

DRAFT

# 2024 CHELAN COUNTY MULTI-JURISDICTION NATURAL HAZARD MITIGATION PLAN

Volume 2 – Planning Partner Annexes

PREPARED FOR



NOVEMBER 6, 2024



## Table of Contents

<b>1.</b>	<b>Introduction.....</b>	<b>1-1</b>
1.1	Background.....	1-1
1.2	The Planning Partnership .....	1-1
1.3	Annex Preparation Process .....	1-3
1.4	Mitigation Action Plan Development.....	1-4
1.5	Compatibility with Previous Approved Plans.....	1-5
1.6	Final Coverage Under the Plan .....	1-6
<b>Part 1. Annexes .....</b>	<b>1-1</b>	
<b>2.</b>	<b>Unincorporated Chelan County.....</b>	<b>2-1</b>
2.1	Local Hazard Mitigation Planning Team.....	2-1
2.2	Jurisdiction Profile .....	2-1
2.3	Current Trends.....	2-2
2.4	Capability Assessment.....	2-3
2.5	Integration with Other Planning Initiatives .....	2-11
2.6	Risk Assessment.....	2-12
2.7	Status of Previous Plan Actions .....	2-15
2.8	Hazard Mitigation Action Plan.....	2-20
2.9	Public Outreach .....	2-27
2.10	Information Sources Used for This Annex.....	2-27
<b>3.</b>	<b>City of Cashmere.....</b>	<b>3-1</b>
3.1	Local Hazard Mitigation Planning Team.....	3-1
3.2	Jurisdiction Profile .....	3-1
3.3	Current Trends.....	3-2
3.4	Capability Assessment.....	3-3
3.5	Integration with Other Planning Initiatives .....	3-10
3.6	Risk Assessment.....	3-10
3.7	Status of Previous Plan Actions .....	3-12
3.8	Hazard Mitigation Action Plan.....	3-14
3.9	Information Sources Used for This Annex.....	3-19
3.10	Hazard maps.....	3-19
<b>4.</b>	<b>City of Chelan.....</b>	<b>4-1</b>
4.1	Local Hazard Mitigation Planning Team.....	4-1
4.2	Jurisdiction Profile .....	4-1
4.3	Current Trends.....	4-2
4.4	Capability Assessment.....	4-3
4.5	Integration with Other Planning Initiatives .....	4-10
4.6	Risk Assessment.....	4-11
4.7	Status of Previous Plan Actions .....	4-12

4.8	Hazard Mitigation Action Plan .....	4-15
4.9	Information Sources Used for This Annex .....	4-21
4.10	Hazard maps.....	4-21
<b>5.</b>	<b>City of Entiat .....</b>	<b>5-1</b>
5.1	Local Hazard Mitigation Planning Team.....	5-1
5.2	Jurisdiction Profile .....	5-1
5.3	Current Trends.....	5-2
5.4	Capability Assessment.....	5-3
5.5	Integration with Other Planning Initiatives .....	5-10
5.6	Risk Assessment.....	5-11
5.7	Status of Previous Plan Actions .....	5-12
5.8	Hazard Mitigation Action Plan.....	5-14
5.9	Sources Used for This Annex .....	5-20
5.10	Hazard maps.....	5-20
<b>6.</b>	<b>City of Leavenworth.....</b>	<b>6-1</b>
6.1	Local Hazard Mitigation Planning Team.....	6-1
6.2	Jurisdiction Profile .....	6-1
6.3	Current Trends.....	6-2
6.4	Development.....	6-3
6.5	Capability Assessment.....	6-4
6.6	Integration with Other Planning Initiatives .....	6-11
6.7	Risk Assessment.....	6-12
6.8	Jurisdiction-Specific Vulnerabilities.....	6-13
6.9	Status of Previous Plan Actions .....	6-14
6.10	Hazard Mitigation Action Plan.....	6-16
6.11	Public Outreach .....	6-22
6.12	Information Sources Used for This Annex.....	6-22
6.13	Hazard maps.....	6-22
<b>7.</b>	<b>City of Wenatchee .....</b>	<b>7-1</b>
7.1	Local Hazard Mitigation Planning Team.....	7-1
7.2	Jurisdiction Profile .....	7-1
7.3	Current Trends.....	7-3
7.4	Capability Assessment.....	7-4
7.5	Integration with Other Planning Initiatives .....	7-10
7.6	Risk Assessment.....	7-13
7.7	Status of Previous Plan Actions .....	7-16
7.8	Hazard Mitigation Action Plan.....	7-18
7.9	Public Outreach .....	7-22
7.10	Information Sources Used for This Annex.....	7-22

7.11	Future Needs to Better Understand Risk/Vulnerability .....	7-23
7.12	Hazard maps.....	7-23
<b>8.</b>	<b>Cascadia Conservation District.....</b>	<b>8-1</b>
8.1	Local Hazard Mitigation Planning Team .....	8-1
8.2	Jurisdiction Profile .....	8-1
8.3	Current Trends.....	8-2
8.4	Capability Assessment.....	8-3
8.5	Integration with Other Planning Initiatives .....	8-9
8.6	Risk Assessment.....	8-10
8.7	Status of Previous Plan Actions .....	8-14
8.8	Hazard Mitigation Action Plan.....	8-16
8.9	Public Outreach .....	8-18
8.10	Information Sources Used for This Annex.....	8-18
<b>9.</b>	<b>Chelan County Flood Control Zone District.....</b>	<b>9-1</b>
9.1	Local Hazard Mitigation Planning Team .....	9-1
9.2	Jurisdiction Profile .....	9-1
9.3	Current Trends.....	9-2
9.4	Capability Assessment.....	9-2
9.5	Integration Review.....	9-6
9.6	Risk Assessment.....	9-7
9.7	Status of Previous Plan Actions .....	9-10
9.8	Hazard Mitigation Action Plan.....	9-15
9.9	Public Outreach .....	9-25
9.10	Information Sources Used for This Annex.....	9-25
<b>10.</b>	<b>Wenatchee Valley Fire Department .....</b>	<b>10-1</b>
10.1	Local Hazard Mitigation Planning Team .....	10-1
10.2	Jurisdiction Profile .....	10-1
10.3	Current Trends.....	10-3
10.4	Capability Assessment.....	10-3
10.5	Integration with Other Planning Initiatives .....	10-7
10.6	Risk Assessment.....	10-8
10.7	Status of Previous Plan Actions .....	10-10
10.8	Hazard Mitigation Action Plan.....	10-12
10.9	Information Sources Used for This Annex.....	10-18
<b>11.</b>	<b>Chelan County Fire District #3.....</b>	<b>11-1</b>
11.1	Local Hazard Mitigation Planning Team .....	11-1
11.2	Jurisdiction Profile .....	11-1
11.3	Current Trends.....	11-2
11.4	Capability Assessment.....	11-3

