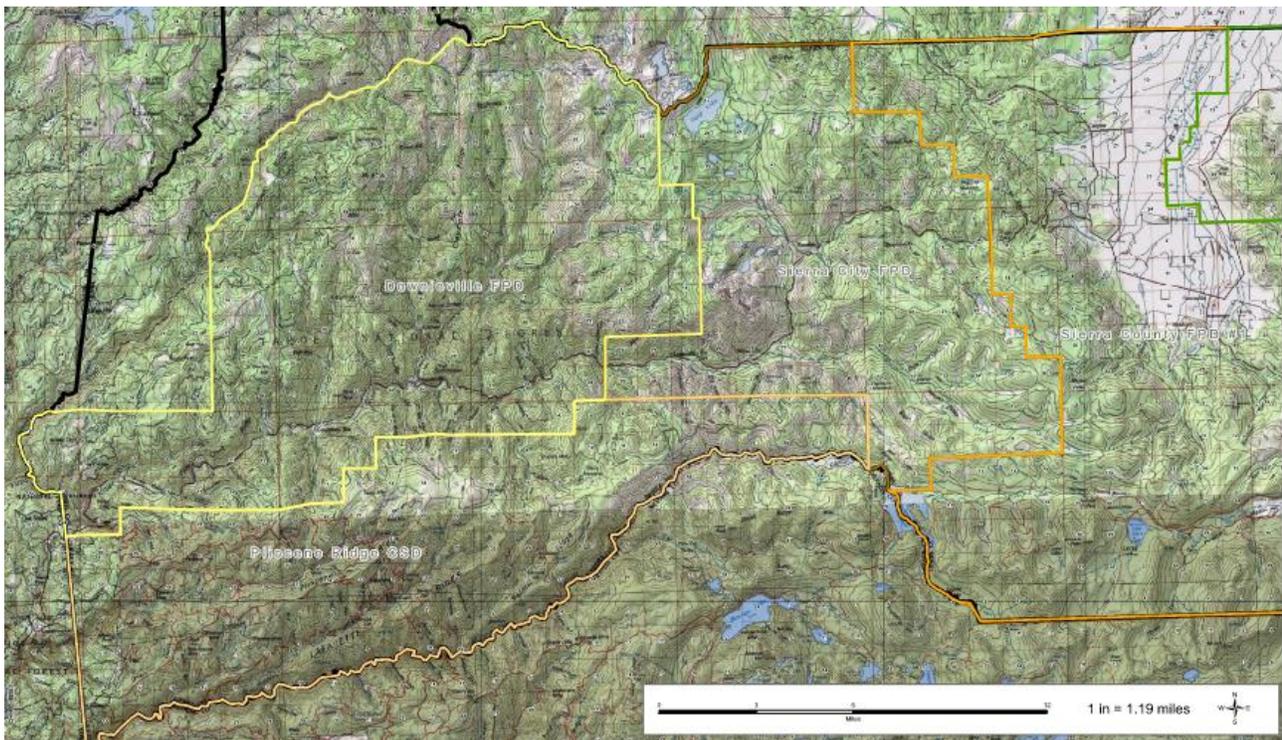
It is a volunteer department that strives to provide the highest level of service to the citizens, businesses, and the public. The DVFD is dedicated to a high standard of training and maintenance of facilities and equipment, by ensuring that the services provided are at the highest level to all. It works to create strong bonds with the community and will interact with neighboring fire departments and other county emergency response providers. The members of this department have chosen to be a part of a team that takes pride in and representing this mission through dedication, integrity, and service.

The District currently employs a medical and administrative staff of three and has 14 volunteer firefighters. The DFPD is the governing agency responsible for Downieville Volunteer Fire Department, the Downieville Ambulance, and the oversight for the district taxes.

The District participates in the Public Protection Class Rating System and currently has a rating of 6/6.

5.2.2 Service Area

Figure 5-2. Downieville Fire Protection District Service Area (yellow outline)





The District serves an area of approximately 161 square miles and an estimated 404 residents and provides fire protection and EMS services to the communities of Downieville, Goodyears Bar, Indian Valley, and Bee Ranch.

5.2.3 Governing Body

The District is governed by an elected five-member Board of Commissioners, which assumes responsibility for the adoption of this plan. The Fire Chief or designee will oversee the plan's implementation.

5.2.4 Assets

Asset	Value
Property:	
Station 2 Foundry Property, 160 Pearl St., Downieville, CA (0.50 acre)	\$120,000
Equipment:	
7380 Type 1 Structure Engine, 1986 Pierce Dash 750 Gallons	\$150,000
7340 Rescue, 1999 Ford F450 AWD	\$120,000
7360 Type 2 Structure / Wildland, 2018 Ford F550 AWD 300 Gallons	\$240,000
7362 Type 6 Wildland 1999 Ford F550 Pierce Pumper AWD 200 Gallons	\$120,000
7391 Water Tender 1991 Ford L8000 Diesel 3000 Gallons	\$300,000
7341 Ambulance Type I (A), 2016 Ram 4500 Leader AWD	\$240,000
7342 Ambulance Type II (B), 2000 Ford E350 Leader 4X4	\$180,000
7343 Type I (A) 1996 Chevy 3500 Wheeled Coach AWD	\$100,000
7344 Rescue / EMS, 1996 Jeep Cherokee 4X4	\$60,000
7346 EMS / Command 2012 Chevy Tahoe 4X4	\$90,000
3000' 2-1/2" Synthetic Fire Hose	\$15,000
All other hose and brass	\$50,000
All other equipment: Portable pumps, generators, scene lights, etc.	\$300,000
Total:	\$1,965,000.00.00
Critical Facilities	
Station 1, 321 Main Street, Downieville, CA 95936 0.11 acre	\$300,000
Station 2, Foundry, 160 Pearl Street, Downieville, CA 95936 0.50 acre	\$1,500,000
Station 3, 100 Court House Square, Downieville, CA 95936 0.1 acre	\$120,000
District Office, 10 Smokey Lane, Downieville, CA 95936 0.1 acre	\$80,000
Total:	\$2,000,000.00.00

5.3 CURRENT TRENDS

No significant changes. The District has maintained static growth. Automatic aid is provided to the Sierra City Fire District for all EMS calls and structure fires. This can expand the population served to 639 and increases coverage to 336 square miles.



5.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

5.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 5-2.

Table 5-2. Planning and Regulatory Capabilities

Plan, Study, or Program	Date of Most Recent Update	Comment
Sierra County Community Wildfire Protection Plan (CWPP)	Update submitted 02/10/2025	The 2025 plan should be finalized 06/2026
Construction Plan Check and Building Inspections		Sierra County Building Department ensures this
Fire Code and Restriction Enforcement		Provided by Sierra County Sheriff's Office
Firehouse Expansion Plan		Joint Fire Station with USFS ongoing
Fire Investigation		State Fire Marshall office for investigation / USFS for Wildland Fire
Downieville Fire Protection District Strategic Plan	Updated as necessary	Ongoing

Opportunities to Expand Planning and Regulatory Capabilities

The District is currently participating in the ongoing update to the Community Wildfire Protection Plan.

5.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 5-3.



Table 5-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	AFG, USDA
Authority to Levy Taxes for Specific Purposes	\$60 per developed parcel Downieville, Sierra City. Sunsets 06/30/2029. 600 Developed Parcels
User Fees for Water, Sewer, Gas, or Electric Service	No
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Transient Occupancy Tax: EMS Advanced Life Support	Varies between \$50,000-\$60,000
	100% Tax Funded

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

5.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 5-4.



Table 5-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	N/A
<i>If Yes, Department /Position:</i>	
Engineers or professionals trained in building or infrastructure construction practices	N/A
<i>If Yes, Department /Position:</i>	
Planners or engineers with an understanding of natural hazards	N/A
<i>If Yes, Department /Position:</i>	
Staff with training in benefit-cost analysis	Limited
<i>If Yes, Department /Position:</i>	Commissioner
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	No
Grant writers	No
Procurement Services and Management	Yes
<i>If Yes, Department /Position:</i>	EMS Administrator, EMS Operations Manager, Bookkeeper, Board Secretary

Opportunities to Expand Administrative and Technical Capabilities

The District is committed to expansion of this capability through Mitigation Action 5: Increase capacity for essential staff including:

- Paramedic
- Fire Chief
- EMT/Ambulance Operators

5.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 5-5.

Table 5-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<i>If yes, briefly describe:</i>	Sierra County Fire Safe
Do you have any other programs in place that could be used to communicate hazard-related information?	Yes
<i>If yes, briefly describe:</i>	Everbridge
Do you have any established warning systems for hazard events?	Yes
<i>If yes, briefly describe:</i>	Fire Siren



Opportunities to Expand Education and Outreach Capabilities

The District is committed to supporting countywide outreach mitigation action listed in Volume 1 CW-1: *Continue to maintain a website that will house the multi-jurisdictional HMP and any amendments to it adopted during the next 5-year period to provide the Planning Partners and the public with ongoing access to the plan and its implementation.*

5.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction's capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 5-6.

Table 5-6. Community Classifications

	Participating?	Classification or Number	Date Classified
FIPS Code	No	N/A	N/A
UEI No.	Yes	ZH31KM8HA85	N/A
Community Rating System	N/A	N/A	N/A
Building Code Effectiveness Grading Schedule	N/A	N/A	N/A
Public Protection	Yes	6/6 X	June 1, 2017
StormReady	No	N/A	N/A
Firewise	No	N/A	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

5.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction's ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community's adaptive capacity for the impacts of climate change is presented in Table 5-7.



Table 5-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	Low
Local authority over sectors likely to be negative impacted	Low
Public Capacity	
Residents' knowledge of and understanding of climate risk	Low
Residents' support of adaptation efforts	Low
Residents' capacity to adapt to climate impacts	Low
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District has not identified a need to expand adaptive capacity capabilities.

5.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

5.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or



enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Sierra County Community Wildfire Protection Plan (CWPP)
- Downieville Fire Protection District Strategic Plan
- Sierra County Fire Safe and Watershed Council

5.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (**Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3**). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

5.7 RISK ASSESSMENT

5.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 5-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 5-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees
Storm	December 2021 Storms	2022-03	12/30/2021	Downed powerlines, power failures, trees down on houses
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	Standby No Significant Impacts
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Increased urgent care calls Increased medical responses
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides and downed trees



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				caused structural damage to houses and other structures
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Road and highway damage, slides, trees down power outages, flooding
Flood	Extreme Rainfall	2005-07	11/7/2005	\$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Highest recorded flooding, Peak flow 45,500 cfs. 12 structures destroyed, at least 40 others damaged, debris clearance, emergency protective measures, Significant highway and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	Storm damage countywide approximately \$250,000.
Flood	Severe Winter Storm, Mud & Land Slides, & Flooding	DR-979-CA 93-01	2/3/1993	Damaged Structures, roads, utilities from flooding, mudslides, rockslides, trees falling and an avalanche
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire 8,500 acres. DFPD provided direct support to hand crews, A tanker shuttled water up to the fire and an engine patrolled Highway 49 and managed to river pump stations 24 hours a day.
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	\$1.3 million in Damage Sierra County. Damage to homes, motels, roads and utilities. Peak flow 29,000 csf
Flood	Severe Storms and Flooding	DR-253-CA	1/26/1969	Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees
Flood	Heavy Rains and Flooding	DR-183-CA	12/24/1964	Peak flow 37,600 cfs. 30 inches of rain in 10 days on moderate snow pack. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	02/1963 Peak flow 40,000 cfs - North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at 2 million dollars. Two houses destroyed and many others with substantial damage
Fire	1960 Major Fires	No number	8/16/1960	Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian Hill, Slug Canyon Ridge, Mountain House burn. Electrical Interruptions between Downieville and Sierra City.

5.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the Downieville Fire Protection District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 5-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.

Table 5-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.30	.80	.10	.30	2.7	Medium
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.30	3.0	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.13.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.30	3.0	High



5.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

No additional jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources.



5.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 5-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: Commissioner Chair Support: Captain (Steve Folsom)	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • CWPP 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: Captain (Steve Folsom)	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Captain (Steve Folsom)	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
4	Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: Commissioner Chair	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
5	Consolidate stations to one location in a lower risk area with construction	Safety & Security; Health & Medical	Existing	1, 3, 5	Lead: Commissioner Chair	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff	Long-Term (5 years or more)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
	methods that comply with current building standards.				Support: Captain (Steve Folsom)		Time, General Fund	
6	Increase capacity for essential staff including: <ul style="list-style-type: none"> • Paramedic • Fire Chief • EMT/Ambulance Operators 	Safety & Security; Health & Medical	Existing	1, 3, 5	Lead: Commissioner Chair Support: Captain (Steve Folsom), Diane Wharff, Corie Schiemann	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
7	The fire districts in Sierra County have water supply apparatus for firefighting; however, there is a need to add additional equipment and apparatus. Each fire district will conduct an inventory of current equipment and identify additional needs to help in fighting fires. Once determined, the County will work with the fire districts to identify funding options and apply for funding. This includes replacement of obsolete, outdated aging apparatus/rolling stock for the District Coordinates with Sierra County (Unincorporated Area) Action #16	Health and Medical; Safety and Security; Water Systems	Existing	2, 3, 5	Lead: Robert Hall Support: Captain (Steve Folsom)	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Short-Term (less than 5 years)
8	Communication update and standardization	Safety & Security; Health & Medical; Communications	Existing	1, 5	Lead: Captain (Steve Folsom)	High (\$250,000-\$1,000,000)		Short-Term (less than 5 years)
9	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	5	Lead: Commissioner Chair Support: Captain (Steve Folsom)	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
10	Pursue funding and contracts to retrofit critical facilities in the County including: <ul style="list-style-type: none"> Two 1950's vintage fire stations in Downieville Medical Clinic Building in Downieville Coordinates with Sierra County (Unincorporated Area) Action #17	Food, Hydration, Shelter; Health and Medical; Water Systems	New and Existing	2, 5	Lead: Commissioner Chair Support: Captain (Steve Folsom), Robert Hall	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, FMAG Grant, Staff Time, General Fund	Long-Term (5 years or more)

Table 5-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	1	3	3	3	3	0	0	0	3	3	3	0	3	3	3	36	High
6	3	3	3	3	3	0	0	0	3	1	3	3	3	3	3	40	High
7	3	3	3	3	3	0	0	3	3	3	0	3	3	3	3	43	High
8	3	3	3	3	3	0	0	0	3	3	3	3	3	3	3	44	High
9	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	42	High
10	3	3	3	3	3	0	0	3	3	3	0	0	3	3	3	43	High



Table 5-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	N/A		■		■	■		■	■
2	■					■	■	N/A	■	■	■	■	■	■	■	■
3	■					■	■	N/A	■	■	■	■	■	■	■	■
4						■	■	N/A		■	■	■	■	■	■	■
5		■				■	■	N/A		■	■	■	■	■	■	■
6						■	■	N/A		■	■	■	■	■	■	■
7						■		N/A							■	
8						■	■	N/A		■		■	■	■	■	■
9	■		■			■	■	N/A	■	■	■	■	■	■	■	■
10		■				■		N/A							■	



5.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction's needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 5-13.

Table 5-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
EMS Week	Annually in May	8
Nor-Cal EMS	Monthly	12
CPR Instruction provided by EMS Operations Manager / Paramedic	Various dates	varies
Sierra County Schools for Adults /CPR, EMR, EMT, AEMT	Various dates	varies

5.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **Community Wildfire Protection Plan** was consulted for the capability assessment.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



6. DOWNIEVILLE PUBLIC UTILITY DISTRICT



Source: Downieville Public Utility District

6.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Downieville Public Utility District. Members are listed in Table 6-1.

Table 6-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Billy Epps	Name and Title:	Paul Douville, General Manager
Address:	PO 650 Downieville CA 95936	Address:	PO 444 Downieville CA 95936
Phone Number:	530-277-7559	Phone Number:	530-289-2774
Email:	Billyepps@outlook.com	Email:	pdouville46@gmail.com
Contributors:			
Name and Title:	Paul Douville, General Manager		
Method of Participation:	Attended Steering Committee/Planning Partner meetings		
Name and Title:	Billy Epps, Consultant		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, developed this annex		



6.2 JURISDICTIONAL PROFILE

6.2.1 Overview

In 1885, a ditch from the early-named North Fork of the North Fork of the North Yuba (Downie River), which supplied water to the Gold Bluff Mine, was extended by the Costa Brothers to the M.A. Costa Ranch just above Zumwalt Flat to supply this Ranch. A few years later in 1890 this ditch was extended along the mountainside to a place above town on the north, higher on the hill than the Spaulding Flume, and supplied water to the reservoir which was located on the hill north of the Schoolhouse. A pipeline down the mountain from the end of the ditch delivered the water to the reservoir. This ditch, about 6 miles long, constituted the main water supply of Downieville until 1972 when the construction of the new closed-distribution system was completed.