11.5	Integration with Other Planning Initiatives .....	11-7
11.6	Risk Assessment.....	11-8
11.7	Status of Previous Plan Actions .....	11-9
11.8	Hazard Mitigation Action Plan .....	11-12
11.9	Public Outreach .....	11-16
11.10	Information Sources Used for This Annex .....	11-16
<b>12.</b>	<b>Chelan Fire and Rescue (FD #7) .....</b>	<b>12-1</b>
12.1	Local Hazard Mitigation Planning Team .....	12-1
12.2	Jurisdiction Profile .....	12-1
12.3	Current Trends.....	12-3
12.4	Capability Assessment.....	12-3
12.5	Integration with Other Planning Initiatives .....	12-8
12.6	Risk Assessment.....	12-9
12.7	Hazard Mitigation Action Plan .....	12-11
12.8	Public Outreach .....	12-13
12.9	Information Sources Used for This Annex .....	12-13
<b>13.</b>	<b>Lake Wenatchee Fire and Rescue (Fire District #9) .....</b>	<b>13-1</b>
13.1	Local Hazard Mitigation Planning Team .....	13-1
13.2	Jurisdiction Profile .....	13-1
13.3	Current Trends.....	13-2
13.4	Capability Assessment.....	13-2
13.5	Integration with Other Planning Initiatives .....	13-7
13.6	Risk Assessment.....	13-8
13.7	Status of Previous Plan Actions .....	13-11
13.8	Hazard Mitigation Action Plan .....	13-13
13.9	Public Outreach .....	13-17
13.10	Information Sources Used for This Annex .....	13-17

## Appendices

**Appendix A** – Planning Partner Expectations

**Appendix B** – Linkage Procedures

**Appendix C** – Municipal Annex Instructions and Template

**Appendix D** – District Annex Instructions and Template

# 1. INTRODUCTION

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## 1.1 BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. All participating jurisdictions 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)).

A planning partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act for as many eligible local governments as possible. The Disaster Mitigation Act 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.”

Two types of planning partners participated in this process for distinct needs and capabilities:

- Incorporated municipalities (5 cities in Chelan County, and the unincorporated County)
- Special purpose districts (9 districts throughout the county).

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 Intent

The planning team solicited the participation of all eligible municipalities and special purpose districts at the outset of this project. A kickoff meeting was held on November 2, 2023, to identify potential stakeholders and planning partners for this process. The purpose of the meeting was to introduce the planning process to jurisdictions in the County that could have a stake in the outcome of the planning effort. All eligible local governments in the planning area were invited to attend. The goals of the meeting were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Review what a Hazard Mitigation Plan (HMP) and Community Wildfire Protection Plan (CWPP) are and why they are valuable to Chelan County
- Outline the work plan for this HMP and integrated CWPP.
- Describe the benefits of multi-jurisdictional planning.
- Outline planning partner expectations.

- Solicit planning partners.
- Solicit volunteers/recommendations for the steering committee.

Local governments wishing to join the planning effort were asked to provide the planning team with a “letter of intent to participate” that agreed to the planning partner expectations (see Appendix A) and designated a point of contact for their jurisdiction. In all, the planning team received formal commitment from 11 planning partners in addition to the County.

Maps included in the individual annexes of participating cities show hazard risk assessment areas in more detail. Countywide risk assessment maps for the entire planning area defined for this plan are provided in the risk assessment chapters of Volume 1 of the hazard mitigation plan.

### **1.2.2 Planning Partner Expectations**

The planning team developed the following list of planning partner expectations, which were provided and discussed at the kickoff meeting (see Appendix A for details):

- Complete a “letter of intent to participate.”
- Designate a lead point of contact for this effort.
- Support and participate in the selection and function of the Steering Committee.
- Provide support required to implement the public involvement strategy.
- Participate in the process through opportunities such as:
  - Steering Committee meetings
  - Public meetings or open houses
  - Workshops and planning partner specific training sessions
- Public review and comment periods prior to adoption.
- Attend the mandatory jurisdictional annex workshop.
- Complete the jurisdictional annex.
- 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.
- 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 hazard mitigation plan.

By adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria may result in a partner being dropped from the partnership by the Steering Committee, and thus losing eligibility under the scope of this plan.

### **1.2.3 Linkage Procedures**

Eligible local jurisdictions that did not participate in development of this multi-jurisdictional plan may comply with Disaster Mitigation Act requirements by linking to this plan following procedures outlined in Appendix B.

## 1.3 ANNEX PREPARATION PROCESS

### 1.3.1 Templates

Templates were created to help the planning partners prepare their jurisdiction-specific annexes. Separate templates were created for the two types of jurisdictions participating in this plan. The templates were created so that all criteria of Section 201.6 of 44 CFR would be, based on the partners' capabilities and mode of operation. The templates were set up to lead all partner through steps to generate Disaster Mitigation Act-required elements specific to their jurisdictions. The templates and their instructions are included in Appendix C of this volume.

### 1.3.2 Tool Kit

Each planning partner was provided with a tool kit to assist in completing the annex template and developing an action plan. The tool kits contained the following:

- A catalog of mitigation best practices and adaptive capacity
- The guiding principle, goals and objectives developed for the update to the plan
- Information on the FEMA Hazard Mitigation Assistance grant program
- Information on past hazard events that have impacted the planning area
- County-wide and jurisdiction-specific maps for hazards of concern
- The risk assessment results developed for this plan
- Information on climate change and expected impacts in the planning area
- Jurisdiction-specific annex templates, with instructions for completing them
- Mitigation action worksheets
- FEMA guidance on plan integration
- A copy of the presentation that was given at the workshop sessions.

### 1.3.3 Workshop

All partners were required to participate in a technical assistance workshop, where key elements of the template were discussed, and the templates were subsequently completed by a designated point of contact for each partner and a member of the planning team. Two workshops, held on July 30 and July 31, 2024, addressed the following topics:

- Overview of Phase 3 of the jurisdictional annex process
- The templates and the tool kit
- Natural events history
- Jurisdiction-specific issues
- Risk ranking
- Developing your action plan using the mitigation action worksheets
- Cost/benefit review
- Prioritization protocol
- Next steps



## 1.4 MITIGATION ACTION PLAN DEVELOPMENT

### 1.4.1 Risk Ranking

In the risk-ranking exercise, each planning partner was asked to review the ranked risk specifically for its jurisdiction, based on the impact on its population and/or facilities. Municipalities based this ranking on probability of occurrence and the potential impact on people, property, and economy. Special purpose districts based this ranking on probability of occurrence and the potential impact on their constituency, their vital facilities and the facilities' functionality after an event. The methodology followed that used for the countywide risk ranking presented in Volume 1. The objectives of this exercise were to familiarize the partnership with how to use the risk assessment 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 as a result of this exercise were considered to be priorities for identifying mitigation actions, although jurisdictions also identified actions to mitigate "low" ranked hazards, as appropriate.

### 1.4.2 Information Reviewed to Develop Action Plan

The tool kits and mitigation action worksheets were used during the workshops and in follow-up work conducted by the planning partners. A large portion of the workshop focused on how the tool kit and mitigation action worksheets should be used to develop the mitigation action plan. Planning partners were specifically asked to review the following to assist in the identification of actions:

- **The Jurisdiction's 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.
- **The Jurisdiction's National Flood Insurance Program Compliance Table**—Reviewed to identify opportunities to increase floodplain management capabilities.
- **The Jurisdiction's Review of Its Adaptive Capacity for Climate Change**—Reviewed to identify ways to leverage or continue to improve existing capacities and to improve understanding of other capacities.
- **The Jurisdiction's Identified Opportunities for Future Integration**—Reviewed to identify specific integration actions to be included in the mitigation strategy.
- **Jurisdiction-Specific Vulnerabilities**—Reviewed to identify actions that will help reduce known vulnerabilities.
- **The 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.

### 1.4.3 Prioritization, Benefit and Cost Review

44 CFR requires actions identified in the action plan to be prioritized (Sections 201.6(c)(3)(iii)) part of the prioritization of the action plan to emphasize a benefit/cost analysis of the proposed actions. Because some actions may not be implemented for many years, benefit/cost analysis was qualitative and not of the detail required by FEMA for project grant eligibility under the Hazard Mitigation Assistance grant program. A review of the apparent benefits versus the apparent cost of each project was performed. The planning team and steering committee developed a methodology for prioritizing the action plans that meets the needs of the partnership

and the requirements of 44 CFR. All identified actions were prioritized based on a numerical system in the mitigation action worksheets that examined 15 different criteria. The criteria include life safety, property protection, cost-effectiveness, feasibility, legal authority, funding availability, grant eligibility, incorporation of nature-based solutions, examining climate change, benefitting socially vulnerable communities, administrative capability, multi-hazard risk reduction, timeline, policy and objective support, and community support.

- **High Priority**—An action that receives 31 or more points.
- **Medium Priority**—An action that receives 15 to 30 points
- **Low Priority**—An action that receives 0 to 14 points.

#### 1.4.4 Classification of Mitigation Actions

All planning partners reviewed their recommended actions to classify each action based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this categorization are as follows:

- **Prevention**—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.
- **Property Protection**—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.
- **Public Education and Awareness**—Actions to inform citizens 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, and wetland restoration and preservation.
- **Emergency Services**—Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
- **Structural Projects**—Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.
- **Climate Resilient**—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 effect.
- **Community Capacity Building**—Actions that increase or enhance local capabilities to adjust to potential damage, to take advantage of opportunities, or to respond to consequences. Includes staff training, memorandums of understanding, development of plans and studies, and monitoring programs.

These categories include categories identified in the Community Rating System (CRS) 2017 *CRS Coordinators Manual* (OMB No. 1660-0022, Figure 510-4). The CRS categories expand on the four categories in FEMA’s 2013 *Local Mitigation Handbook*. They provide a more comprehensive range of options, thus increasing integration opportunities.

## 1.5 COMPATIBILITY WITH PREVIOUS APPROVED PLANS

There were 5 municipal planning partners, 9 special-purpose district partners, and the unincorporated County who participated in this plan that were previously covered under the 2019 Chelan County Multi-Jurisdictional

Natural Hazard Mitigation Plan Update, which expired December 9, 2024. Table 1-1 lists all the partners and the role this multi-jurisdictional plan will play in achieving compliance.

## 1.6 FINAL COVERAGE UNDER THE PLAN

Eleven planning partners and the County completed their annexes. Table 1-1 lists the jurisdictions that submitted letters of intent and their ultimate status in this plan. The fire districts that did not complete their annex were affected by wildfire or other barriers that made them unable to complete the annex. They were provided direction on how to finish their planning process to be eligible under this plan.

**Table 1-1. Planning Partners**

Jurisdiction	Covered by the 2018 Plan	Participated in 2024 Plan Update Process?	Completed Annex Template?	Covered by this Hazard Mitigation Plan?
Chelan County	Yes	Yes	Yes	Yes
City of Wenatchee	Yes	Yes	Yes	Yes
City of Leavenworth	Yes	Yes	Yes	Yes
City of Chelan	Yes	Yes	Yes	Yes
City of Entiat	Yes	Yes	Yes	Yes
City of Cashmere	Yes	Yes	Yes	Yes
Fire District #1 (WVFD)	Yes	Yes	Yes	Yes
Fire District #3	Yes	Yes	Yes	Yes
Fire District #5	Yes	Yes	No	No
Fire District #6	Yes	Yes	No	No
Fire District #7	No	Yes	Yes	Yes
Fire District #8	Yes	Yes	No	No
Fire District #9 (LWFR)	Yes	Yes	Yes	Yes
Chelan County Flood Control Zone District	Yes	Yes	Yes	Yes
Cascadia Conservation District	Yes	Yes	Yes	Yes

# Part 1. Annexes

## 2. UNINCORPORATED CHELAN COUNTY

### 2.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Mike Kaputa, Director-Chelan County Natural Resources  
 411 Washington Street, Suite 201  
 Wenatchee, WA 98801  
 (509) 670-6935  
 Mike.Kaputa@co.chelan.wa.us

**Alternate Point of Contact**

Sgt. Jason Reinfeld, Sergeant-Emergency Management  
 401 Washington Street, Level 1  
 Wenatchee, WA 98801  
 509-630-7506  
 Jason.Reinfeld@co.chelan.wa.us

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 2-1.