Another early water system that collected water from several springs above the old Joseph Vollmar Orchard-Homestead across the then-named South Fork (North Fork of the North Fork of the Yuba River) from the present Mr. and Mrs. Ray Brett home on Commercial Street, was initially owned by Jack Wolfe. In later years it became the property of Mr. and Mrs. Homer J. Gould and was known as the Gould Water System. It supplied several homes on Commercial Street with their domestic water. The system was purchased in the 1950's by the William T. Reed, L.L. Huelsdonk, and James J. Sinnott families and now supplies these three homes while yard water for these homes is supplied by the Town system. Another water system was that which supplied water to the early Garibaldi and the later John Ponta ranch, also known as the property of Mr. and Mrs. Angus James. The sources of supply of the other water systems were not at an elevation sufficient to supply water to this Ranch, so another source had to be developed which consisted of a ditch about a mile long that secured its water from Coyoteville Ravine, a tributary to the North Yuba River. A spring in a ravine at the western end of the ranch provided domestic water for the Ponta home. This ditch has not been in use for over forty years. Today, the water pressure of the new system is adequate to supply the several homes which have been built on lots carved from this earlier Garibaldi and Ponta Ranches.

6.2.2 Service Area

The District serves an area of approximately 1.5 square miles and an estimated 230 residents and provides water services to the community of Downieville. Potable water is used for drinking and fire suppression. Approximately 80 fire hydrants (combination of standard hydrants and 2-inch stands) are located throughout the community.

6.2.3 Governing Body

The District is governed by an elected five-member Board of Directors, which assumes responsibility for the adoption of this plan. The District Board will oversee the plan's implementation.



6.2.4 Assets

Asset	Value
Property	
Plant property	\$ 800,000
Equipment	
Storage and contact tanks	\$ 4,000,000
Water supply infrastructure	\$ 9,000,000
Total:	\$\$13,000,000.00
Critical Facilities	
Water treatment facility	\$ 3,000,000
Total:	\$\$3,000,000.00

6.3 CURRENT TRENDS

The District has relatively consistent usage of 60,000 gallons daily in the winter and 170,000 gallons daily in the summertime. During hazard events that impact the number of visitors in the County, usage may change. For example, the 2011 snowpack shut down the summertime bike race and the 2019 wildfire reduced the number of riders who came to the event, which reduces summertime water usage.

The District does not anticipate changes in services. The service area experiences minimal development and the population served remains fairly unchanged.

6.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

6.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 6-2.

Table 6-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Emergency Bypass Restoration	1994	The District needs to develop a plan to address flume restoration
Consumer Confidence Report	2023	Annual water quality report
Drought Plan	2025 – in progress	Currently being developed as a countywide effort



Opportunities to Expand Planning and Regulatory Capabilities

The District will continue to comply with state requirements by producing an annual Consumer Confidence Report. The District is currently engaged in the development of the countywide Drought Plan. The District has developed *Mitigation Action 4: Assess flume that bypasses the first segment of water delivery and develop a plan for restoration to address the need for continuity of services.*

6.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 6-3.

Table 6-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas, or Electric Service	Yes
<i>If yes, specify:</i> Water Service Fees	
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

6.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 6-4.



Table 6-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	Yes
<i>If Yes, Department /Position:</i> Engineer Richard Melim	
Engineers or professionals trained in building or infrastructure construction practices	Yes
<i>If Yes, Department /Position:</i> Engineer Richard Melim	
Planners or engineers with an understanding of natural hazards	Yes
<i>If Yes, Department /Position:</i> Engineer Richard Melim	
Staff with training in benefit-cost analysis	No
Surveyors	Yes
<i>If Yes, Department /Position:</i> Engineer Richard Melim	
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	No
Grant writers	No
Procurement Services and Management	No

Opportunities to Expand Administrative and Technical Capabilities

Downieville is served by a WWII battleship generator that can provide emergency backup power to the entire town. Most of the town's lines are underground, not impacted by public safety power shutoffs. District support staff are committed to ensuring the reliability of this backup power.

6.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 6-5.

Table 6-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
Do you have any other programs in place that could be used to communicate hazard-related information?	Yes
<i>If yes, briefly describe:</i> Everbridge, Post Office door flyer	
Do you have any established warning systems for hazard events?	No

Opportunities to Expand Education and Outreach Capabilities

There is no current need for the District to expand education and outreach beyond what is already being done.



6.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 6-6.

Table 6-6. Community Classifications

	Participating?	Classification	Date Classified
FIPS Code	No	N/A	N/A
UEI No.	N/A	N/A	N/A
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	No	N/A	N/A
StormReady	No	N/A	N/A
Firewise	No	N/A	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

6.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 6-7.



Table 6-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	Low
Local authority over sectors likely to be negative impacted	Low
Public Capacity	
Residents’ knowledge of and understanding of climate risk	Low
Residents’ support of adaptation efforts	Low
Residents’ capacity to adapt to climate impacts	Low
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The Countywide Drought Plan is currently underway and is targeted to increase awareness of adaptation due to the drought hazard.

6.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

6.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration



opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Drought Plan** may reference information on the drought hazard in this MJHMP.

6.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (***Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.***). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

6.7 RISK ASSESSMENT

6.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 6-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 6-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees
Storm	December 2021 Storms	2022-03	12/30/2021	Downed powerlines, power failures, trees down on houses
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	Standby No Significant Impacts
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Increased urgent care calls Increased medical responses
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, and mudslides and downed trees caused structural damage to houses and other structures



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, and mud slides and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Road and highway damage, slides, trees down, power outages, and flooding
Flood	Extreme Rainfall	2005-07	11/7/2005	\$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Highest recorded flooding, Peak flow 45,500 cfs. Twelve structures destroyed, at least 40 others damaged; debris clearance, and emergency protective measure., Significant highway and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	Storm damage countywide approximately \$250,000.
Flood	Severe Winter Storm, Mudslides and Land Slides, and Flooding	DR-979-CA 93-01	2/3/1993	Damaged structures, roads, utilities from flooding, mudslides, rockslides, trees falling, and an avalanche
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire: 8,500 acres. DFPD provided direct support to hand crews, A tanker shuttled water up to the fire and an engine patrolled Highway 49 and managed to river pump stations 24 hours a day.
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	\$1.3 million in Damage Sierra County. Damage to homes, motels, roads, and utilities. Peak flow 29,000 csf.
Flood	Severe Storms & Flooding	DR-253-CA	1/26/1969	Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, and mudslides and downed trees
Flood	Heavy Rains & Flooding	DR-183-CA	12/24/1964	Peak flow 37,600 cfs. 30" of rain in 10 days on moderate snow pack. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	02/1963 Peak flow 40,000 cfs - North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at 22 million dollars. Two



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				houses destroyed and many others with substantial damage
Fire	1960 Major Fires	No number	8/16/1960	Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian Hill, Slug Canyon Ridge, and Mountain House burned. Electrical Interruptions between Downieville and Sierra City.

6.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 6-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.

Table 6-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.13.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

6.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:



- Crystal Mountain road subsidence, soil migration due to oversaturation. Utility line goes through this road.
- Flash flooding with biggest effect on the north side of Downieville.
- Cathodic protection from minerals in the soil. Current pipeline is steel/concrete lined.
- Need a computerized SCADA system for drought resilience and fire protection.

If within jurisdictional authority, mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.



6.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 6-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: General Manager	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • Drought Plan 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: General Manager	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	5	Lead: General Manager	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
4	Assess flume that bypasses the first segment of water delivery and develop a plan for restoration to address the need for continuity of services.	Food, Hydration, Shelter; Water Systems	Existing	2, 3	Lead: General Manager	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time, General Fund	Short-Term (less than 5 years)
5	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	5	Lead: General Manager	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
6	Develop a computerized SCADA system for drought resilience and fire protection	Food, Hydration, Shelter; Water Systems	Existing	3, 5	Lead: General Manager	High (\$250,000-\$1,000,000)	FEMA HMGP Grants,	Short-Term



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
							FMA Grant, Staff Time, General Fund	(less than 5 years)
7	Determine feasibility of replacing existing pipeline to provide cathodic protection from minerals in the soil. Current pipeline is steel/concrete lined.	Food, Hydration, Shelter; Water Systems	Existing	2, 3	Lead: General Manager	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)

Table 6-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	0	3	3	3	3	0	1	3	3	3	3	3	3	3	3	41	High
5	0	0	3	3	3	0	0	0	3	3	3	3	3	3	3	35	Medium
6	0	1	3	3	3	0	0	0	3	3	3	3	3	3	3	37	High
7	0	3	3	3	3	0	1	0	3	3	3	3	3	3	3	41	High



Table 6-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	N/A		■		■	■		■	■
2	■					■	■	N/A	■	■	■	■	■	■	■	■
3	■					■	■	N/A	■	■	■	■	■	■	■	■
4		■			■	■		N/A	■			■			■	
5	■					■	■	N/A	■	■	■	■	■	■	■	■
6						■		N/A	■						■	
7		■						N/A	■	■		■	■		■	



6.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction's needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 6-13.

Table 6-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
District staff supported the countywide outreach efforts for this plan	Throughout the planning process	About 200

6.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **Asset Records** were referenced for the capability assessment
- **Consumer Confidence Report** was referenced for the capability assessment

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



7. PLIOCENE RIDGE COMMUNITY SERVICES DISTRICT



Source: Pliocene Ridge Community Services District

7.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Pliocene Ridge Community Services District. Members are listed in Table 7-1.

Table 7-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Rae Bell Arbogast, District Manager	Name and Title:	Jim Buckbee, District Fire Chief
Address:	100 Pike City Road, Pike City, CA 95960	Address:	100 Pike City Road, Pike City, CA 95960
Phone Number:	530-287-3454	Phone Number:	530-301-5152
Email:	plioceneridge@gmail.com	Email:	snowplowpoet@yahoo.com
Contributors:			
Name and Title:	Rae Bell Arbogast, District Manager		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, completing first draft of annex for Pliocene Ridge CSD Board review		
Name and Title:	Jim Buckbee, District Fire Chief		
Method of Participation:	Input on annex prior to board review.		
Name and Title:	Edward Cusato, Assistant Fire Chief		
Method of Participation:	Input on impact of past events (works for County Road Dept)		



7.2 JURISDICTIONAL PROFILE

7.2.1 Overview

The formation of the district was initiated in 2003 with a petition signed by two-thirds of the registered voters within the district. The district was formed to secure tax-based funding for local fire services. The resolution to form Pliocene Ridge CSD was passed by the Sierra County Board of Supervisors and approved by LAFCO in February 2004. The district officially began operations on January 1, 2005.

The district serves primarily as a "Fire District" for Alleghany, Forest City and Pike City. It also acts as a "Streetlight District" for Alleghany and Forest City. Both the Alleghany and the Pike City Fire Departments operate under the authority of Pliocene Ridge CSD and are managed by the district.

Approximately 66% of the land within the district's boundaries is National Forest land that does not generate tax revenue.

The District participates in the Public Protection Class Rating System and currently has a rating of 05/5Y.

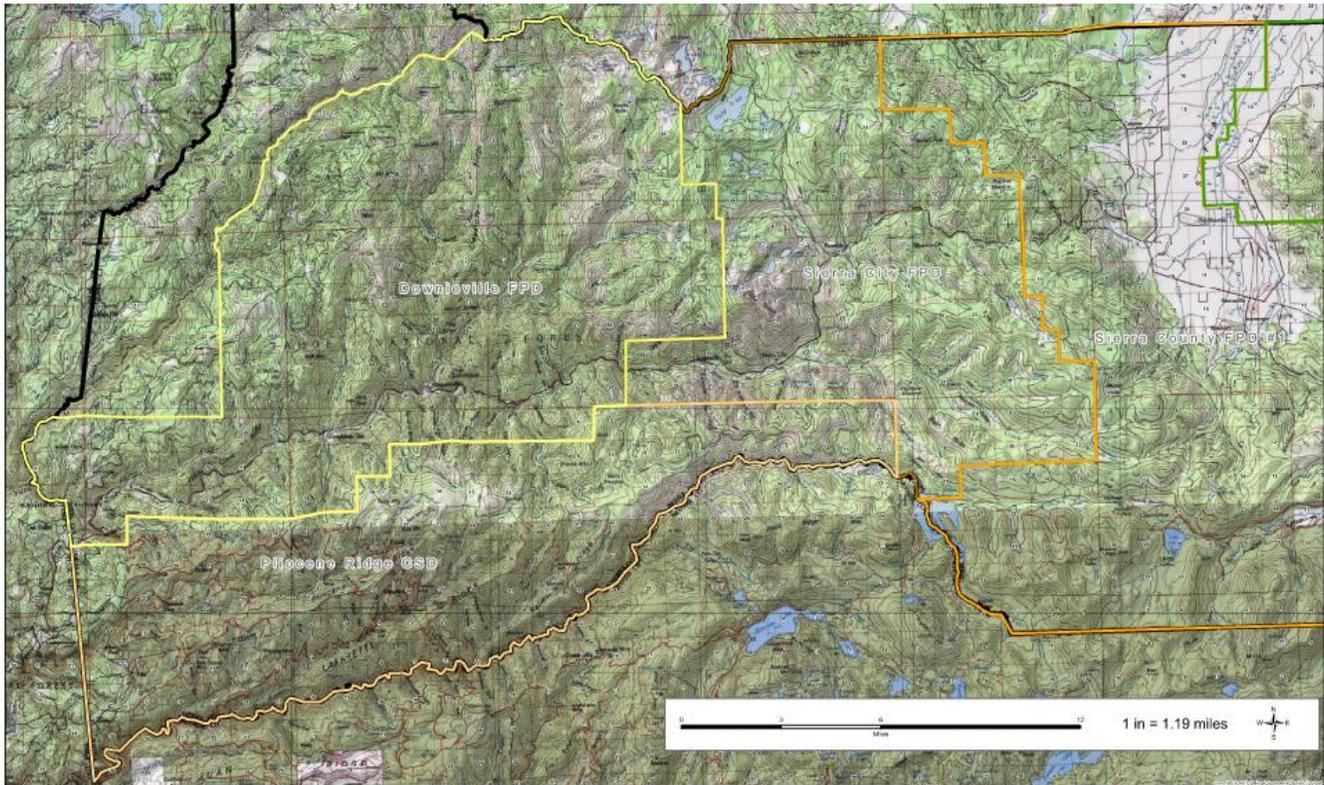
7.2.2 Service Area

Pliocene Ridge CSD covers an area of approximately 115 square miles bounded on the east by Jackson Meadows Reservoir; bounded on the west by the county line common between Sierra and Yuba Counties; bounded on the south by the county line common between Sierra and Nevada Counties; and bounded on the north by the watershed division of the North Yuba River.

Approximately 350 people reside in the District.



Figure 7-1. Pliocene Ridge Community Services District Service Area (tan outline)



7.2.3 Governing Body

The District is governed by an appointed five-member Board of Directors, which assumes responsibility for the adoption of this plan. The District Fire Chief and Manager will oversee the plan’s implementation.

7.2.4 Assets

Asset	Value
Property	
Parcel that Alleghany Station 1 sits on. 2004 Booked value.	\$ 11,387
Parcel that Pike City Firehouse sits on. 2004 Booked value.	\$ 3,453
Equipment	
Emergency Response Vehicles Pike	\$87,927
Emergency Response Vehicles Alleghany	\$41,822
Equipment Pike Fire Department	\$65,853
Equipment Alleghany Fire Department (Small tools and equipment are not included, only capitalized equipment listed above)	\$60,612
Total:	\$271,054
Critical Facilities	
Alleghany Firehouse Station 1	\$ 52,574



Asset	Value
2004 booked value (not replacement value)	
Pike City Firehouse 2004 booked value (not replacement value)	\$ 87,735
Alleghany Firehouse Station 2 (owned by Sierra County) Not on the District's books.	
Total:	\$140,309

7.3 CURRENT TRENDS

The Community of Pike is growing, becoming more of a “bedroom” community for people who work in western Nevada County. The community of Forest City is almost a “ghost town” with only two full-time residents. The remaining homes are second homes to people who don't live in Sierra County. The community of Alleghany did not experience a population decrease with the last census and this is the first time in 100 years that the town does not show a population decline from decade to decade. It remains to be seen if the population has stabilized or if it will continue to shrink.