**Table 2-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Stan Smoke	Emergency Management Specialist, Chelan County Emergency Management
Jason Detamore	Environmental Manager, Chelan County Public Works
Elle Robinson	Senior Natural Resource Specialist, Chelan County Natural Resources
Deanna Walter	Director, Chelan County Community Development

### 2.2 JURISDICTION PROFILE

#### 2.2.1 Location and Features

Chelan County is located on the eastern slopes of the Cascade Mountain range in central Washington. The County embraces the drainages of the Wenatchee River, the Entiat River, Lake Chelan, and the Chelan River. According to the U.S. Census Bureau, the county has a total area of 2,994 square miles, of which 2,921 square miles is land and 73 square miles (2.5%) is water. It is the third-largest county in Washington by area. Chelan County receives 9 inches of rainfall, on average per year and averages 21 inches of snow. On average, there are 199 days of sunshine each year, and some type of precipitation (rain, snow, sleet) 29 days per year. The annual average high temperature is 59.8 degrees with an average summer high of 85 degrees. The annual average low temperature is 41.3 degrees with a winter average low of 24 degrees.

#### 2.2.2 History

Chelan County was incorporated on March 13, 1899.

The initial inhabitants of the region were Native Americans from the Wenatchi tribe residing along the Wenatchee River, as it flows from the Cascade Mountains to the Columbia River. The culture and economy of the tribe centered on fishing, hunting and gathering. Trappers and Chinese gold prospectors were among the

first non-natives who arrived in the area during the early 1800s. White settlers followed, beginning in the 1870s. After 1888, the current Chelan Valley was a designated part of Okanogan County, and the current Wenatchee Valley was part of Kittitas County. In 1899, the State Legislature created Chelan County taking portions from both of the other two other counties. Wenatchee became the county seat. The county name was derived from the Native American word “chelan” which means “deep water,” and refers to the longest and deepest alpine lake in the country, Lake Chelan.

The federal Reclamation Act of 1902 (Newlands Act) provided for the organization and funding of irrigation districts that had the authority of government in acquiring land and issuing bonds. Irrigation along with railroads spurred agricultural development in Chelan County, particularly fruit orchards. Agriculture tends to be the economic force for the area and it specifically revolves around various tree fruit that includes apples, cherries, pears and peaches. While agriculture is a dominant industry in Chelan County with 23.1 percent of total covered employment in 2016, it is followed by private health services with 13.8 percent of total covered employment. Wineries are playing an increasing role in both agriculture and in tourism. Agricultural employment directly links to nonfarm employment through nondurable goods manufacturing (i.e., food processing), wholesale trade (i.e., fresh fruit packinghouses) and transportation.

### **2.2.3 Governance**

Chelan County is governed by a three-member Board of County Commissioners which liaison directly with other elected officials and the appointed county manager. Other key elected county officials include the treasurer, auditor and assessor. There are many departments which exist to make the county function. For the purpose of this plan, key departments include: Public Works, Community Development, Natural Resources, Auditor’s Office, Flood Control Zone District, and the Sheriff’s Office. County Emergency Management exists as a division within the Sheriff’s Office. The Board of County Commissioners assume responsibility for the adoption of this plan; The county’s Emergency Management Division will oversee the plan’s implementation.

## **2.3 CURRENT TRENDS**

### **2.3.1 Population**

According to the 2020 census, Chelan County had a population of 79,074. This is a 3.5 percent increase from a population of 76,338 recorded during the 2016 census. (Source: US Census Bureau).

According to the Census data, as well as the WA Office of Financial Management, there are two distinct demographic groups that have steadily increased in Chelan County.

#### **Vulnerable Population**

Since 2010 the Hispanic population has increased by 2.3%. The largest shift in demographics is seen in the 65 and older population that has increased by 2.6% since 2010.

### **2.3.2 Development**

Chelan County had a population of 81,500 in 2023 according to data from the State’s Office of Financial Management. Of this number, 33,875 residents live in the unincorporated areas of the county and 47,625 in the cities. According to data from the state, Chelan County’s population is expected to grow to 89,022 by 2035, an

increase of 9 %. There is a focus on affordable housing. Future growth in the County will be managed as identified in the County’s 2017 Comprehensive Plan. County actions, such as those relating to land use, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with this plan.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 2-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 2-2. Recent and Expected Development Trends**

Criterion	Response					
Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan? <i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	No					
Is your jurisdiction expected to annex any areas during the performance period of this plan? <i>If yes, describe land areas and dominant uses.</i>	No					
<i>If yes, who currently has permitting authority over these areas?</i>						
Are any areas targeted for development or major redevelopment in the next five years? <i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>	No					
How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?		2019	2020	2021	2022	2023
	Single Family	259	308	355	224	201
	Multi-Family	4	4	5	0	0
	Other	44	30	43	26	32
	Total	307	342	403	250	233
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	<ul style="list-style-type: none"> <li>● Special Flood Hazard Areas: 49</li> <li>● Landslide: 2062</li> <li>● High Liquefaction Areas: Unknown</li> <li>● Wildfire Risk Areas: Unknown</li> </ul>					
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.	Unknown.					

## 2.4 CAPABILITY ASSESSMENT

### 2.4.1 Current Capabilities

Chelan County has performed an inventory and analysis of existing capabilities, plans, programs and policies that enhance its ability to implement mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning and regulatory capabilities is presented in Table 2-3.
- Development and permitting capabilities are presented in Table 2-4.

- An assessment of fiscal capabilities is presented in Table 2-5.
- An assessment of administrative and technical capabilities is presented in Table 2-6.
- An assessment of education and outreach capabilities is presented in Table 2-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 2-8.
- Classifications under various community mitigation programs are presented in Table 2-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 2-10.