Like Forest City, both Alleghany and Pike are experiencing an increase in the number of homes being used as “second homes” by people who do not live here full-time. This has a detrimental effect on efforts to stabilize fire and EMS services. Part-time residents rarely, if ever, join the volunteer fire departments, and if they do, their availability is minimal.

There is a severe decline in civic participation in the area. This has a negative impact on community organizations such as the fire departments, the fire department auxiliaries, and local non-profits.

The Firewise communities of Pike and Alleghany are administered by the manager of Pliocene Ridge CSD, and it is difficult to get committee members. It is difficult to get people to turn in their Firewise hours, even though much of the work can be seen from the roadways. Thankfully, Firewise USA has very minimal work requirements and individuals are allowed to turn in work that the County does along the roadways to help meet the quota.

7.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

7.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 7-2.



Table 7-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Firewise USA Community Risk Assessment (Pike and Alleghany)	2021	New Risk Assessments are due in 2026 (every 5 years)
Firewise USA Community Action Plans (Pike and Alleghany)	2023	New Action Plans are due in 2026 (every 3 years)
Standard Operating Guidelines	2022	This is the firefighter's handbook for emergency response standards of operation
Policies and Procedures	Regularly	Some of the policies deal with planning

Opportunities to Expand Planning and Regulatory Capabilities

The District is a member of the California Special District's Association and participates in their online forum with other districts.

The District needs to partner with CAL FIRE regarding defensible space advisor training. A few community members have expressed an interest in taking the training.

The District recently established a Capital Improvement Fund and will be working on a Capital Improvement Plan.

7.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 7-3.

Table 7-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Currently developing a CIP
Authority to Levy Taxes for Specific Purposes	Yes, but voter approval required
User Fees for Water, Sewer, Gas or Electric Service	N/A
Incur Debt through General Obligation Bonds	Not sure
Incur Debt through Special Tax Bonds	Not sure
Incur Debt through Private Activity Bonds	Not sure
Withhold Public Expenditures in Hazard-Prone Areas	N/A
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.* Additionally, the District is developing a Capital Improvement Plan based on the recently established Capital Improvement Fund.



7.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 7-4.

Table 7-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	No
Engineers or professionals trained in building or infrastructure construction practices	No
Planners or engineers with an understanding of natural hazards	No
Staff with training in benefit-cost analysis	No
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	Yes
<i>If Yes, Department /Position:</i> Jim Buckbee, District Fire Chief	
Grant writers	Yes
<i>If Yes, Department /Position:</i> Rae Bell Arbogast, District Manager	
Procurement Services and Management	No

Opportunities to Expand Administrative and Technical Capabilities

The District struggles to fulfill minimal critical administrative duties. A recent advertisement for help at minimum wage for a job previously filled by a volunteer for 10 years has gone unanswered. The District would be happy if it had more help covering basic administration let alone expanding.

The District relies on regional agencies and the County for assistance with administrative and technical assistance whenever help is available. The County’s GIS system is a good example of something that the special districts are supposed to have but lack the resources to create.

7.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 7-5.



Table 7-5. Education and Outreach Capabilities

Criterion		Response
Do you have a public information officer or communications office?		No
Do you have personnel skilled or trained in website development?		Yes
Do you have hazard mitigation information available on your website?		Yes
<i>If yes, briefly describe:</i>	The website has several pages under the header of Firewise plus a wildfire mitigation resource page https://www.plioceneridge.org/wildfire-preparedness-resources	
Do you use social media for hazard mitigation education and outreach?		Yes
<i>If yes, briefly describe:</i>	The Pike Dept. has a FB page plus there is a FB page for each Firewise community (Pike and Alleghany)	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?		Yes
<i>If yes, briefly describe:</i>	Firewise Community Committees	
Do you have any other programs in place that could be used to communicate hazard-related information?		Yes
<i>If yes, briefly describe:</i>	Direct mailings are used and public events to educate the residents.	
Do you have any established warning systems for hazard events?		Yes
<i>If yes, briefly describe:</i>	Alleghany has a siren, Pike has an electronic message board, plus the command vehicles have sirens and loud speakers that could be used to communicate as they drive around. Alleghany is easier in this regard as the residents are close to each other. In Pike where things are spread out, it is not as feasible. All residents are encouraged to sign up for the Everbridge notification system.	

Opportunities to Expand Education and Outreach Capabilities

The District is committed to supporting countywide outreach mitigation action listed in Volume 1 CW-1: *Continue to maintain a website that will house the multi-jurisdictional HMP and any amendments to it adopted during the next 5-year period to provide the Planning Partners and the public with ongoing access to the plan and its implementation.*

7.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction's capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 7-6.

Table 7-6. Community Classifications

	Participating?	Classification or Number	Date Classified
FIPS Code	N/A	N/A	N/A
UEI No.	Yes	LKH3KJUBJUH6	N/A
Community Rating System	N/A	N/A	N/A
Building Code Effectiveness Grading Schedule	N/A	N/A	N/A
Public Protection	Yes	05/5Y	2020
StormReady	N/A	N/A	N/A
Firewise	Yes	In good standing	2021



Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

7.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction's ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community's adaptive capacity for the impacts of climate change is presented in Table 7-7.

Table 7-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	High
<i>Comment:</i> As an entity that functions primarily as a "Fire District," catastrophic wildfire is high on the list of concerns.	
Jurisdiction-level monitoring of climate change impacts	High
<i>Comment:</i> By observation of the environment.	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i> Not without assistance of some type.	
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	High
<i>Comment:</i> The district needs to bring its facilities up to UWI standards.	
Participation in regional groups addressing climate risks	High
<i>Comment:</i> This County-wide planning group is a regional effort.	
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	High
<i>Comment:</i> Fire fuel reduction efforts.	
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	High
<i>Comment:</i> The district supports the Firewise efforts.	
Local authority over sectors likely to be negatively impacted	Low
Public Capacity	
Residents' knowledge of and understanding of climate risk	High
<i>Comment:</i> Wildfire risk is high on everyone's list of major concerns.	
Residents' support of adaptation efforts	High
<i>Comment:</i> Everyone wants to see vegetation thinning in the area.	



Criterion	Jurisdiction Rating ^a
Residents’ capacity to adapt to climate impacts	Low
<i>Comment:</i> Low-income and elderly people make up most of the population.	
Local economy current capacity to adapt to climate impacts	Low
<i>Comment:</i> The district lacks financial resources of its own to implement adaptation measures.	
Local ecosystems capacity to adapt to climate impacts	High
<i>Comment:</i> Nature adapts.	

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District has no need to expand this capacity beyond what is currently being done.

7.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

7.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Firewise USA communities.
- The USFS and Southern Pacific Industries are working together in the area to create a large shaded fuel break around Pike and along ridge road.
- The Sierra County Road crew performs vegetation management along the roadways.
- Local electricity provider PG&E has been clearing massive amounts of vegetation away from the power lines in the district and is also implementing a plan to move many electrical lines underground.
- Continue to work with the Sierra County Firesafe Counsel to hopefully acquire funding for planning projects and future fuel reduction projects.
- Search for grant funding to upgrade the district’s facilities and firefighting apparatus.
- Continue to educate the community about fire hazard mitigation around homes.
- Work with local State and Federal Agencies and Southern Pacific Industries to encourage fuels reduction work in the area.



7.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (***Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.***). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

7.7 RISK ASSESSMENT

7.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 7-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 7-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Many trees down blocking roads. Emergency response delayed. Mudslide on Ridge Road blocked access.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	Many trees down blocking roads. Emergency response delayed. Mudslide on Ridge Road blocked access.
Storm	December 2021 Storms	2022-03	12/30/2021	Many trees down blocking roads. Emergency response delayed. Mudslide on Ridge Road blocked access.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	Provided mutual aid to North San Juan and Camptonville as needed.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Board meetings held by conference call, fire/EMS in-person training suspended.
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	Many roads blocked by mudslides and trees, emergency response delayed.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Many roads blocked by mudslides and trees, emergency response delayed.
Drought	Drought Conditions Throughout the State	Governor's executive order B-29-15	2014-2015	The State Regional Water Quality Control Board issued a curtailment order on post 1914 Water rights. Water flow from the Ram Spring in Alleghany was at an all-time low. Water for fire protection diminished.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	2008 January Storms	2008-01	1/5/2008	Many roads blocked by mudslides and trees, emergency response delayed.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Many roads blocked by mudslides and trees, emergency response delayed.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides Snow	DR-1155-CA 97-01	1/4/1997	Many roads blocked by mudslides and trees, emergency response delayed.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	Many roads blocked by mudslides and trees, emergency response delayed.
Flood	Severe Winter Storm, Mudslides and Landslides, and Flooding	DR-979-CA 93-01	2/3/1993	Many roads blocked by mudslides and trees, emergency response delayed.
Snow	Severe Storms		1983	Similar to previous winter, very heavy snow, broke records. Unplanned homebirth in Alleghany because the roads were completely closed by snow.
Snow	Heavy Snow	82-03	4/1/1982	Twelve feet of snow fell over a period of 1 week in Alleghany and Forest City. Roads closed completely. Emergency response delayed.
Snow	1980 April Storms	80-01 thru 80-25	4/1/1980	Heavy snow, closed roads, buried fire hydrants in Alleghany.
Drought	Drought	EM-3023-CA	1/20/1977	Water shortage.

7.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 7-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.



Table 7-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.3	.3	.40	.40	.30	1.7	Low
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

7.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- The Community of Pike is on private wells for water and lacks fire hydrants. Currently, there are only two hydrants in Pike. One hydrant, located at the Pike Firehouse is fed by four tanks that hold a total of 26,000 gallons of water combined. Adding more water tanks at the Pike City Firehouse would increase hydrant capacity. The other hydrant, located in the vicinity of Pike City, is fed by a reservoir, the Wayman Dam. This reservoir sits on both private and public land, and there is a privately owned water right associated with it. The capacity of the reservoir could be greatly increased if it were to be dredged out. This would have the direct benefit of increasing the amount of readily available water in the event of a fire in Pike. Because the public landowner is the USFS, there is a lot of red tape involved in trying to do anything at this location. There was also some public push back when this option was explored by PRCSD in the past because of the private water rights that would benefit if the capacity of the reservoir were to be increased. The location of this reservoir is ideal for additional firefighting capacity for the community of Pike.
- Currently, there is only one firehouse in Pike. A second firehouse location in Pike is desirable for redundancy. Redundancy is desirable if one location becomes blocked by fire.
- The town of Alleghany does have a water system with hydrants, but the hydrants are almost 50 years old. The hydrants are buried by snow during the winter and must be shoveled out regularly. Upgrading the hydrants on tall standpipes would make it less likely that they would be buried by snow. The hydrants themselves need to be serviced and/or replaced.



- Alleghany has one siren at the north end of town for emergency alerts but it cannot be heard at the south end of town. Adding a second siren in Alleghany would ensure that more people could hear the warning siren in the event of a wildfire.
- A new phenomenon that is occurring in the area is linking the new ability of cell phones to call out in areas that do not have cell coverage. This is a satellite-linked feature that allows sending a SOS call with the press of a button. When this happens, all that comes through to dispatch is the coordinates of the phone with no communication to the reporting party. Accidental SOS calls are tying up limited resources. An educational program of some type needs to happen on a broad scale, to prevent this.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex (Table 7-10).



7.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 7-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: District Manager Support: Fire Chief	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • Firewise Communities Pike and Alleghany. • Community Wildfire Protection Plan. 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: District Manager Support: Fire Chief, Firewise committees, Sierra County Fire Safe Counsel.	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: District Manager Support: Fire Chief	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
4	Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power, including: <ul style="list-style-type: none"> Allegany Station 1 Allegany Station 2 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: Fire Chief Support: District Manager	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time, General Fund	Short-Term (less than 5 years)
5	Procure grant funding for fuel reduction work on private land in Pike and Allegany.	Safety & Security; Food, Hydration, Shelter, safety of first responders	Existing	1, 2, 3, 4, 5	Lead: District Manager Support: Fire Chief, Firewise committees, Sierra County Fire Safe Counsel.	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Short-Term (less than 5 years)
6	Increased water storage/hydrant capacity in Pike. Identify additional locations for easily accessible water storage in Pike. Increase capacity of existing sources.	Safety & Security; Food, Hydration, Shelter, safety of first responders	New and existing	1, 3, 5	Lead: Fire Chief Support: Dist. Manager	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Long-Term (5 years or more)
7	Additional firehouse location in Pike. Identify and procure location for second firehouse location in Pike, eventually build a second firehouse.	Safety & Security; Food, Hydration, Shelter, safety of first responders	New	1, 3, 5	Lead: Fire Chief Support: District Administrator	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Long-Term (5 years or more)
8	Additional siren for Allegany. Add second siren.	Safety & Security; Food, Hydration, Shelter	New	1, 5	Lead: Fire Chief Support: Assistant Chief	Low (\$0-\$50,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Short-Term (less than 5 years)
9	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Fire Chief Support: Assistant Chief	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
10	The fire districts in Sierra County have water supply apparatus for firefighting; however, there is a need to add additional equipment and apparatus.	Health and Medical; Safety and Security; Water Systems	Existing	2, 3, 5	Lead: Fire Chief Support: Assistant Chief	Low (\$0-\$50,000)	FEMA HMGP Grants, FMAG Grant,	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
	<p>Each fire district will conduct an inventory of current equipment and identify additional needs to help in fighting fires. Once determined, the County will work with the fire districts to identify funding options and apply for funding.</p> <p>Coordinates with Sierra County (Unincorporated Area) Action #16</p>						Staff Time, General Fund	

Table 7-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	1	3	3	3	3	0	3	3	3	3	0	3	3	3	3	42	High
6	1	3	3	3	3	0	3	3	3	3	0	3	3	3	3	43	High
7	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	38	High
8	1	1	3	3	3	0	0	0	3	3	3	3	3	3	3	40	High
9	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	42	High
10	3	3	3	3	3	0	0	3	3	3	0	3	3	3	3	46	High



Table 7-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	N/A		■		■	■		■	■
2	■					■	■	N/A	■	■	■	■	■	■	■	■
3	■					■	■	N/A	■	■	■	■	■	■	■	■
4						■	■	N/A		■	■	■	■	■	■	■
5				■	■	■		N/A							■	
6		■				■		N/A					■			
7		■					■	N/A		■		■	■		■	■
8								N/A								
9	■		■			■	■	N/A	■	■	■	■	■	■	■	■
10						■		N/A							■	



7.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction's needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 7-13.

Table 7-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
Annual mailer	2/21/2025	250 pieces mailed to property owners plus a few residents who do not own their homes.
Electronic sign in front of Pike firehouse. This sign is visible on the main road through Pike. Alleghany and Forest City residents have to drive past it to get home, so they see it too.	Daily	Everyone who drives through Pike sees it.
Monthly board meetings open to the public	Monthly	10 to 15 attendees plus others see the meeting packets online. 36 are signed up for email packets.
Website	Ongoing	As explained above the website contains a lot of fire hazard mitigation info.
Local Newspaper articles/updates/meetings and trainings on calendar of events	Articles periodically, calendar weekly	500+

7.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **ISO announcement letter** from 2020 provides the ISO ratings for Pike and Alleghany.
- **Management's Discussion and Analysis of Operations** from audit reports, used for description of district.
- **Balance Sheet** used for asset values.
- **Firewise USA documents** reviewed for Pike and Alleghany for action plan and risk assessment dates.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



8. SIERRA CITY FIRE PROTECTION DISTRICT



Source: Sierra City Fire Protection District

8.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Sierra City Fire Protection District. Members are listed in Table 8-1.

Table 8-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Scott Hall, Fire Chief	Name and Title:	Glen Haubl, Chairman of the Fire Commission
Address:	PO Box 257 Sierra County	Address:	PO Box 257 Sierra County
Phone Number:	N/A	Phone Number:	N/A
Email:	Scottdhall58@gmail.com	Email:	glenhaubl17@comcast.net
Contributors:			
Name and Title:	Scott Hall,		
Method of Participation:	Attended Steering Committee/Planning Partner meetings,		



8.2 JURISDICTIONAL PROFILE

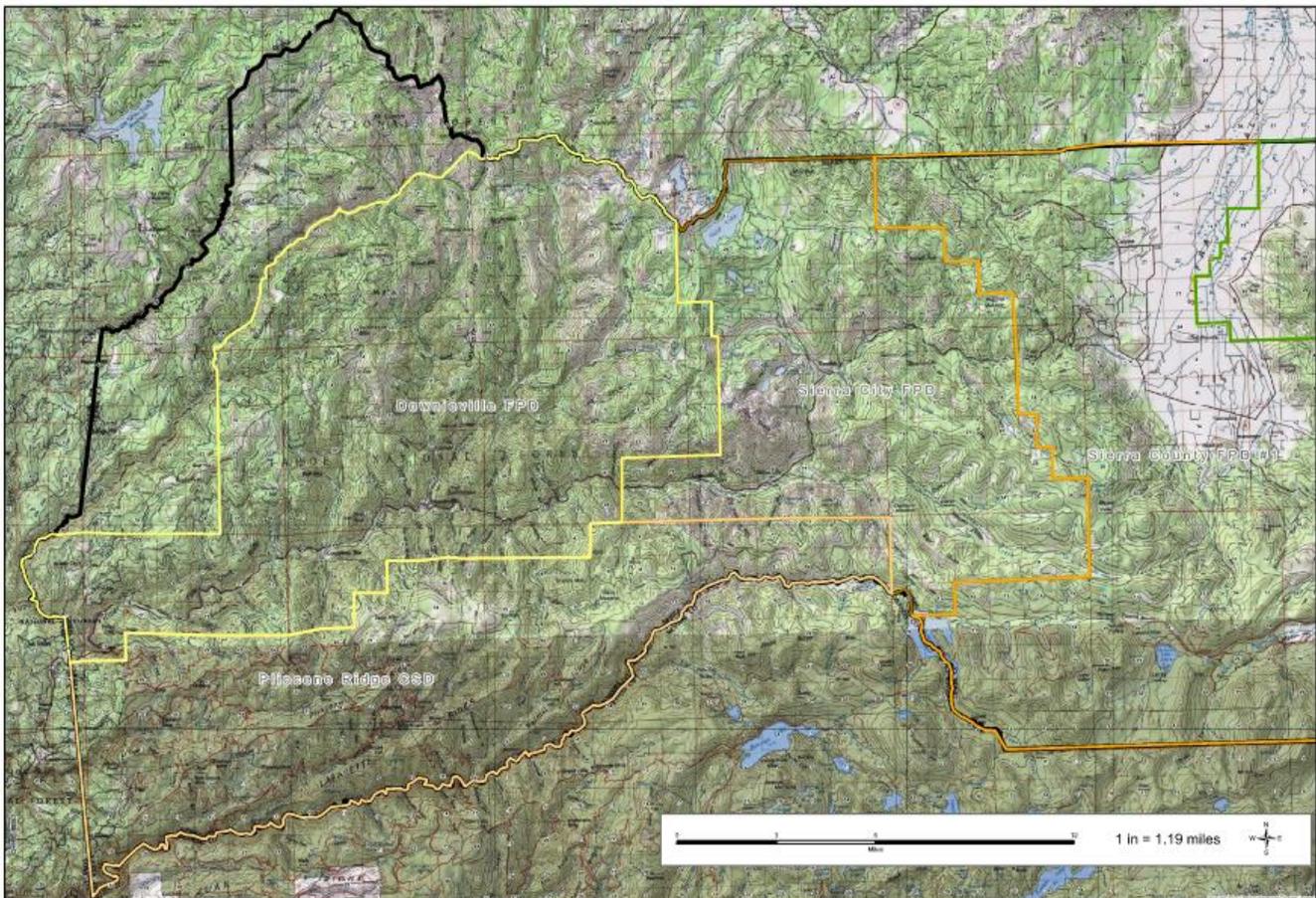
8.2.1 Overview

The District participates in the Public Protection Class Rating System and has a rating of 7.

8.2.2 Service Area

The District serves an area of approximately 175 square miles and an estimated 250 residents and provides fire protection services to the communities of Sierra City, Green Acres.

Figure 8-1. Sierra City Fire Protection District Service Area (brown outline)



8.2.3 Governing Body

The District is governed by an elected five-member Board of Directors, which assumes responsibility for the adoption of this plan. The Fire Chief will oversee the plan's implementation.



8.2.4 Assets

Asset	Value
Property	
Vacant Land in Sierra City	\$30,000
Equipment	
Rescue	\$100,000
Type 6	\$100,000
Type 6	\$50,000
Type 3	\$250,000
Water Tender	\$200,000
Total:	\$700,000
Critical Facilities	
Station 1	\$200,000
EMS Shed	\$50,000
Sand Shed	\$250,000
Bassetts Fire Station	\$100,000
Sierra City Community Hall	\$400,000
Total:	\$600,000

8.3 CURRENT TRENDS

There are minimal anticipated changes in services provided by the District. The resident population is static, but the visitor population will continue to increase. Call volume may increase over the next few years. Since the increase in visitor population after the Covid pandemic, approximately 50% more visitors spend time in the backcountry which may result in increased call volume in response to emergencies.

8.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

8.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 8-2.



Table 8-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Sierra County Community Wildfire Protection Plan (CWPP)	2025 – In progress	The CWPP update is underway.

Opportunities to Expand Planning and Regulatory Capabilities

The District is currently participating in the ongoing update to the Community Wildfire Protection Plan.

8.4.2 Fiscal Capabilities

Assessing a jurisdiction’s fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 8-3.

Table 8-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	No
<i>If yes, specify:</i>	NA
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

8.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 8-4.



Table 8-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	No
Engineers or professionals trained in building or infrastructure construction practices	No
Planners or engineers with an understanding of natural hazards	No
Staff with training in benefit-cost analysis	No
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	No
Grant writers	No
Procurement Services and Management	No

Opportunities to Expand Administrative and Technical Capabilities

The District is committed to expanding this capability through Mitigation Action 6: *Support outreach and education in the community to increase the capacity of volunteer staff through the Firewise program through their website and the annual meeting each May.*

8.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 8-5.

Table 8-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<i>If yes, briefly describe:</i>	Firewise
Do you have any other programs in place that could be used to communicate hazard-related information?	No
Do you have any established warning systems for hazard events?	Yes
<i>If yes, briefly describe:</i>	Three evacuations sirens in Sierra City FPD service area. These also notify volunteer firefighters of calls coming in.

Opportunities to Expand Education and Outreach Capabilities

The District will continue to participate in future education and outreach with the Firewise program by including Mitigation Action 5: *Continue to coordinate with Firewise for public education and outreach for defensible space.*



8.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 8-6.

Table 8-6. Community Classifications

	Participating?	Classification	Date Classified
FIPS Code	No	N/A	N/A
UEI No.	No	N/A	N/A
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	Yes	7	Before 2020
StormReady	No	N/A	N/A
Firewise	Yes	N/A	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

8.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 8-7.



Table 8-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	Low
Local authority over sectors likely to be negative impacted	Low
Public Capacity	
Residents’ knowledge of and understanding of climate risk	Low
Residents’ support of adaptation efforts	Low
Residents’ capacity to adapt to climate impacts	Low
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District has not identified a need to expand adaptive capacity capabilities.

8.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

8.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or



enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Sierra County Community Wildfire Protection Plan (CWPP)

8.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (**Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.**). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

8.7 RISK ASSESSMENT

8.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 8-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 8-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Multiple trees down on roadways with potential reduced response times due to lack of access.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	While not directly involved in the large scale fires, Sierra City Fire resources were tasked with providing coverage for portions of the USFS direct responsibility areas due to lack of resources.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	The duration of the pandemic required use of medical personal protective clothing more than what would normally be required. This related to an increased expenditure of funds for PPE.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	The Bassetts wildfire caused road closures and burned close to structures in the Bassetts area. Local Sierra City Fire resources were used for several days which potentially hampered response capabilities within the district.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	Extreme Rainfall	2005-07	11/7/2005	\$504,323 Response times along the Highway 49 corridor were hampered due to roadways being washed out limiting travel to a single lane.

8.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 8-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.

Table 8-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

8.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.



The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- The large visitor population can increase call volume in the backcountry which leaves the town area without first responders.
- Volunteer fire service in general is losing members at a high rate. The District is constantly short-staffed.
- Dead and downed fuels in the forests surrounding Sierra City and Bassets need to be mitigated with heavy equipment. This would need to be done by outside contractors.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex (Table 8-10).



8.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 8-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: Fire Chief Support: Chairman of the Fire Commission	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • CWPP 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: Fire Chief	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Fire Chief	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
4	Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power, including: <ul style="list-style-type: none"> • Community Hall 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: Fire Chief	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
5	Continue to coordinate with Firewise for public education and outreach for defensible space.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications;	New and Existing	1, 5	Lead: Fire Chief	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
		Transportation; HazMat; Water Systems						
6	Support outreach and education in the community to increase the capacity of volunteer staff through the Firewise program through their website and the annual meeting each May.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	1, 5	Lead: Fire Chief	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
7	Institute a fuels reduction program	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	1, 5	Lead: Fire Chief	Low (\$0-\$50,000)	FEMA HMGP Grants, Staff Time, General Fund	Short-Term (less than 5 years)
8	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Fire Chief Support: Chairman of the Fire Commission	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
9	The fire districts in Sierra County have water supply apparatus for firefighting; however, there is a need to add additional equipment and apparatus. Each fire district will conduct an inventory of current equipment and identify additional needs to help in fighting fires. Once determined, the County will work with the fire districts to identify funding options and apply for funding. Coordinates with Sierra County (Unincorporated Area) Action #16	Health and Medical; Safety and Security; Water Systems	Existing	2, 3, 5	Lead: Fire Chief Support: Chairman of the Fire Commission	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Table 8-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	1	3	3	3	3	0	3	3	3	3	0	3	3	3	3	42	High
6	1	1	3	3	3	0	0	3	3	3	0	3	3	3	3	38	High
7	1	3	3	3	3	0	3	3	3	3	0	3	3	3	3	44	High
8	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	41	High
9	3	3	3	3	3	0	0	3	3	3	0	3	3	3	3	45	High



Table 8-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	N/A		■		■	■		■	■
2	■					■	■	N/A	■	■	■	■	■	■	■	■
3	■					■	■	N/A	■	■	■	■	■	■	■	■
4						■	■	N/A		■	■	■	■	■	■	■
5				■	■	■		N/A							■	
6						■		N/A							■	
7				■	■	■		N/A							■	
8	■		■			■	■	N/A	■	■	■	■	■	■	■	■
9						■		N/A							■	



8.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction’s needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 8-13.

Table 8-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
District staff supported the countywide outreach efforts for this plan	Throughout the planning process	About 200

8.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **District Finance Records** used for the asset values.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



9. SIERRA COUNTY FIRE PROTECTION DISTRICT NO. 1



Source: Sierra County Fire Protection District No. 1

9.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Sierra County Fire Protection District No. 1. Members are listed in Table 9-1.

Table 9-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Rick Maddalena, Director	Name and Title:	Jeff McCollum
Address:	N/A	Address:	N/A
Phone Number:	530-906-5081	Phone Number:	530-906-7342
Email:	tk.rick.07@gmail.com	Email:	Jeffmccollum80@gmail.com
Contributors:			
Name and Title:	Rick Maddalena, Director		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, reviewed/edited draft annex response with consultant Megan Brotherton		
Name and Title:	Kelly Champion, Rick Maddalena, and Jeff McCollum		
Method of Participation:	assembled data for annex response		
Name and Title:	District Board of Directors		
Method of Participation:	reviewed draft annex as an itemized agenda topic at their June 17, 2025, monthly meeting		



9.2 JURISDICTIONAL PROFILE

9.2.1 Overview

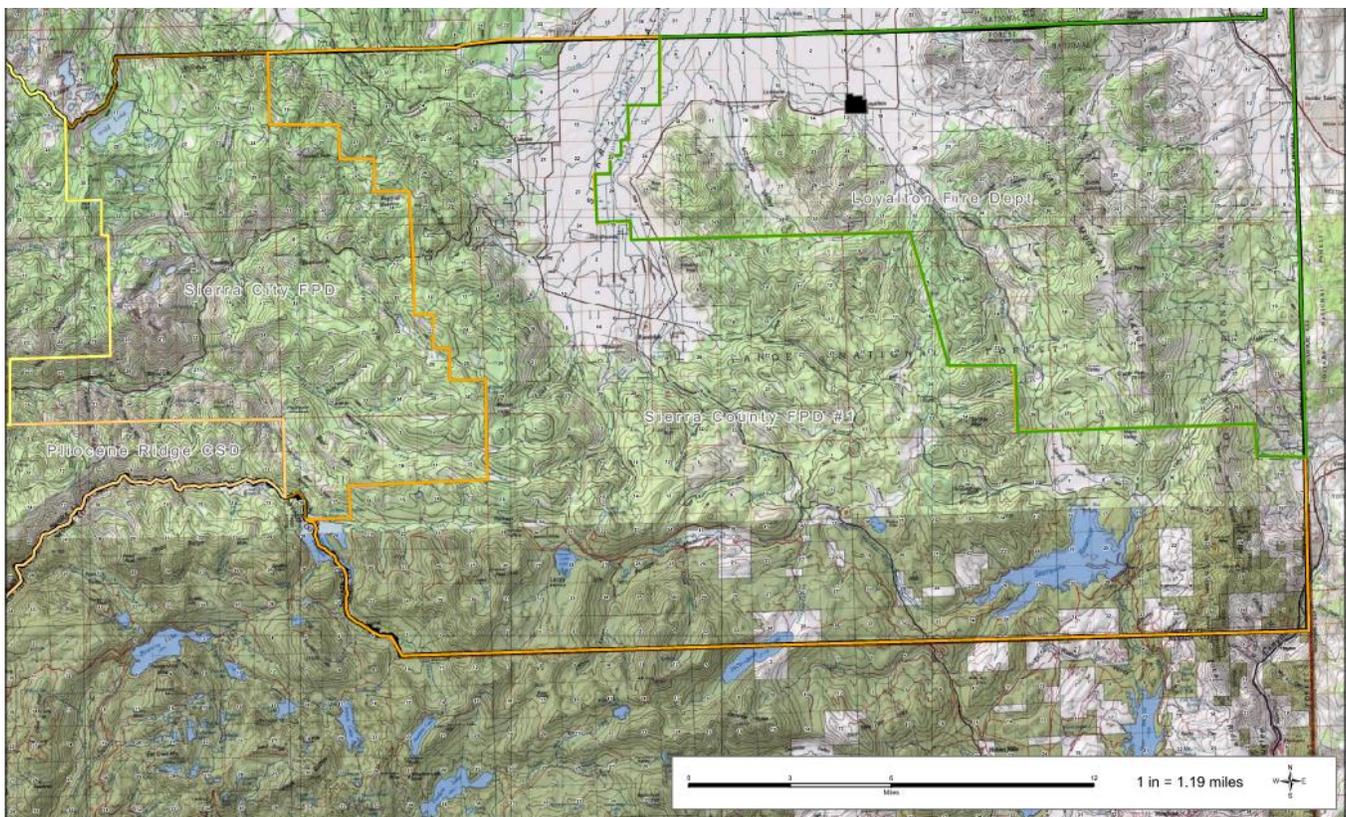
Sierra County Fire Protection District No. 1 provides fire protection and basic EMS support service for the eastern portion of the County. The District was formed in 1930 and bonded efforts of the volunteers in the Calpine, Sierraville and Sattley Volunteer Fire Departments. The District annexed areas around Loyalton and Verdi/Long Valley in 2004. Although the District does not have formal responsibilities for wildland fire nor EMS, the District owns fire apparatus and rescue equipment that support the mission of their partners (USFS, CAL FIRE, Eastern Plumas HealthCare) that have those responsibilities.

The District participates in the Public Protection Class Rating System and currently has a rating of 6/6x.