**Table 2-3. Planning and Regulatory Capability**

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County Code Title 3			
<b>Zoning Code</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County Code Title 11			
<b>Subdivisions</b>	Yes	No	Yes	Yes
<i>Comment:</i>	Comprehensive Plan (2017-2037)			
<b>Stormwater Management</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Department of Ecology Storm Water Permit Regulations, Chelan County Code Title 13			
<b>Post-Disaster Recovery</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	County CEMP			
<b>Real Estate Disclosure</b>	No	No	No	No
<i>Comment:</i>				
<b>Growth Management</b>	Yes	No	Yes	Yes
<i>Comment:</i>	Chelan County Comprehensive Plan (2017-2037)			
<b>Site Plan Review</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	City/County Codes			
<b>Environmental Protection</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	WA State Dept of Ecology, Federal EPA, Chelan County Code Title 11			
<b>Flood Damage Prevention</b>	Yes	Yes	No	Yes
<i>Comment:</i>	Chelan County Flood Control Zone District Plan (2018); Chelan County Code Title 3			
<b>Emergency Management</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County CEMP			
<b>Climate Change</b>	No	Yes	No	Yes
<i>Comment:</i>	WA State Dept of Ecology			
<b>Other: Comprehensive Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	2017-2037 Chelan County Comprehensive Plan			
<b>Planning Documents</b>				
<b>Comprehensive Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	2017-2037 Chelan County Comprehensive Plan			
<b>Capital Improvement Plan</b>	Yes	Yes	Yes	Yes
<i>How often is the plan updated?</i>	Annually			
<i>Comment:</i>				



<b>Floodplain or Watershed Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Plans for the Wenatchee, Entiat, Stemilt/Squilchuck, and Lake Chelan watersheds.</i>			
<b>Stormwater Plan</b>	Yes	No	No	Yes
<i>Comment:</i>	<i>Comprehensive Stormwater Plan, July 2012</i>			
<b>Urban Water Management Plan</b>	No	No	No	No
<i>Comment:</i>	<i>Not available</i>			
<b>Habitat Conservation Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Economic Development Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>				
<b>Shoreline Management Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Chelan County Shoreline Master Program (2021)</i>			
<b>Community Wildfire Protection Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>(inclusive in Natural Hazard Mitigation Plan (2019))</i>			
<b>Forest Management Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Climate Action Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Comprehensive Emergency Management Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	<i>Chelan County CEMP with annual revisions</i>			
<b>Threat and Hazard Identification and Risk Assessment</b>	Yes	No	Yes	Yes
<i>Comment:</i>	<i>December 2023 Hazard Identification and Vulnerability Assessment (HIVA)</i>			
<b>Post-Disaster Recovery Plan</b>	Yes	No	No	Yes
<i>Comment:</i>	<i>County CEMP (ESF 14 – long term recovery)</i>			
<b>Continuity of Operations Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	<i>Chelan County Continuity of Government and Operations Plan Revised Annually</i>			
<b>Public Health Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Chelan-Douglas Health District All-Hazard Plan (2017)</i>			

**Table 2-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Yes
• If no, who does? If yes, which department?	Chelan County Community Development Chelan County Public Works
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory?	No

**Table 2-5. Fiscal Capability**

<b>Financial Resource</b>	<b>Accessible or Eligible to Use?</b>
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	Yes
Incur Debt through Special Tax Bonds	Yes
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	Yes
Other	No

**Table 2-6. Administrative and Technical Capability**

<b>Staff/Personnel Resource</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
Planners or engineers with knowledge of land development and land management practices	Yes	Chelan County Public Works Chelan County Natural Resources Chelan County Community Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Chelan County Public Works Chelan County Natural Resources Chelan County Community Development
Planners or engineers with an understanding of natural hazards	Yes	Chelan County Public Works Chelan County Natural Resources Chelan County Community Development
Staff with training in benefit/cost analysis	No	On-call consultants
Surveyors	Yes	Chelan County Public Works
Personnel skilled or trained in GIS applications	Yes	Numerous county departments
Scientist familiar with natural hazards in local area	Yes	Chelan County Public Works Chelan County Natural Resources
Emergency Manager	Yes	Chelan County Sheriff’s Office – Emergency Management
Grant writers	Yes	Numerous county departments
Other		

**Table 2-7. Education and Outreach Capability**

Criterion	Response
<b>Do you have a Public Information Officer or Communications Office?</b>	Yes
<b>Do you have personnel skilled or trained in website development?</b>	Yes
<b>Do you have hazard mitigation information available on your website?</b>	Yes
<ul style="list-style-type: none"> <li data-bbox="142 401 954 436">• <b>If yes, please briefly describe.</b></li> </ul>	Hazard Mitigation Plan, flood information
<b>Do you utilize social media for hazard mitigation education and outreach?</b>	Yes
<ul style="list-style-type: none"> <li data-bbox="142 506 954 562">• <b>If yes, please briefly describe.</b></li> </ul>	Various county departments utilize social media for PE&O
<b>Do you have any citizen boards or commissions that address issues related to hazard mitigation?</b>	Yes
<ul style="list-style-type: none"> <li data-bbox="142 653 954 688">• <b>If yes, please briefly describe.</b></li> </ul>	Steering committees, CWPP, CFHMP, HMP
<b>Do you have any other programs already in place that could be used to communicate hazard-related information?</b>	Yes
<ul style="list-style-type: none"> <li data-bbox="142 758 954 856">• <b>If yes, please briefly describe.</b></li> </ul>	Department’s attend community meetings dependent upon topic, social media, press releases, etc.
<b>Do you have any established warning systems for hazard events?</b>	Yes
<ul style="list-style-type: none"> <li data-bbox="142 905 954 940">• <b>If yes, please briefly describe.</b></li> </ul>	Everbridge, NWS EAS, door-to-door