9.2.2 Service Area

The District provides fire and EMS services to a 329,512 acre or 514.9 square mile portion of Sierra County, from the Crest of the Sierras east to the Nevada state border, and from Nevada County to Plumas and Lassen Counties, excluding the City of Loyalton. The District maintains and operates three Stations: Station 82 in Sierraville, Station 83 in Sattley, and Station 84 in Calpine. The District meets its protection mandate to Sierra Brooks, Loyalton Pines, and the neighboring ranches near Loyalton via a service contract with the City of Loyalton. Similarly, services for Long Valley and Verdi, California, are provided via a service contact with Truckee Meadows Fire District.

Figure 9-1. Sierra County Fire Protection District No. 1 Service Area (orange outline)





9.2.3 Governing Body

The District is governed by a seven-member Board of Directors appointed by the Sierra County Board of Supervisors. The Board of Directors assumes responsibility for the adoption of this plan. The Fire Chief will oversee the plan's implementation.

9.2.4 Assets

Asset	Value	
Equipment		
3 Type 1 Engines (E-182, 83,84)	\$ 100K, 55K, 75K	
Type 2 Engine (E282)	\$ 70K	
2 Type 3 Engines (E-382, 384), 1 Type 6 Engine (E683)	\$ 50K, 55K	
3 Type 1 Water Tenders (WT82, 83,84)	\$150K, 150K, 150K	
2 Light 4x4 Rescue Vehicles (R82, R84)	\$ 100K, 50K	
Total:	\$1,005,000	
Critical Facilities	Building	Content
Station 82, 102 E. Main, Sierraville, CA (two structures)	\$1.3MM, 1.2MM	250K,119K
Station 83, 156, Main Street, Sattley CA	\$1.2MM	70K
Station 84 129, County Road, Calpine CA	\$1.7MM	250K
Fillippini Water Tanks, Hwy 49 @ Fillippini Road	\$40K	
Sattley Well and Water Tanks, 157 Main Street, Sattley	\$15K	
Total:	\$7,099,000	

9.3 CURRENT TRENDS

Perhaps related to building code performance, the number of structure fires in the District has declined over time. Seldom are there more than four or five in a year. Opposing that trend is an annual increase in responses calls to vehicle accidents and medical needs. Although the population growth within the District has declined, the volume of commuters on the highways and number of tourist in the area has greatly increased. Both increasing demands challenge the financial resources of the district as those temporary occupants and those passing through do not contribute (except for a small share of transient-oriented tax collected for the District).

9.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

9.4.1 Planning and Regulatory Capabilities



Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 9-2.

Table 9-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
County Wide Fire Protection Plan	2014 with map edits in 2024	Revision expected in 2025
District Capital Improvement Plan	2024	Update Planned for 6/25

Opportunities to Expand Planning and Regulatory Capabilities

The District does not have authority to establish planning or building codes without direct approval by the County Board of Supervisors and has not been delegated the authority to enforce local or state regulations.

An opportunity does exist for partnership with the County to expand regulations that would require clearing on vacant lots and certain commercial properties which are widespread issues in the County frustrating the efforts of Firewise organizations.

9.4.2 Fiscal Capabilities

Assessing a jurisdiction’s fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 9-3.

Table 9-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas, or Electric Service	No
Incur Debt through General Obligation Bonds	Unknown
Incur Debt through Special Tax Bonds	Unknown
Incur Debt through Private Activity Bonds	Unknown
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
USDA Grants and Low-Interest Loans	Yes

Opportunities to Expand Fiscal Capabilities

The District is not confident that they have an opportunity to issue bonds or add service fees. There are some minor opportunities to increase participation in providing additional resources to Federal and Cal OES partners, thereby increasing revenue in excess of cost of providing these services. Grant writing has been with limited success because of the small population served as well as the limited number of incidents per year.



The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

9.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 9-4.

Table 9-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	No
Engineers or professionals trained in building or infrastructure construction practices	No
Planners or engineers with an understanding of natural hazards	No
Staff with training in benefit-cost analysis	No
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	Yes
<i>If Yes, Department /Position:</i> Director	
Grant writers	No
Procurement Services and Management	Yes
<i>If Yes, Department /Position:</i> Director	

Opportunities to Expand Administrative and Technical Capabilities

The primary opportunity for the District to enhance these administrative and technical capabilities is to enter into professional service agreements.

9.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 9-5.

Table 9-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	Basic



Criterion		Response
Do you have hazard mitigation information available on your website?		No
Do you use social media for hazard mitigation education and outreach?		No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?		Yes
<i>If yes, briefly describe:</i>	5 Firewise Community Boards	
Do you have any other programs in place that could be used to communicate hazard-related information?		No
Do you have any established warning systems for hazard events?		Yes
<i>If yes, briefly describe:</i>	County Everbridge System	

Opportunities to Expand Education and Outreach Capabilities

This is a low priority area for the District. There is a limited opportunity to provide community warning systems by reactivating sirens once used to summon firefighters.

9.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 9-6.

Table 9-6. Community Classifications

	Participating?	Classification or Number	Date Classified
FIPS Code	06091	06091	N/A
UEI No.	N/A	N/A	
Community Rating System	ISO	6, 6X	N/A
Building Code Effectiveness Grading Schedule	At County Level	N/A	N/A
Public Protection (ISO)	Yes	6, 6X	N/A
StormReady	N/A	N/A	N/A
Firewise	Yes	5 communities	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

9.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their



capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 9-7.

Table 9-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Medium
<i>Comment:</i> Two stations with backup power, third in progress	
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	Low
Local authority over sectors likely to be negative impacted	Low
Public Capacity	
Residents’ knowledge of and understanding of climate risk	Low
Residents’ support of adaptation efforts	Low
Residents’ capacity to adapt to climate impacts	Low
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District has no need to expand this capacity beyond what is currently being done.

9.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

9.5.1 Opportunities for Future Integration



The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Sierra Co. adoption of FEMA floodplain – Integrate mapping
- Sierra Co. Fire Safe Council CWPP – Integrate wildfire risk assessment
- Capital Improvement Plan (CIP) – Integrate financial planning. The CIP and MJHMP projects will be integrated as appropriate

9.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (**Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.**). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

9.7 RISK ASSESSMENT

9.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 9-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 9-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildfire	2024 Bear Fire	N/A	N/A	No structures were burned, but fencing was damaged and fire suppression damage.
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Power outages and travel restrictions.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides (on Hwy 49)	EM-3592-CA	3/10/2023	Minor damage to two homes in Sierraville; minor flooding to Fire Station 82.
Fire	Wildfires (Loyalton Fire)	DR-4558-CA 2020-06	8/22/2020	Three Structures lost in Long Valley.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Impacted staffing of volunteers.
Flood	2008 January Storms	2008-01	1/5/2008	Snowfall totals of 3 to 11 feet were reported in the northern Sierra Nevada Mountains, with



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				winds up to and possibly exceeding 100 mph coupled with heavy snow bringing blizzard conditions.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Minor damage to two homes and travel to medical facilities delayed.
Flood	Extreme Rainfall	2005-07	11/7/2005	Snow levels were 4,000 to 5,500 feet and snow amount up to 18 inches in the higher elevations. \$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Damaged homes in Sierraville
Fire	1994 Cottonwood and Crystal Fires	N/A	N/A	Burned much of the east side of the Tahoe National Forest. Homes burned in Sunrise Basin and threatened in Verdi, California. Homes burned in Verdi, Nevada. Sierra Brooks and Mill Site were dramatically at risk during Cottonwood Fire.
Flood	Severe Winter Storm, Mudslides and Landslides, and Flooding	DR-979-CA 93-01	2/3/1993	Minor damage to Fire Station in Sierraville.
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	One home damaged in Sierraville.
Fire	1960 Major Fires	No number	8/16/1960	Ranch burned at Sardine Valley.
Fire	1959 Coldstream Fire	N/A	N/A	Intense battle to save Campbell Hot Springs area of Sierraville.

9.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 9-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.



Table 9-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.30	.30	.20	.40	.30	1.5	Low
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.90	.80	.20	.30	3.1	High
Landslide/Mass Movement	.30	.30	.20	.40	.30	1.5	Low
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

9.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Many roads in the District are not plowed regularly. An over-snow all-terrain vehicle is needed for medical rescues in remote areas during winter months.
- Many portions of the District are not served by community water systems. The District uses three Type 1 water tenders to supply fire suppression water to these areas and to supplement USFS and Cal Fire needs. All three are 1970s vintage trucks that need replacement.

Mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex (Table 9-10).



9.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 9-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas, including: <ul style="list-style-type: none"> • Determine if Station 82 can be modified to protect against flooding 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: District Board of Directors Support: Sierra County Planning and Building Department	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • CIP • CWPP 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: District Board of Directors Support: Fire Safe Council	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: District Board of Directors Support: Sierra County OES	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
4	Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power, including: <ul style="list-style-type: none"> • Station 83 • Sattley water supply system 	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: District Board of Directors Support: Contract Engineer	High (\$250,000-\$1,000,000)	FEMA HMA, General Fund, Assistance for Firefighter Grants (AFG)	Short-Term (less than 5 years)
5	Over-snow all-terrain vehicle (from CIP), acquire within 3 years	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	New and Existing	1, 5	Lead: District Board of Directors Support: Fire Chief	High (\$250,000-\$1,000,000)	HSGP, EMPG, AFG	Short-Term (less than 5 years)
6	Water Tender (from CIP) , acquire within 3 years	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	New and Existing	1, 5	Lead: District Board of Directors Support Fire Chief:	High (\$250,000-\$1,000,000)	General Fund	Short-Term (less than 5 years)
7	Develop Helicopter Dip tank at Deerwater Airport within 2 years	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	New and Existing	1, 5	Lead: District Board of Directors Support: Sierra County Public Works	High (\$250,000-\$1,000,000)	General Fund, AFG, EMPG, HSGP	Short-Term (less than 5 years)
8	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Fire Chief Support: Chairman of the Fire Commission	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
9	The fire districts in Sierra County have water supply apparatus for firefighting; however, there is a need to add additional equipment and apparatus. Each fire district will conduct an inventory of current equipment and identify additional needs to help in fighting fires. Once determined, the	Health and Medical; Safety and Security; Water Systems	Existing	2, 3, 5	Lead: Fire Chief Support: Chairman of the Fire Commission	Low (\$0-\$50,000)	FEMA HMGP Grants, FMAG Grant, Staff Time, General Fund	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
	County will work with the fire districts to identify funding options and apply for funding. Coordinates with Sierra County (Unincorporated Area) Action #16							

Table 9-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	1	1	3	3	3	0	0	0	3	3	3	3	3	3	3	37	High
6	1	1	3	3	3	0	0	0	3	3	0	3	3	3	3	35	Medium
7	1	1	3	3	3	0	0	0	3	3	0	3	3	3	3	36	Medium
8	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	41	High
9	3	3	3	3	3	0	0	3	3	3	0	3	3	3	3	45	High



Table 9-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	N/A		■		■	■		■	■
2	■					■	■	N/A	■	■	■	■	■	■	■	■
3	■					■	■	N/A	■	■	■	■	■	■	■	■
4						■	■	N/A		■	■	■	■	■	■	■
5						■	■	N/A		■		■	■	■	■	■
6						■		N/A							■	
7						■		N/A							■	
8	■					■	■	N/A	■	■	■	■	■	■	■	■
9						■		N/A							■	



9.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction’s needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 9-13.

Table 9-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
SCFPD 1 Website	Ongoing	Varies
Five Firewise Communities	Current in 2024	20-30

9.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **SCFPD Capital Improvement Plan** was used to develop the capability assessment and mitigation action plan.
- **County adopted building codes** were referenced for the capability assessment.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.
- Sierra County website was accessed to establish population served by the District.



10. SIERRA COUNTY WATERWORKS CALPINE DISTRICT NO.1



Source: Sierra County Waterworks Calpine District No. 1

10.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Sierra County Waterworks Calpine District No. 1. Members are listed in Table 10-1.

Table 10-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Bruce Troedson	Name and Title:	Janet Drummond
Address:	P.O. Box 25 Calpine, CA 96124	Address:	P.O. Box 25 Calpine, CA 96124
Phone Number:	530 994-3930	Phone Number:	530 994-3639
Email:	batroedson@gmail.com	Email:	jndrummond123@gmail.com
Contributors:			
Name and Title:	Bruce Troedson		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, developed annex		
Name and Title:	Janet Drummond		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, developed annex		



10.2 JURISDICTIONAL PROFILE

10.2.1 Overview

Sierra County Water Works Calpine District No.1 is special service district located in Sierra County, California, and created in 1958. The District is dedicated to delivering high quality, clean water in accordance with California State Water standards while maintaining and improving the delivery system at the lowest possible cost to its users. Funds for operation are derived from water service user fees and a small allocation of property taxes. The District has no employees. Contractors are utilized for planning, engineering, and system operation. Directors that serve on the Board are voluntary, appointed from property owners within the district boundaries.

10.2.2 Service Area

The District serves an area of approximately 0.4 square mile with an estimated population of 250 full and part-time residents and provides water services to a majority of the unincorporated community of Calpine, California. Water for fire suppression needs is supplied by a hydrant system from the community water supply (MOU with Sierra County Fire Protection District No. 1) and a tanker-fill hydrant fed by a small reservoir located on Fletcher Creek. The reservoir is operated and maintained by the District under a special use permit administered by the Tahoe National Forest. The reservoir is identified as a critical water source for community protection/wildfire suppression in the Sierra County Wildfire Protection Plan.

10.2.3 Governing Body

The District is governed by an appointed five-member Board of Directors, which assumes responsibility for the adoption of this plan. The Board members will have the responsibility to oversee the plan's implementation.

10.2.4 Assets

Asset	Value (as of 1/24/2024)
Property	
Wells 1 and 2, office, tank, and planned improvement property	\$ 100,000
Equipment	
Well 2 – Pump, piping, electrical, and treatment facilities, 14 kW generator	\$ 151,657
Office	\$ 2,274
Well 1 – pump, piping, electrical, valves, 14 kW generator	\$ 80,892
Tank (140,000 gallon storage capacity)	\$ 280,844
Fire hydrants and meters	\$ 651,302
Total:	\$ 1,166,969
Critical Facilities	
Well 2 - Building	\$73,019
Office	\$33,701
Well 1 – Pumphouse	\$39,318



Asset	Value (as of 1/24/2024)
Fletcher Creek Reservoir/Tanker Fill Hydrant – Fire emergency use only	\$0
Total:	\$146,038

10.3 CURRENT TRENDS

The Sierra County Water Works Calpine District No.1 originally was formed to serve the Calpine community area. The District’s service area has expanded throughout the years to include the full area served today. Community residents outside the district boundaries rely on privately owned/operated wells. Total community population has increased by approximately 8 percent since 2010, mostly due to an increase of residents with families. Population in the service area is not projected to change significantly over the next 10 years, and the District has no current plans to expand its service area. The District is currently planning implementation of a capital improvement project to construct a new well and water treatment facility funded by grant funding. Planning has been completed for an additional 140,000-gallon water storage tank to increase residential water service capacity and provide for additional fire protection water needs. This additional tank project is on hold until additional funds are available.

10.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

10.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 10-2.

Table 10-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Capital Improvement - New Storage Tank, Well, and Treatment Plant	2020-2021	Project planning complete, with planned implementation updates as needed. Additional storage tank increases water availability for fire protection.
Facility Operations Emergency Plan	2021	Response and contact information for District operated facilities.



Opportunities to Expand Planning and Regulatory Capabilities

The District is currently seeking additional funding for loans and/or grants to complete planned improvement projects.

10.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 10-3.

Table 10-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	Yes
<i>If yes, specify:</i> Residential water use	
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

Opportunities to Expand Fiscal Capabilities

A special service district was created to provide residential water to users at cost to maintain and operate system. Ability to raise use rates for capital improvements or add staff is very limited.

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

10.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 10-4.



Table 10-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	No
<i>If Yes, Department /Position:</i>	Contracted out when needed
Engineers or professionals trained in building or infrastructure construction practices	No
<i>If Yes, Department /Position:</i>	Contracted out when needed
Planners or engineers with an understanding of natural hazards	No
Staff with training in benefit-cost analysis	No
Surveyors	No
<i>If Yes, Department /Position:</i>	Contracted out when needed
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	Yes
<i>If Yes, Department /Position:</i>	Board Members and contract Water System Operator
Grant writers	No
<i>If Yes, Department /Position:</i>	Contracted out when needed
Procurement Services and Management	Yes
<i>If Yes, Department /Position:</i>	Board Members and contracted services when needed

Opportunities to Expand Administrative and Technical Capabilities

This small service district that has limited needs for full time employees/staff and has not currently identified additional administrative or technical capabilities.

10.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 10-5.

Table 10-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
Do you have any other programs in place that could be used to communicate hazard-related information?	No
Do you have any established warning systems for hazard events?	No

Opportunities to Expand Education and Outreach Capabilities

The existing District website could be expanded and utilized for hazard communication.



10.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 10-6.

Table 10-6. Community Classifications

	Participating?	Number or Classification	Date Classified
FIPS Code	N/A	N/A	N/A
UEI No.	N/A	N/A	N/A
Community Rating System	N/A	N/A	N/A
Building Code Effectiveness Grading Schedule	N/A	N/A	N/A
Public Protection	N/A	N/A	N/A
StormReady	N/A	N/A	N/A
Firewise	Yes	Participating	04/29/2022

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this sub-section. Currently, there is no need to identify specific community classifications for expansion.

10.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 10-7.



Table 10-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Unsure
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Unsure
Political support for implementing climate change adaptation strategies	Unsure
Financial resources devoted to climate change adaptation	Low
<i>Comment:</i>	<i>Likely dependent on grant funding</i>
Local authority over sectors likely to be negative impacted	Unsure
Public Capacity	
Residents' knowledge of and understanding of climate risk	Unsure
Residents' support of adaptation efforts	Unsure
Residents' capacity to adapt to climate impacts	Unsure
<i>Comment:</i>	<i>Local residents seem pretty adaptable to whatever comes at them</i>
Local economy current capacity to adapt to climate impacts	Unsure
Local ecosystems capacity to adapt to climate impacts	Unsure

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District has no need to expand this capacity beyond what is currently being done.

10.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.



10.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Sierra County Community Wildfire Protection Plan (currently being updated).

10.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (***Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.***). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

10.7 RISK ASSESSMENT

10.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 10-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 10-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildfire	2024 Bear Fire	N/A	N/A	No structures were burned, but fencing was damaged and there was fire suppression damage.
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Moderate snow added to an already heavy mountain snow-pack, bringing snow removal challenges for mountain highways, with travel delays and periods of chain controls. There were embedded thunderstorms with small hail in the foothills and heavy snow showers in the mountains. Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	A wet system brought periods of heavy rain with flooding. Heavy rain fell bringing widespread roadway flooding, as well as local mudslides, flash flooding, with evacuations ordered in some areas. Thunderstorms with large hail, strong



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				damaging winds and tornadoes were reported. Strong winds gusting to 55 to 75 mph brought down numerous trees and powerlines across the area, causing widespread and extended power outages.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	The Loyaltan Fire began on 8/14/2020 and was active for 12 days, burning over 47,000 acres.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Impacts to staffing capacity countywide.
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	A storm system brought wind damage to trees, thunderstorms with hail, and snow accumulating down into the foothills of the Sierra and Coastal Range. Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Two significant waves of precipitation associated with an atmospheric river brought heavy rain and higher elevation (mainly above 6500 feet) snowfall to northeast California. Flooding from creeks covered the intersection of Highways 49 and 89 in Sierraville. Shallow water was photographed up against buildings at the Sierraville Ranger Station. A washout caused the closure of Highway 49 between Sattley and the Yuba Pass. Severe flooding and road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.
Flood	2008 January Storms	2008-01	1/5/2008	Snowfall totals of 3 to 11 feet were reported in the northern Sierra Nevada Mountains, with winds up to and possibly exceeding 100 mph coupled with heavy snow bringing blizzard conditions.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Storm after storm affected northern and central California with extreme precipitation impacting the Sierra County region. Road and highway damage, slides, trees down, power outages, and flooding.
Flood	Extreme Rainfall	2005-07	11/7/2005	Snow levels were 4,000 to 5,500 feet and snow amount up to eighteen inches in the higher elevations. \$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Sierra County experienced severe flooding due to a series of powerful storms that brought heavy rain and rapid snowmelt from the Sierra Nevada mountains. This event was part of a larger, devastating flood across Northern California,



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
				triggered by an atmospheric river. The storms led to widespread inundation, levee breaches, and significant damage to infrastructure and property in the region. Highest recorded flooding, peak flow 45,500 cfs. Twelve structures destroyed, at least 40 others damaged, debris clearance, emergency protective measures, and significant highway and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	A powerful Pacific jet stream brought heavy precipitation. These storms, exacerbated by a moderate to strong El Nino, resulted in significant damage and loss of life. The storms caused flooding on both large and small rivers, with some areas experiencing record-breaking flow rates. Storm damage countywide approximately \$250,000.
Flood	Severe Winter Storm, Mudslides and Land Slides, and Flooding	DR-979-CA 93-01	2/3/1993	Sierra County experienced flooding and road closures. Damaged structures, roads, utilities from flooding, mudslides, rockslides, trees falling and an avalanche.
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire 8,500 acres.
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	A series of powerful storms brought intense rain and snow to Northern and Central California, causing widespread flooding, mudslides, and significant damage, particularly in Sierra County. \$1.3 million in damage in Sierra County. Damage to homes, motels, roads, and utilities.
Flood	Heavy Rains and Flooding	82-03	4/1/1982	In April 1982, Sierra County experienced severe storms and flooding. The storms brought heavy rainfall and snowmelt, leading to overflowing rivers and streams, causing significant damage to infrastructure and property.
Flood	1980 April Storms	80-01 thru 80-25	4/1/1980	Significant flooding was experienced across California, with the Sierra Nevada and its foothills experiencing substantial runoff.
Drought	Drought	EM-3023-CA	1/20/1977	Drought conditions impacted the entire County during one of the driest years on record in California.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	Severe Storms and Flooding	DR-253-CA	1/26/1969	A series of storms caused significant flooding across the state, with the San Joaquin basin, Sacramento basin, central coast drainages, and the Truckee River and Honey Lake basins being heavily impacted. Warm air during the storms resulted in rain falling at high elevations, contributing to melting snowpack and increased runoff in the Sierra Nevada. Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees.
Flood	Heavy Rains and Flooding	DR-183-CA	12/24/1964	The Christmas flood of 1964 caused significant flooding in Sierra County as part of a larger disaster affecting multiple northwestern states. This event was characterized by heavy rainfall, melting snow, and frozen ground, leading to extreme runoff and devastating floods. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	The 1963 floods in Sierra County were caused by a warm-type storm that brought heavy rainfall to the Sierra Nevada mountains. The storm resulted in rapid stream rises and flood peaks. Peak flow 40,000 cfs - North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at \$2 million. Two houses destroyed and many others with substantial damage.
Fire	1960 Major Fires	No number	8/16/1960	Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian Hill, Slug Canyon Ridge, and Mountain House burned. Electrical Interruptions between Downieville and Sierra City.

10.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 10-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.



Table 10-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

10.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

There are no other jurisdiction-specific issues that have been identified based on a review of the results of the risk assessment, public involvement strategy.



10.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 10-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: Board of Directors	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • CIP 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: Board of Directors	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Board of Directors	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)
4	Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: Board of Directors	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time, General Fund	Short-Term (less than 5 years)
5	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Fire Chief Support: Chairman of the Fire Commission	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Table 10-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	38	High

Table 10-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards										
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms	
1		■					■	N/A		■		■	■	■	■	■	
2	■					■	■	N/A	■	■	■	■	■	■	■	■	
3	■					■	■	N/A	■	■	■	■	■	■	■	■	
4						■	■	N/A		■	■	■	■	■	■	■	
5	■					■	■	N/A	■	■	■	■	■	■	■	■	



10.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction’s needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 10-13.

Table 10-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
District staff supported the countywide outreach efforts for this plan	Throughout the planning process	About 200

10.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **District records (CIP) and local knowledge** used to complete an assessment of capabilities.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



11. SIERRA-PLUMAS JOINT UNIFIED SCHOOL DISTRICT



Source: Sierra-Plumas Joint Unified School District

11.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Sierra-Plumas Joint Unified School District. Members are listed in Table 11-1.

Table 11-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Sean Snider, Superintendent	Name and Title:	Randy Jones, Director of Business Services/CBO
Address:	P.O. Box 955 109 Beckwith Road Loyalton, CA 96118	Address:	P.O. Box 955 109 Beckwith Road Loyalton, CA 96118
Phone Number:	530-993-1660	Phone Number:	530-993-1660
Email:	ssnider@spjUSD.org	Email:	rjones@spjUSD.org
Contributors:			
Name and Title:	Sean Snider,		
Method of Participation:	Attended Steering Committee/Planning Partner meetings, developed annex		
Name and Title:	Randy Jones, Director of Business Services/CBO		
Method of Participation:	Coordinated with annex development, attended annex development meeting		



11.2 JURISDICTIONAL PROFILE

11.2.1 Overview

The Sierra-Plumas Joint Unified School District and Sierra County Office of Education serve all of Sierra County and the eastern quarter of Plumas County.

The eastern quarter of Plumas County lies within the boundaries of the Sierra-Plumas Joint Unified School District, and children from the towns of Vinton, Chilcoot, and Beckwourth attend school in Loyalton which is located in Sierra County.

Schools are envisioned where all children succeed, where all children feel safe, and where their curiosity is cultivated. An educational environment is provided that encourages productive, responsible citizens. The goal is to equip students with the tools to live and to contribute successfully in a rapidly changing world. Schools offer a challenging, meaningful, and relevant curriculum that values creativity, critical thinking, and effective communication. Students apply knowledge to new contexts and do so with honesty and integrity. Students learn to appreciate beauty and care for the environment as well as each other and ultimately understand that their actions make a difference.

11.2.2 Service Area

The Sierra-Plumas Joint Unified School District and Sierra County Office of Education serve all of Sierra County and the eastern quarter of Plumas County. The District serves an area of approximately 1,472 square miles and an estimated 400 students in grades TK through 12. The District provides public education services to the communities of Loyalton, Chilcoot, Vinton, Beckwourth, Sierraville, Calpine, Sierra City, and Downieville.

11.2.3 Governing Body

The District has a five-person Governing Board, with each member representing a defined geographical area of the District. As a single-district county, the District Governing Board serves as the Sierra County Office of Education Governing Board as well. The Governing Board assumes responsibility for the adoption of this plan. The District Superintendent will oversee the plan's implementation.

11.2.4 Assets

Asset	Value
Property (13-acre parcel in Loyalton)	\$1,300,000
Equipment	
7 School Busses	\$1,200,000
6 Fleet Vehicles	\$300,000
<i>Total:</i>	<i>\$1,500,000.00</i>
Critical Facilities	
Loyalton Elementary School	\$9,229,300
Loyalton (old Middle School)	\$2,237,340
Loyalton High School (with Gymnasium)	\$12,134,770
Downieville School (with Gymnasium)	\$11,018,230



Asset	Value
County Office of Education (Adult Education in 605 School St. Loyalton)	\$650,000
Total:	\$35,269,640.00

11.3 CURRENT TRENDS

Growth is limited in the District so the number of students served by the District is likely to remain the same.

11.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

11.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 11-2.

Table 11-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Comprehensive School Safety Plan	February 2025	Addresses safety of critical facilities and continuity of operations. Updated every year.

Opportunities to Expand Planning and Regulatory Capabilities

The district will expand planning and regulatory capabilities by implementing mitigation action 2: *Integrate the MJHMP into other plans that address natural hazards within the service area including:*

- *Comprehensive School Safety Plan.*

11.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 11-3.



Table 11-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	Yes, requires voter approval
User Fees for Water, Sewer, Gas, or Electric Service	Yes
<i>If yes, specify:</i> Fees are charged for outside groups that use the facilities	
Incur Debt through General Obligation Bonds	Yes, requires voter approval
Incur Debt through Special Tax Bonds	Yes, requires voter approval
Incur Debt through Private Activity Bonds	Unsure
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

11.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 11-4.

Table 11-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	No
Engineers or professionals trained in building or infrastructure construction practices	No
Planners or engineers with an understanding of natural hazards	No
Staff with training in benefit-cost analysis	No
Surveyors	No
Personnel skilled or trained in GIS applications	No
Scientist familiar with natural hazards in local area	No
Emergency manager	No
Grant writers	Somewhat
<i>If Yes, Department /Position:</i> Superintendent	
Procurement Services and Management	Yes
<i>If Yes, Department /Position:</i> Superintendent	

Opportunities to Expand Administrative and Technical Capabilities

The District may need to engage the services of a consultant for grant writing if a funding opportunity opens up.



11.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 11-5.

Table 11-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	Yes, upload capability
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<i>If yes, briefly describe:</i>	Sierra County Safety Taskforce
Do you have any other programs in place that could be used to communicate hazard-related information?	Yes
<i>If yes, briefly describe:</i>	Mass email, text message, and phone call system
Do you have any established warning systems for hazard events?	Yes
<i>If yes, briefly describe:</i>	P.A. and Bell System / Mass email, text message, and phone call / School and District Safety Plans /

Opportunities to Expand Education and Outreach Capabilities

The District will continue to enhance outreach through the Sierra County Safety Taskforce.

11.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction's capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 11-6.

Table 11-6. Community Classifications

	Participating?	Classification or Number	Date Classified
FIPS Code	No	N/A	N/A
UEI No.	Yes	DLBWHL9B2WN9	N/A
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	No	N/A	N/A
StormReady	No	N/A	N/A
Firewise	No	N/A	N/A



Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this subsection. Currently, there is no need to identify specific community classifications for expansion. Currently, there is no need to identify specific community classifications for expansion.

11.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 11-7.

Table 11-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Medium
<i>Comment:</i> <i>There is a small fleet.</i>	
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	Low
Local authority over sectors likely to be negative impacted	Low
Public Capacity	
Residents’ knowledge of and understanding of climate risk	Low
Residents’ support of adaptation efforts	Low
Residents’ capacity to adapt to climate impacts	Low
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

As busses need to be replaced, the District will purchase electric-powered rather than diesel busses.



11.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

11.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **The Comprehensive School Safety Plan**—This plan includes a guiding principle that addresses annual facility evaluation to ensure that critical facilities are safe from natural hazards and may use data from this MJHMP in future updates.

11.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (***Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3***). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County or the City of Loyalton.

11.7 RISK ASSESSMENT

11.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 11-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.