**Table 2-8. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	Chelan County Community Development
Who is your floodplain administrator? (department/position)	Chelan County Community Development - Director Appointed
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	June 2020
Does your jurisdiction have the latest effective Flood Insurance Rate Maps adopted?	Yes
If yes, what is the effective date?	9/30/2004
Does your floodplain management program meet or exceed minimum requirements?	Meet
• If exceeds, in what ways? 3 feet above base flood elevation freeboard requirement	
When was the most recent Community Assistance Visit or Community Assistance Contact?	September 2019
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	Yes
• If so, please state what they are: Elevation certificates missing or completed incorrectly	
Are any RiskMAP projects currently underway in your jurisdiction?	Yes
• If so, state what they are: FEMA is currently updating the regulatory floodplains in Chelan County.	
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	No
• If no, please state why. Current maps are outdated.	
Does your floodplain management staff need any assistance or training to support its floodplain management program?	No
• If so, what type of assistance/training is needed?	
Does your jurisdiction participate in the Community Rating System (CRS)?	No
• If yes, is your jurisdiction interested in improving CRS Classification?	
• Is your jurisdiction interested in joining the CRS program?	Yes
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup>	317
• What is the insurance in force?	\$90,042,000
• What is the premium in force?	\$330,160
How many total loss claims have been filed in your jurisdiction? <sup>a</sup>	110
• What were the total payments for losses?	\$1,037,815
<b>Description of how the County implements the substantial improvement/substantial damage provisions of their floodplain management ordinance</b> <i>Describe:</i> After an event, the Floodplain Administrator will assemble a team of inspectors to perform a rapid assessment of structures within the floodplain of the affected areas to assess which structures may have been damaged. If the event was flooding, this team would have also conducted a windshield survey during the flood event to document structures affected by flooding. All damaged structures will be required to obtain a flood permit for the proposed repairs and provide a contractor’s cost estimate. The cost will be compared to the market value of the structure prior to damage, starting with the assessed improvement value, if available, or an appraised value secured by the landowner. If the cost to repair the structure is greater than 50% of the structure value, the structure will need to be brought into compliance with current floodplain regulations.	

a. According to FEMA statistics as of 07/24/2024

**Table 2-9. Community Classifications**

	Participating?	Classification	Date Classified
<b>Community Rating System</b>	No	N/A	N/A
<b>Building Code Effectiveness Grading Schedule</b>	Yes	5	Unknown
<b>Public Protection</b>	Yes	Unknown	Unknown
<b>Storm Ready</b>	No	N/A	N/A
<b>Firewise</b>	Yes	--	--
<b>Alpine Acres, Leavenworth WA</b>	Yes	Participating	N/A
<b>Alpine Tracts, Cashmere WA</b>	Yes	Participating	N/A
<b>Bretz Road and Drive, Leavenworth WA</b>	Yes	Participating	N/A
<b>Broadview, Wenatchee, WA</b>	Yes	Participating	N/A
<b>Chiwawa Loop, Leavenworth, WA</b>	Yes	Participating	N/A
<b>Chiwawa River Pines, Leavenworth, WA</b>	Yes	Participating	N/A
<b>Chumstick Watershed, Leavenworth, WA</b>	Yes	Participating	N/A
<b>Fish Lake, Leavenworth, WA</b>	Yes	Participating	N/A
<b>North shore Lake Wenatchee, Leavenworth, WA</b>	Yes	Participating	N/A
<b>Ponderosa Community Club, Leavenworth, WA</b>	Yes	Participating	N/A
<b>River Road, Leavenworth, WA</b>	Yes	Participating	N/A
<b>Shugart Flats, Leavenworth, WA</b>	Yes	Participating	N/A
<b>Stellerwood, Leavenworth, WA</b>	Yes	Participating	N/A

**Table 2-10. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	Medium
<i>Comment:</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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	Medium
<i>Comment:</i>	
Participation in regional groups addressing climate risks	High
<i>Comment:</i>	The majority of county planning documents address climate risks. Partnership with Region 7 Healthcare Alliance.
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Medium
<i>Comment:</i>	
Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i>	
Identified strategies for adaptation to impacts	Low
<i>Comment:</i>	
Champions for climate action in local government departments	Low
<i>Comment:</i>	
Political support for implementing climate change adaptation strategies	Low
<i>Comment:</i>	
Financial resources devoted to climate change adaptation	Low
<i>Comment:</i>	
Local authority over sectors likely to be negative impacted	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
Local residents’ knowledge of and understanding of climate risk	Medium
<i>Comment:</i>	
Local residents’ support of adaptation efforts	Low
<i>Comment:</i>	
Local residents’ capacity to adapt to climate impacts	Medium
<i>Comment:</i>	
Local economy’s current capacity to adapt to climate impacts	Unsure
<i>Comment:</i>	
Local ecosystem’s capacity to adapt to climate impacts	Unsure
<i>Comment:</i>	

- 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.
- 

## 2.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

### Planning, Regulatory, Development, and Permitting Capabilities

The Chelan County Comprehensive Emergency Management Plan already addresses hazards and their impacts and should be updated to reflect new information about risk from this hazard mitigation plan.

### Administrative and Technical Capabilities

Based on the capability assessment, the County currently does not need to expand this capability.

### Fiscal Capabilities

Based on the capability assessment, the County currently does not need to expand this capability.

### Public Education and Awareness Capabilities

Chelan County will develop, or enhance, and implement public education and awareness campaign for the hazards addressed in this hazard mitigation plan.

### NFIP Capabilities

New county-wide DFIRMS will streamline permitting and increase accuracy of areas at highest risk of flooding.

## 2.5 INTEGRATION WITH OTHER PLANNING INITIATIVES

The information on hazards, risk, vulnerability and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### 2.5.1 Existing Integration

In the performance period since adoption of the previous hazard mitigation plan, Chelan County made progress on integrating hazard mitigation goals, objectives and actions into other planning initiatives. The following plans and programs currently integrate components of the hazard mitigation strategy:

- Comprehensive Emergency Management Plan - Should be updated to reflect new information about risk
- Chelan County Continuity of Government and Operations Plan – Should be updated to reflect new information about risk

- Comprehensive Plan (2017-2037) - Should be updated to reflect new information about risk
- Chelan County Flood Control Zone District Plan (2018)- Should be updated to reflect new information about risk.

### 2.5.2 Opportunities for Future Integration

As this hazard mitigation plan is implemented, Chelan County will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan in actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

- Disaster Debris Management Plan – Should be integrated into current solid waste plan with new information about risk
- Threat and Hazard Identification and Risk Assessment – Should replace current HIVA with new information about risk

## 2.6 RISK ASSESSMENT

### 2.6.1 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 hazard mitigation plan.

**Table 2-11. Past Natural Hazard Events**

Type of Event	Federal Disaster #	Incident Period Date	Damage Assessment
Severe Winter Storms, Snowstorms, Straight-Line Winds, Flooding	DR-4650	12/26/2021-1/15/2022	
Washington Twentyfive Mile Fire	FM-5414	8/17/2021-9/13/2021	
Washington Red Apple Fire	FM-5398	7/13/2021-7/20/2021	
Washington Apple Acres Fire	FM-5352	9/7/2020-9/15/2020	
Cougar Creek Fire	FM-5270	8/10/2018-8/27/2018	
Navarre Fire	NA	07/31/2018	No structures damaged; 165 acres
25 Mile Creek Fire	NA	07/29/2018	\$250,000; DESTROYED: 1 garage; power poles; guardrail; 22 acres
Cougar Creek Fire	FM-5270-WA	07/28/2018 (declaration 08/1/2018)	\$ in progress; 42,712 acres



Rocky Reach Fire	NA	07/23/2018	No structures damaged; 3,386 acres
Fields Point Fire	NA	07/20/2018	No structures damaged; 60 acres
Little Camas Creek Fire	NA	07/05/2018	No structures damaged; 317 acres
Eight Mile Lake Dam	NA	03/13/2018	No structures damaged
Monitor Fire	NA	11/01/2017	No structures damaged; 1,100 acres
Uno Peak Fire	NA	08/30/2017	\$25,000; DESTROYED: 1 cabin; 7,879 acres
Jack Creek Fire	NA	08/11/2017	No structures damaged; 4,606 acres
Spartan Fire	NA	06/26/2017	Power poles damaged; 1,800 acres
Spromberg Fire	FM-5182-WA	05/23/2017	\$ in progress; Cedar log decks destroyed; 42 acres
Horselake Fire	NA	09/04/2016	\$50,000; Historical Barn Lost / Unk acreage
Suncrest Fire	FM-5152-WA	08/27/2016	\$ in progress; \$2,000 damage estimated.; Cell Tower Damage / 496 acres
Antilon Lake Fire	NA	07/29/2016	1 vehicle destroyed; 540 acres
Cranmer Road Landslide	NA	05/06/2016	\$400,000; 2 residences affected
Ribbon Cliff Fire	NA	05/08/2016	No structures damaged; 25 acres
Whispering Ridge Landslide	NA	03/17/2016	\$400,000; 1 residence damaged
Severe Storms, Landslides	4249-DR-WA	01/15/2016	\$1,320,000; Yodelin Road Damage
Chelan Complex Fires—Chelan Butte Fire; Deer Mtn Fire; Antoine Crk Fire; First Crk Fire	4243-DR-WA	08/14/2015	\$23,513,366; DESTROYED: 30 Residences; 3 Commercial Businesses; 25 Other Structures Destroyed; 54,500 acres
Sleepy Hollow Fire	FM-5087-WA	06/28/2015	\$22,000,000+; DESTROYED: 29 Residences; 4 Commercial Businesses; 1 Outbuilding; 2,950 acres
Wolverine Fire	NA	07/03/2015	\$100,000; 62,167 acres 20
Chiwaukum Complex Fires	FM-5061-WA	07/15/2014	\$100,000; DESTROYED: 3 Cabins; 1 Outbuildings; 17,935 acres
Mills Canyon Fire	FM-5061-WA	07/08/2014	\$15,000; 3 Outbuildings 22,571 acres
Eagle Fire	FM-5048-WA	08/19/2013	\$2,273,317; No structures damaged; 14,076 acres
Milepost 10 Fire	FM-5042-WA	08/09/2013	\$1,200,000; 5,554 acres
Colockum Tarps	FM-5038-WA	07/27/2013	\$1,000,000+; DESTROYED: 3 residences; 1 commercial property; 1 outbuilding; 80,184 acres
North Shore Fire—Lake Wenatchee	NA	07/19/2013	\$1,200,000+; DESTROYED: 3 residences; DAMAGED: 1 residence; 6 acres
Ice Storm – Lake Wenatchee	NA (State Emergency Declaration Denied)	12/20/2012	\$500,000+; 60+ residences damaged; 2 fatalities in vehicle accidents; 4 severely injured in vehicle accidents
Wenatchee Complex Fires—Peavine Fire; Poison Cyn Fire; Canyons Fire; Twin Peaks Fire	FM-5012-WA	09/08/21012	\$20,000; DESTROYED: 1 outbuilding; 56,478 acres
Byrd Canyon Fire	NA	09/08/2012	No known structures damaged; 14,119 acres
Rainbow Bridge Fire	NA	07/29/2010	No structures damaged; 3,710 acres
Wenatchee River Complex—Nahahun Cyn Fire; Tripp Cyn Fire; Devils Gulch Fire	NA No FMAG declared	07/30/2010	\$100,000; DESTROYED: Building supplies; 2,065 acres
Union Valley Fire	FM-2823-WA	08/01/2009	\$640,027; No structures lost; 768 acres

<b>Severe Winter Storms—Entiat River, Mission Creek</b>	1817-DR-WA	01/06/2009	(Unknown Damage Assessment)
<b>Kahler Glen Avalanche</b>	NA	02/07/2008	\$240,000; DESTROYED: 1 residence
<b>Easy Street Fire</b>	FM-2711-WA	07/07/2007	\$60,000; DESTROYED: 3 outbuildings; 2,500+ acres
<b>Windstorm – Wenatchee</b>	NA	12/472006	\$3,292,842; DESTROYED: fire station; DAMAGED: Numerous homes, outbuildings, power poles/lines, trees
<b>Flooding – Leavenworth Area</b>	1671-DR-WA	11/02/2006	\$92,000;
<b>Flick Creek Fire</b>	FM-2674-WA	07/26/2006	\$80,510; Homes threatened – ; No structures lost; 7,883 acres
<b>Tinpan Fire</b>	NA	07/20/2006	No structures damaged; 9,247 acres
<b>Dirty Face Fire</b>	FM-2572-WA	07/31/2005	\$1,061,643; 73 residences threatened; 1,150 acres
<b>Fischer Fire</b>	FM-2543-WA	08/11/2004	\$3,033,966; DESTROYED: 1 residence / 1 other; 300 residences threatened; 16,513 acres
<b>Deep Harbor Fire—Aka: Pot Peak Complex Fires-</b>	FM-2537-WA	07/30/2004	\$47,179; DESTROYED: 3 cabins; 29,700 acres
<b>Deer Point Fire</b>	FSA-2449-WA	07/20/2002	\$2,573,214; DESTROYED: 5 minor structures; 43,375 acres
<b>Icicle Complex Fires</b>	FSA-2374-WA	08/14/2001	\$1,186,851; 7,696 acres
<b>Rex Creek Complex Fires</b>	FSA-2379-WA	08/13/2001	\$1,008,947; (No known structures damaged); 55,913 acres
<b>Union Valley Fire</b>	FSA-2368-WA	07/28/2001	\$1,121,445; DESTROYED: 3 residences; 4,700 acres
<b>Tyee Fire – COMPLEX—Tyee Fire; Hatchery Creek Fire: Round Mountain Fire</b>	FSA-2103-WA (includes Hatchery Creek Complex Fire)	07/24/1994	\$17,711,728 - total complex; DESTROYED: 37 Structures (residences / outbuildings); 135,000 acres
<b>Hatchery Creek - COMPLEX</b>	(see Tyee Complex Fire)	07/23/1994	(See Tyee Fire for Damage Totals); Additional 43,000 acres
<b>Castle Rock Fire</b>	(No Known FEMA #)	09/26/1992	\$5,000,000 (estimate); DESTROYED: 24 residences; 6 outbuildings; 3,500 acres
<b>Dinkleman Fire</b>	FSA-2070	09/06/1988	Unknown. Damage Assessment; DEATH: 1 person killed; DESTROYED: 1 residence; 50,000 acres
<b>Mount St. Helens Ash Fallout</b>	DR-623	05/18/1980	Unknown Damage Estimate
<b>Christmas Floods</b>	Unknown if Disaster Declaration Granted	12/26/1980	Unknown Damage Estimate; Roadway damage, bridge damage
<b>Lightning Burst Fires—Mitchell Creek Fire; Slide Peak Fire; Entiat River Fire</b>	FSA-2002	07/17/1970	Unknown Damage Estimate; 188,000 acres