Table 11-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildfire	2024 Bear Fire	N/A	N/A	Schools were closed for 4 days because of so many staff and student evacuations. The days had to be made up later in the year. Perishable food was nearly lost due to power outages. No structures were burned, but fencing was damaged and there was fire suppression damage.
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Downieville School roof was significantly damaged. All school roofs sustained some damage. Moderate snow added to an already heavy mountain snow-pack, bringing snow removal challenges for mountain highways, with travel delays and periods of chain controls. There were embedded thunderstorms with small hail in the foothills and heavy snow showers in the mountains. Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees.
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	School closures and delays. A wet system brought periods of heavy rain with flooding. Heavy rain fell bringing widespread roadway flooding, as well as local mudslides, flash flooding, with evacuations ordered in some areas. Thunderstorms with large hail, strong damaging winds, and tornadoes were reported. Strong winds gusting to 55 to 75 mph brought down numerous trees and powerlines across the area, causing widespread and extended power outages.
Storm	December 2021 Storms	2022-03	12/30/2021	School closures and delays. Downed powerlines, power failures, trees down on houses.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	Schools were closed because of staff and student evacuations. The days had to be made up later in the year. The Loyaltan Fire began on 8/14/2020 and was active for 12 days, burning over 47,000 acres.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Impacts to staffing capacity countywide. Funding was received from the state and federal government to implement a virtual education program.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	School closures and delays. A storm system brought wind damage to trees, thunderstorms with hail, and snow accumulating down into the foothills of the Sierra and Coastal Range. Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	School closures and delays. Two significant waves of precipitation associated with an atmospheric river brought heavy rain and higher elevation (mainly above 6,500 feet) snowfall to northeast California. Flooding from creeks covered the intersection of Highways 49 and 89 in Sierraville. Shallow water was photographed up against buildings at the Sierraville Ranger Station. A washout caused the closure of Highway 49 between Sattley and the ,Yuba Pass. Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides and downed trees caused structural damage to houses and other structures.
Flood	2008 January Storms	2008-01	1/5/2008	School closures and delays. Snowfall totals of 3 to 11 feet were reported in the northern Sierra Nevada Mountains, with winds up to and possibly exceeding 100 mph coupled with heavy snow bringing blizzard conditions.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	School closures and delays. Storm after storm affected northern and central California with extreme precipitation impacting the Sierra County region. Road and highway damage, slides, trees down, power outages, flooding.
Flood	Extreme Rainfall	2005-07	11/7/2005	School closures and delays. Snow levels were 4,000 to 5,500 feet and snow amounts up to 18 inches in the higher elevations.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	School closures and delays. Sierra County experienced severe flooding due to a series of powerful storms that brought heavy rain and rapid snowmelt from the Sierra Nevada mountains. This event was part of a larger, devastating flood across Northern California, triggered by an atmospheric river. The storms led to widespread inundation, levee breaches, and significant damage to infrastructure and property in the region. Highest recorded flooding, peak flow 45,500 cfs. Twelve structures destroyed, at least 40 others damaged, debris clearance, emergency protective measures, significant highway, and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, Mudflow	DR-1046-CA 95-03	3/12/1995	School closures and delays. A powerful Pacific jet stream brought heavy precipitation. These storms, exacerbated by a moderate to strong El Nino, resulted in significant damage and loss of life. The storms caused flooding on both large and small rivers, with some areas experiencing record-breaking flow rates. Storm damage countywide approximately \$250,000.
Flood	Severe Winter Storm, Mudslides and Landslides, and Flooding	DR-979-CA 93-01	2/3/1993	School closures and delays. Sierra County experienced flooding and road closures. Damaged structures, roads, utilities from flooding, mudslides, rockslides, trees falling and an avalanche.
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire 8500 acres.
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	School closures and delays. A series of powerful storms brought intense rain and snow to Northern and Central California, causing widespread flooding, mudslides, and significant damage, particularly in Sierra County. \$1.3 million in Damage Sierra County. Damage to homes, motels, roads, and utilities.
Flood	Heavy Rains and Flooding	82-03	4/1/1982	School closures and delays. In April 1982, Sierra County experienced severe storms and flooding. The storms brought heavy rainfall and snowmelt, leading to overflowing rivers and streams, causing significant damage to infrastructure and property.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	1980 April Storms	80-01 thru 80-25	4/1/1980	School closures and delays. Significant flooding was experienced across California, with the Sierra Nevada and its foothills experiencing substantial runoff.
Drought	Drought	EM-3023-CA	1/20/1977	Impacts to the sports field. Drought conditions impacted the entire County during one of the driest years on record in California.
Flood	Severe Storms and Flooding	DR-253-CA	1/26/1969	School closures and delays. A series of storms caused significant flooding across the state, with the San Joaquin basin, Sacramento basin, central coast drainages, and the Truckee River and Honey Lake basins being heavily impacted. Warm air during the storms resulted in rain falling at high elevations, contributing to melting snowpack and increased runoff in the Sierra Nevada. Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees.
Flood	Heavy Rains & Flooding	DR-183-CA	12/24/1964	School closures and delays. The Christmas flood of 1964 caused significant flooding in Sierra County as part of a larger disaster affecting multiple northwestern states. This event was characterized by heavy rainfall, melting snow, and frozen ground, leading to extreme runoff and devastating floods. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	School closures and delays. The 1963 floods in Sierra County were caused by a warm-type storm that brought heavy rainfall to the Sierra Nevada mountains. The storm resulted in rapid stream rises and flood peaks. Peak flow of 40,000 cfs – North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at 2 million dollars. Two houses destroyed and many others with substantial damage.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Fire	1960 Major Fires	No number	8/16/1960	Schools were closed because of staff and student evacuations. The days had to be made up later in the year. Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian Hill, Slug Canyon Ridge, and Mountain House burned. Electrical interruptions between Downieville and Sierra City.

11.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 11-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.

Table 11-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.30	.80	.10	.30	2.7	Medium
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.30	3.0	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.30	3.0	High



11.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

The following jurisdiction-specific issue has been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Weather events and other hazards like wildfires trigger power outages. The District buildings/schools are not currently equipped with emergency backup power sources.



11.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 11-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: Superintendent Support: District Board	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • Comprehensive School Safety Plan 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: Superintendent Support: District Board	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Superintendent	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
4	<p>Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power.</p> <p>The five schools in Sierra County serve as critical infrastructure to the County during emergencies. They can serve as shelters and heating/cooling centers. All five schools do not have backup power and will need a source of power to provide services during emergencies. The School District will purchase and install generators at the following locations:</p> <ul style="list-style-type: none"> • Downieville School – 130 School St., Downieville • Loyalton Elementary School – 111 Beckwith St., Loyalton • Loyalton High School – 700 Fourth St., Loyalton • Sierra-Plumas Joint Unified School District & Sierra County Office of Education – 109 Beckwith Rd., Loyalton • Sierra County Schools for Adults – 605 School St., Loyalton <p>(Coordinates with Sierra County Unincorporated Action # 23)</p>	Food, Hydration, Shelter; Health and Medical; Safety and Security	Existing	1, 2	Lead: Superintendent Sierra-Plumas Joint Unified School District and Sierra County Office of Education Support: District Board, OES	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, Staff Time, General Fund	Long-Term (5 years or more)
5	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: Superintendent	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Table 11-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	38	High

Table 11-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards										
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms	
1		■					■	N/A		■		■	■	■	■	■	
2	■					■	■	N/A	■	■	■	■	■	■	■	■	
3	■					■	■	N/A	■	■	■	■	■	■	■	■	
4						■	■	N/A		■	■	■	■	■	■	■	
5	■					■	■	N/A	■	■	■	■	■	■	■	■	



11.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction's needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 11-13.

Table 11-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
District staff supported the countywide outreach efforts for this plan	Throughout the planning process	About 200
4th grade program for wildfire go-bag preparation	Winter 2024/2025	25
Outreach about planning process and draft plan review opportunities	Spring 2025	65-70

11.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **District Website** was used to develop content for the jurisdictional profile and capability assessment
- **Insurance Records** - Property Schedule was used for asset values

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



12. SIERRAVILLE PUBLIC UTILITY DISTRICT



Source: Sierraville Public Utility District

12.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Sierraville Public Utility District. Members are listed in Table 12-1.

Table 12-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Elizabeth Archer District Clerk Secretary	Name and Title:	Patrick Baird, District Water Operator
Address:	PO Box 325 305 S. Lincoln Sierraville, CA 96126	Address:	PO Box 325 305 S. Lincoln Sierraville, CA 96126
Phone Number:	530-414-5994	Phone Number:	530-386-0336
Email:	info@sierravillepud.gov	Email:	mountain.waterservices@gmail.com
Contributors:			
Name and Title:	Thomas Archer, Sierraville PUD District Counsel		
Method of Participation:	Legal Oversight		
Name and Title:	Bill Quesnel, Sierraville District Engineer, Acumen Engineering LLC		
Method of Participation:	Technical Capabilities, Infrastructure and Capital Improvement Projects		
Name and Title:	Lee Wright, Director, President		
Method of Participation:	Supported annex development		
Name and Title:	Tom McElroy, Director, Vice President and CFO		
Method of Participation:	Supported annex development		
Name and Title:	Tim Larson, Director		
Method of Participation:	Supported annex development		



Contributors:	
Name and Title:	Glenn Hawxhurst, Director
Method of Participation:	Supported annex development
Name and Title:	Travis Spencer, Director
Method of Participation:	Supported annex development

12.2 JURISDICTIONAL PROFILE

12.2.1 Overview

The Sierraville Public Utility District (SPUD or District) was organized under the Public Utility Act of 1921. The boundaries of the District were defined, and a petition was circulated to place a measure before the voters within District bounds. The petition was signed by at least 15% of the “qualified electors” and was presented to the Sierra County Board of Supervisors, which body authorized a Special Election. The ballot measure was entitled “Incorporation and Formation of the Sierraville Public Utility District.” The voters approved the measure, and SPUD became a Special District with its first Directors being elected on August 2, 1945.

SPUD is a Public Agency which owns, operates, and maintains its water system providing water for domestic and fire suppression purposes to its customers located within its service territory generally described as the Community of Sierraville, California. Domestic demand is a combination of single-family residential and commercial accounts, including the Tahoe National Forest Sierraville Ranger District Station, two restaurants, one café, two small hotels, and the Caltrans Maintenance facility.

The District’s Mission is to provide a reliable supply of potable water that meets all State of California and Federal EPA requirements at the lowest possible cost to its customers. The system is permitted by the State Water Resources Control Board (SWRCB) Division of Drinking Water and operated by Mountain Water System Management.

The sole source of water is Railroad Spring, which consists of east and west collection systems. Railroad Spring is classified by the SWRCB as a percolating ground water source, located on Tahoe National Forest land and operated by the District under Special Use Permit 2007-4 (V.01/2014). The facilities occupy approximately 1.16 acres of land (all publicly owned), and the Permit allows “continued operation and maintenance of the existing buried collection system at Railroad Spring including a spring, fenced enclosure, pipeline, pump house, powerline and access road along with new construction activities and improvements.”

In September 1958, the District received the assignment of the water rights from Randolph Water Company, recorded August 16, 1960, in Volume 25, Page 294, Official Records of Sierra County. The Members of Randolph Water Company joined in and signed the Agreement of Water Rights, recorded November 6, 1964, in Volume 38 Page 476, Official Records of Sierra County. The Agreement of Water Rights, signed by the Members of Randolph Water Company, provided in that the Water Users/Members of the Town of Randolph assigned to the District all of their right, title, and interest in and to the “water rights”, as defined and adjudicated in the Decree for the Middle Fork of the Feather River and Its Tributaries, filed with the Plumas County Superior Court.



SPUD has no employees or staff. The District's Bookkeeper/Business Manager, Water Operator, Legal Counsel, and Professional Engineer are all independently contracted.

12.2.2 Service Area

The District serves an area of approximately 0.65 square miles (425 acres) and an estimated 250 residents and provides water services to the community of Sierraville within the District's Boundaries.

12.2.3 Mitigation Success Stories

Even though this is the first hazard mitigation planning effort for the District, several completed mitigation activities demonstrate the District's ongoing commitment to mitigation:

- The combined capacity of the District's water storage tanks is 415,000 gallons. This amount provides Maximum Day Demand plus ISO identified fire protection requirements for structures within the District's service area.
- The District's recently constructed booster pump station is fire resistant to the extent possible including non-flammable construction materials, defensible space around the facility, and stationary emergency generator with buried fuel tank (propane) to be able to operate the station for extended periods of time.
- The District's water storage tanks are steel construction with defensible space clearing around the tanks.

12.2.4 Governing Body

The District is governed by an elected five-member Board of Directors, which assumes responsibility for the adoption of this plan. The Board of Directors will oversee the plan's implementation.

12.2.5 Assets

Asset	Value
Property	
Land; Railroad Springs Easement; Nichols Mill Road	\$35,937
Equipment	
SCADA System (Storage Tanks and Booster Pump Station)	\$25,000
Booster Pump Station Including Emergency Generator (Nichols Mill Road)	\$2,325,876
Water Storage Tanks and Solar Power Panels (Randolph Hill)	\$1.3 M including both tanks
Water Distribution System (4.5 miles at \$1.32M/mile) (Service Area)	\$5,940,000
Total:	\$9,626,273
Critical Facilities	
All of the above assets are necessary to provide and maintain a source of water for fire protection and potable domestic supply for public health and safety to District's service area and customers during natural hazard events	



12.3 CURRENT TRENDS

The District has observed minimal population growth over the past 20 years (52 persons according to the 2000 and 2020 census).

12.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the MJHMP describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand or improve upon capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

12.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 12-2.

Table 12-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Construction Standards Handbook	March 2025	Provides standards for customers who need to replace their private water lines
Sierraville Public Utility District Water Ordinance 07-10	Ratified & Adopted 08.15.2018	Addresses water conservation and drought
Emergency Operations/Response Plan	Update in Progress	

Opportunities to Expand Planning and Regulatory Capabilities

The District is currently updating its Emergency Operations Plan.

12.4.2 Fiscal Capabilities

Assessing a jurisdiction’s fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 12-3.



Table 12-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	Yes
<i>If yes, specify:</i> Water Service Fees	
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting countywide fiscal mitigation action listed in Volume 1 CW-3: *Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

12.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 12-4.



Table 12-4. Administrative and Technical Capabilities

Staff/Personnel Resource		Available?
Planners or engineers with knowledge of land development and land management practices		Yes
<i>If Yes, Department /Position:</i>	The District retains both Legal Counsel and a Professional Engineer	
Engineers or professionals trained in building or infrastructure construction practices		Yes
<i>If Yes, Department /Position:</i>	The District retains both Legal Counsel and a Professional Engineer	
Planners or engineers with an understanding of natural hazards		Yes
<i>If Yes, Department /Position:</i>	As above	
Staff with training in benefit-cost analysis		No
Surveyors		Yes
<i>If Yes, Department /Position:</i>	As needed on given Projects	
Personnel skilled or trained in GIS applications		No
Scientist familiar with natural hazards in local area		No
Emergency manager		Yes
<i>If Yes, Department /Position:</i>	The District retains a Certified Water Operator and a Water Emergency Plan Protocol	
Grant writers		Yes
<i>If Yes, Department /Position:</i>	District Clerk Secretary	
Procurement Services and Management		No

Opportunities to Expand Administrative and Technical Capabilities

There is no need to expand these capabilities beyond what the District already has.

12.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 12-5.

Table 12-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	Yes, Maintenance
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
Do you have any other programs in place that could be used to communicate hazard-related information?	No
Do you have any established warning systems for hazard events?	No

Opportunities to Expand Education and Outreach Capabilities

The District could expand the website for hazard communication.



12.4.5 Community Classifications

Other programs, such as StormReady, can enhance a jurisdiction’s ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction’s capability to go beyond minimum regulatory requirements to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 12-6.

Table 12-6. Community Classifications

	Participating?	Number or Classification	Date Classified
FIPS Code	No	N/A	N/A
UEI No.	Yes	Unsure	N/A
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	No	N/A	N/A
StormReady	No	N/A	N/A
Firewise	No	N/A	N/A

Opportunities to Expand Community Classification Capabilities

Any expansion to the local capabilities identified in this section are likely to benefit the community classifications listed in this subsection. Currently, there is no need to identify specific community classifications for expansion. Currently, there is no need to identify specific community classifications for expansion.

12.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction’s ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community’s adaptive capacity for the impacts of climate change is presented in Table 12-7.



Table 12-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating ^a
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Jurisdiction-level monitoring of climate change impacts	Low
Technical resources to assess proposed strategies for feasibility and externalities	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low
Capital planning and land use decisions informed by potential climate impacts	Low
Participation in regional groups addressing climate risks	Low
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Identified strategies for greenhouse gas mitigation efforts	Low
Identified strategies for adaptation to impacts	Low
Champions for climate action in local government departments	Low
Political support for implementing climate change adaptation strategies	Low
Financial resources devoted to climate change adaptation	Low
Local authority over sectors likely to be negative impacted	Low
Public Capacity	
Residents' knowledge of and understanding of climate risk	Unsure
Residents' support of adaptation efforts	Unsure
Residents' capacity to adapt to climate impacts	Unsure
Local economy current capacity to adapt to climate impacts	Low
Local ecosystems capacity to adapt to climate impacts	Low

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

Opportunities to Expand Adaptive Capacity Capabilities

The District has no need to expand this capacity beyond what is currently being done.

12.5 INTEGRATION

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the MJHMP will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

12.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or



enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- Construction of an alternate water source (i.e., deep well) to supplement Railroad Spring source in process. The well will be less susceptible to contamination due to fire or other hazardous events than Railroad Springs.
- Emergency Operations/Response Plan – Currently undergoing an update which will better identify the chain of command before a hazard event occurs.

12.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the NFIP because they lack the permit authorities to regulate new development in the floodplain (***Title 44 of the Code of Federal Regulations (44 CFR), Section 60.3.***). However, any new assets or infrastructure developed by the district within the Special Flood Hazard Area (SFHA) would be regulated by the floodplain regulations established by the County.

12.7 RISK ASSESSMENT

12.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 12-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this MJHMP.

Table 12-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Wildfire	2024 Bear Fire	N/A	N/A	No structures were burned, but fencing was damaged and there was fire suppression damage.
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	Moderate snow added to an already heavy mountain snow-pack, bringing snow removal challenges for mountain highways, with travel delays and periods of chain controls. There were embedded thunderstorms with small hail in the foothills and heavy snow showers in the mountains. Moderate flooding, road and highway damage, communication and electrical utility interruption and damage, slides, and downed trees.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	A wet system brought periods of heavy rain with flooding. Heavy rain fell bringing widespread roadway flooding, as well as local mudslides, flash flooding, with evacuations ordered in some areas. Thunderstorms with large hail, strong damaging winds and tornadoes were reported. Strong winds gusting to 55 to 75 mph brought down numerous trees and powerlines across the area, causing widespread and extended power outages.
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	The Loyaltan Fire began on 8/14/2020 and was active for 12 days, burning over 47,000 acres.
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	Impacts to staffing capacity countywide.
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	A storm system brought wind damage to trees, thunderstorms with hail, and snow accumulating down into the foothills of the Sierra and Coastal Range. Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	Two significant waves of precipitation associated with an atmospheric river brought heavy rain and higher elevation (mainly above 6,500 feet) snowfall to northeast California. Flooding from creeks covered the intersection of Highways 49 and 89 in Sierraville. Shallow water was photographed up against buildings at the Sierraville Ranger Station. A washout caused the closure of Highway 49 between Sattley and the Yuba Pass. Severe flooding, road and highway damage, including significant major slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees caused structural damage to houses and other structures.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	2008 January Storms	2008-01	1/5/2008	Snowfall totals of 3 to 11 feet were reported in the northern Sierra Nevada Mountains, with winds up to and possibly exceeding 100 mph coupled with heavy snow bringing blizzard conditions.
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	Storm after storm affected northern and central California with extreme precipitation impacting the Sierra County region. Road and highway damage, slides, trees down, power outages, flooding.
Flood	Extreme Rainfall	2005-07	11/7/2005	Snow levels were 4,000 to 5,500 feet and snow amount up to 18 inches in the higher elevations. \$504,323
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1155-CA 97-01	1/4/1997	Sierra County experienced severe flooding due to a series of powerful storms that brought heavy rain and rapid snowmelt from the Sierra Nevada mountains. This event was part of a larger, devastating flood across Northern California, triggered by an atmospheric river. The storms led to widespread inundation, levee breaches, and significant damage to infrastructure and property in the region. Highest recorded flooding, peak flow 45,500 cfs. Twelve structures destroyed, at least 40 others damaged, debris clearance, emergency protective measures, significant highway, and road failures.
Severe Storm	Severe Winter Storms, Flooding Landslides, and Mudflow	DR-1046-CA 95-03	3/12/1995	A powerful Pacific jet stream brought heavy precipitation. These storms, exacerbated by a moderate to strong El Nino, resulted in significant damage and loss of life. The storms caused flooding on both large and small rivers, with some areas experiencing record-breaking flow rates. Storm damage countywide approximately \$250,000.
Flood	Severe Winter Storm, Mudslides and Landslides, and Flooding	DR-979-CA 93-01	2/3/1993	Sierra County experienced flooding and road closures. Damaged structures, roads, utilities from flooding, mudslides, rockslides, trees falling, and an avalanche.
Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	Palmer and Big Fires and the Indian Fire (8,500 acres).



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	Severe Storms and Flooding	DR-758-CA 86-01	2/21/1986	A series of powerful storms brought intense rain and snow to Northern and Central California, causing widespread flooding, mudslides, and significant damage, particularly in Sierra County. \$1.3 million in Damage Sierra County. Damage to homes, motels, roads, and utilities.
Flood	Heavy Rains and Flooding	82-03	4/1/1982	In April 1982, Sierra County experienced severe storms and flooding. The storms brought heavy rainfall and snowmelt, leading to overflowing rivers and streams, causing significant damage to infrastructure and property.
Flood	1980 April Storms	80-01 thru 80-25	4/1/1980	Significant flooding was experienced across California, with the Sierra Nevada and its foothills experiencing substantial runoff.
Drought	Drought	EM-3023-CA	1/20/1977	Drought conditions impacted the entire County during one of the driest years on record in California.
Flood	Severe Storms and Flooding	DR-253-CA	1/26/1969	A series of storms caused significant flooding across the state, with the San Joaquin basin, Sacramento basin, central coast drainages, and the Truckee River and Honey Lake basins being heavily impacted. Warm air during the storms resulted in rain falling at high elevations, contributing to melting snowpack and increased runoff in the Sierra Nevada. Road and highway damage, including significant major and minor slide activity on Highway 49, communication and electrical utility interruption and damage, mudslides, and downed trees.
Flood	Heavy Rains and Flooding	DR-183-CA	12/24/1964	The Christmas flood of 1964 caused significant flooding in Sierra County as part of a larger disaster affecting multiple northwestern states. This event was characterized by heavy rainfall, melting snow, and frozen ground, leading to extreme runoff and devastating floods. Major washouts and slides on state highway and county roads. Many structures suffered substantial damage.



Type of Event	Declaration Title	State or Federal Disaster No.	Declaration Date	Damage Assessment
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	The 1963 floods in Sierra County were caused by a warm-type storm that brought heavy rainfall to the Sierra Nevada mountains. The storm resulted in rapid stream rises and flood peaks. Peak flow 40,000 cfs - North Yuba River Bridge on SRT 49 completely destroyed. Total losses in the County are estimated at \$2 million. Two houses destroyed and many others with substantial damage.
Fire	1960 Major Fires	No number	8/16/1960	Six major fires ignited by a lightning storm. New York Ravine, Wolf Creek near Alleghany, Indian Hill, Slug Canyon Ridge, and Mountain House burned. Electrical Interruptions between Downieville and Sierra City.

12.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the PRI, a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 12-9 presents a local ranking of all hazards of concern for which this MJHMP provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy.

Table 12-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High



12.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this MJHMP provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

There are no additional jurisdiction-specific issues that have been identified based on a review of the results of the risk assessment, public involvement strategy.



12.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 12-10. Hazard Mitigation Action Plan Matrix

Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	Existing	1, 3, 5	Lead: District Water Operator Support: Board of Directors	Very High (\$1,000,000 and above)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Long-Term (5 years or more)
2	Integrate the MJHMP into other plans that address natural hazards within the service area including: <ul style="list-style-type: none"> • Emergency Operations/Response Plan 	Food, Hydration, Shelter	New and Existing	3, 5	Lead: District Water Operator	Low (\$0-\$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: District Water Operator	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)



Action No.	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Estimated Cost	Potential Funding Sources	Timeline
4	Purchase generators for District-owned critical facilities and infrastructure that lack adequate backup power.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation	Existing	1, 2	Lead: District Water Operator	High (\$250,000-\$1,000,000)	FEMA HMGP Grants, FMA Grant, Staff Time, General Fund	Short-Term (less than 5 years)
5	Support the countywide mitigation actions outlined in Volume 1 of this MJHMP.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; HazMat; Water Systems	New and Existing	3, 5	Lead: District Water Operator	Low (\$0-\$50,000)	Staff Time	Short-Term (less than 5 years)

Table 12-11. Mitigation Action Prioritization

Action No.	Life Safety	Property Protection	Cost-Effectiveness	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Equity Priority Community	Administrative Capacity	Multi-Hazard	Timeline	Stakeholder Support	Other Local Objective	Support Policies	Total Score	Priority
1	3	3	3	3	3	0	0	0	3	1	3	0	3	3	3	32	High
2	0	1	3	3	3	1	0	0	3	3	3	3	3	3	3	34	High
3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	36	High
4	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	41	High
5	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	38	High



Table 12-12. Mitigation Action Classification and Natural Hazards Addressed

Action No.	Mitigation Classification						Natural Hazards									
	Local Plans and Regulations	Structure and Infrastructure Projects	Education and Awareness Programs	Natural Systems Protection	Climate Resiliency	Community Capacity Building	Avalanche	Dam Failure	Drought	Earthquake	Extreme Heat	Flood	Landslide/Mass Movement	Volcanic Activity	Wildfire	Winter Storms
1		■					■	N/A		■		■	■		■	■
2	■					■	■	N/A	■	■	■	■	■	■	■	■
3	■					■	■	N/A	■	■	■	■	■	■	■	■
4						■	■	N/A		■	■	■	■	■	■	■
5	■					■	■	N/A	■	■	■	■	■	■	■	■



12.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction’s needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 12-13.

Table 12-13. Public Outreach

Local Outreach Activity	Date	Number of People Involved
District staff supported the countywide outreach efforts for this plan	Throughout the planning process	About 200

12.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex:

- Sierraville PUD Preliminary Engineering Report Tank Replacement Project, August 2016 informed the capability assessment.
- Sierraville PUD Preliminary Engineering Report Groundwater Well Project, July 2024 informed the capability assessment.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.



APPENDIX A. PLANNING PARTNER EXPECTATIONS

The federal Disaster Mitigation Act (DMA) of 2000 (Public Law 106-390), commonly known as the 2000 Stafford Act amendments, was approved by Congress on October 10, 2000. This act required state and local governments to develop HMPs as a condition for federal grant assistance. Among other things, this legislation reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide. DMA 2000 is aimed primarily at the control and streamlining of the administration of federal disaster relief and programs to promote mitigation activities. Prior to 2000, federal legislation provided funding for disaster relief, recovery, and some hazard mitigation planning. The DMA improves upon the planning process by emphasizing the importance of communities planning for disasters before they occur.

The Disaster Mitigation Act defines a “local government” as:

Any county, municipality, city, town, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

Any local government wishing to pursue funding afforded under FEMA Hazard Mitigation Grant Programs must have an approved HMP to be eligible to apply for these funds.

One of the goals of the multi-jurisdictional approach to hazard mitigation planning is to achieve compliance with the DMA for all participating members in the planning effort. DMA compliance must be certified for each member to maintain eligibility for the benefits under the DMA. Whether the planning process generates ten individual plans or one large plan that has a chapter for each partner jurisdiction, the following items must be addressed by each planning partner to achieve DMA compliance:

- **Participate in the Process.** It must be documented in the plan that each planning partner “participated” in the process that generated the plan. Participation can vary based on the type of planning partner (i.e., City versus a Special-Purpose District). However, the level of participation must be defined and the extent for which this level of participation has been met for each partner must be contained in the plan context.
- **Consistency Review.** Review of existing documents pertinent to each jurisdiction to identify policies or recommendations that are not consistent with those documents reviewed in producing the “parent” plan or have policies and recommendations that complement the hazard mitigation initiatives selected (i.e., comp plans, basin plans, or hazard-specific plans).
- **Action Review.** For plan updates, a review of the strategies from your prior action plan to determine those that have been accomplished and how they were accomplished; and why those that have not been accomplished were not completed.



- **Update Localized Risk Assessment.** Personalize the Risk Assessment for each jurisdiction by removing any hazards not associated with the defined jurisdictional area (e.g. tsunami and coastal erosion hazards for inland jurisdictions) or redefining vulnerability based on a hazard's impact to a jurisdiction. This phase will include the following:
 - A ranking of the risk
 - A description of the number and type of structures at risk
 - An estimate of the potential dollar losses to vulnerable structures
 - A general description of land uses and development trends within the community, so that mitigation options can be considered in future land use decisions.
- **Capability Assessment.** Each planning partner must identify and review their individual regulatory, technical, and financial capabilities with regards to the implementation of hazard mitigation actions.
- **Prioritize Mitigation Recommendations.** Identify and prioritize mitigation recommendations specific to each jurisdiction's defined area.
- **Create an Action Plan.**
- **Incorporate Public Participation.** Each jurisdiction must present the Plan to the public for comment at least once, within two weeks prior to adoption.
- **Plan Adoption.** The updated plan must be adopted by each jurisdiction following FEMA approval.

One of the benefits to multi-jurisdictional planning is the ability to pool resources. This means more than monetary resources. Resources such as staff time, meeting locations, media resources, technical expertise will all need to be utilized to generate a successful plan. In addition, these resources can be pooled such that decisions can be made by a peer group applying to the whole and thus reducing the individual level of effort of each planning partner. This will be accomplished by the formation of a steering committee made up of planning partners and other "stakeholders" within the planning area. The size and makeup of this steering committee will be determined by the planning partnership. This body will assume the decision-making responsibilities on behalf of the entire partnership. This will streamline the planning process by reducing the number of meetings that will need to be attended by each planning partner. The assembled Steering Committee for this effort will meet monthly on an as needed basis as determined by the planning team, and will provide guidance and decision making during all phases of the plan's development.

With the above participation requirements in mind, each partner is expected to aid this process by being prepared to develop its section of the plan. To be an eligible planning partner in this effort, each planning partner shall provide the following:

- A. *If you have not already submitted a "Letter of Intent (LOI) to participate" or Resolution to participate (see Exhibit A), you must submit an LOI.*
- B. Designate a lead and alternate points of contact for this effort. The lead will be listed as the hazard mitigation point of contact for your jurisdiction in the plan.
- C. If requested, provide support in the form of a mailing list and public information materials, such as newsletters, newspapers, or direct mailed brochures, required to implement the public engagement strategy developed by the Steering Committee.



- D. Participate in the entire process (from first partner meeting to plan completion). There will be many ways as this plan evolves to participate. Opportunities such as:
- Attending Steering Committee meetings
 - Completing the phased Jurisdiction Annex Process
 - Participating in public review and comment periods prior to adoption

At each of these meetings, attendance will be recorded. Attendance records will be used to document participation for each planning partner. No thresholds will be established as minimum levels of participation. However, each planning partner should attempt to attend all possible meetings and events.

- E. Designate a local planning team. Each planning partner will be asked to identify a lead point of contact and an alternate point of contact for their jurisdiction as well as other resources within that jurisdiction that can support or enhance the mitigation actions from this plan. For municipal planning partners, participants should include, at a minimum, representation from Planning, Public Works, and Emergency Management. For Special Purpose Districts, participants should include anyone responsible for facilities management and/or emergency management. All phases of the Jurisdictional Annex process should be conducted through these local planning teams.
- F. Complete both phases of the Jurisdictional Annex process. Volume 2 of the plan consists of jurisdictional specific components of the plan required under section 2016, 44CFR for multi-jurisdictional LHMPs. It is mission-critical to the ultimate approval of this plan update that these annexes are created or updated in accordance with the requirements. To achieve this compliance, the CPT will deploy the Jurisdictional Annex process in the following two phases over the course of this plan update process:
- Phase 1 - Jurisdiction Profiles and Prior Action Review, Core Capability Assessment
 - Phase 2 - Risk Ranking and Action Plan Development

Complete and thorough technical assistance will be available to all planning partners during this phased process.

Failure to meet deadlines specified for Phase 1 will not jeopardize and planning partner's eligibility for coverage under the plan. However, it is important to note that, if a planning partner does not meet the deadline for Phase 1, it is expected that the information submitted during Phase 2 will include all of the information requested under Phases 1 and 2.

Failure to submit a complete Jurisdictional Annex by the specified deadline for Phase 2 will result in a planning partner's removal from the Partnership for failure to meet the specified planning partner expectations.

Phase 2 will include a mandatory workshop that will focus on action plan development and prioritization. Attendance at the Phase 2 workshop will be tracked, and each planning partner must send at least one representative to the workshop to fully meet the participation requirements defined for this plan update process.



- G. Each partner will be asked to perform a “consistency review” of all technical studies, plans, ordinances specific to hazards to determine the existence of any not consistent with the same such documents reviewed in the preparation of the County (parent) Plan. For example, if your community has a floodplain management plan that makes recommendations that are not consistent with any of the County’s Basin Plans, that plan will need to be reviewed for probable incorporation into the plan for your area.
- H. Each partner will be asked to review the Risk Assessment and identify hazards and vulnerabilities specific to its jurisdiction. Contract resources will provide the jurisdiction-specific mapping and technical consultation to aid in this task, but the determination of risk and vulnerability will be up to each partner.
- I. Each partner will be asked to review and determine if the mitigation recommendations chosen in the parent plan will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the parent plan recommendations will need to be identified, prioritized, and reviewed to determine their benefits versus costs.
- J. Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed, and when it is estimated to occur.
- K. Each partner will be required to formally adopt the plan.

Templates and instructions to aid in the compilation of this information will be provided to all committed planning partners. Each partner will be asked to complete their templates in a timely manner and according to the timeline specified.

NOTE: Once this plan is completed, and DMA compliance has been determined for each partner, maintaining that eligibility will be dependent upon each partner implementing the plan implementation-maintenance protocol identified in the plan.