## 2.6.2 Hazard Risk Ranking

Table 2-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 2-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	33	High
3	Earthquake	32	Medium
4	Drought	22	Medium
5	Flood	18	Medium
5	Landslide	18	Medium
7	Dam or Levee Failure	12	Low
8	Avalanche	6	Low

### 2.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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.

#### **Repetitive Loss Properties**

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 7
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 1

#### **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:

- None

## 2.7 STATUS OF PREVIOUS PLAN ACTIONS

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

**Table 2-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
CC-1—Develop Disaster Response Plans for all Hazards	Carried over to updated plan	CC-1
<i>Comment:</i> Chelan County Comprehensive Emergency Management Plan		
CC-2—Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to citizens, public agencies, private property owners, businesses, and schools.	Carried over to updated plan	CC-6
<i>Comment:</i> Chelan County continually provides information to the public through mailings, social media, press releases, website, public outreach events, and other such means.		

CC-3—Identify recurring utility outage areas and work with utility providers to remove hazards along those areas.	Carried over to updated plan	CC-7
<i>Comment:</i> The Public Utilities District manages utilities within Chelan County.		
CC-4—Strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs.	Carried over to updated plan	CC-2
<i>Comment:</i> Chelan County Emergency Management continues to work with all departments in Chelan County.		
CC-5—Continue to implement existing programs, policies and regulations as identified within the plan.	Removed; no longer feasible	
<i>Comment:</i> Not a mitigation action.		
CC-6—Use technical knowledge of natural ecosystems and events to link natural resource management and land use organizations to mitigation activities and technical assistance.	Removed; no longer feasible	
<i>Comment:</i> Action no longer required.		
CC-7—Investigate and develop back-up power sources for vulnerable populations.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-3.		
CC-8—Investigate the availability of federal, state, or local grant funding to support acquisition of mobile power generators to supply emergency power during emergency conditions.	Carried over to updated plan	CC-3
<i>Comment:</i> When funding is available, Chelan County investigates this opportunity.		
CC-9—Recommend revisions to building codes and construction techniques to address earthquake hazards, where appropriate.	Carried over to updated plan	CC-8
<i>Comment:</i> Chelan County Community Development Department will continue to monitor the need for building code revisions.		
CC-10—Prioritize seismic retrofit for critical facilities to meet the most current standards for new buildings to the maximum extent possible.	Carried over to updated plan	CC-9
<i>Comment:</i> This action item has not been addressed.		
CC-11—Mitigate the non-structural impacts of an earthquake on all city and county critical facilities.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-9.		
CC-12—Perform structural and nonstructural retrofitting of seismically vulnerable facilities and structures.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-9.		
CC-13—Perform public education and awareness to increase the public’s knowledge of earthquake hazards inside and outside the home.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		
CC-14—Improve earthquake hazard mapping data and technical analysis for Chelan County.	Removed; no longer feasible	
<i>Comment:</i> Included in Countywide actions, CW-7.		
CC-15—Encourage development and enforcement of severe storm-resistant building, siting, and construction codes, particularly snow load requirements.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-8.		
CC-16—Increase public awareness of severe storm preparation and readiness activities.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		

CC-17—Enhance strategies for debris management for severe storm events.	Carried over to updated plan	CC-10
<i>Comment:</i> Chelan County is currently working towards completing a debris management plan.		
CC-18—Map and publicize locations around the county that have the highest incidence of severe storms.	Removed; no longer feasible	
<i>Comment:</i> Included in Countywide actions, CW-7.		
CC-19—Enhance and develop shelter networks currently organized by Red Cross.	Carried over to updated plan	CC-4
<i>Comment:</i> Chelan County is currently working towards more sheltering capabilities through the partnerships with Red Cross and other organizations		
CC-20—Enhance notification and weather monitoring systems to notify public of imminent severe storm events.	Carried over to updated plan	CC-5
<i>Comment:</i> Chelan County continues to investigate ways to improve notification and weather monitoring.		
CC-21—Identify slope areas that threaten critical facilities due to lack of vegetation and erosion control. Prioritize and implement slope stabilization measures.	Carried over to updated plan	CC-11
<i>Comment:</i> This action is occurring and is ongoing.		
CC-22—Reduce risk by improving knowledge of landslide hazard areas and understanding of vulnerability and risk to life and property in hazard-prone areas.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		
CC-23—Encourage construction, subdivision, and location design that can be applied to steep slopes and their hazard areas to reduce the potential adverse impacts to development.	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-8.		
CC-24—Develop public information to emphasize economic risk where a historical landslide area exists	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		
CC-25—Develop drought contingency plans at watershed level	Carried over to updated plan	CC-12
<i>Comment:</i> Chelan County Natural Resource Department will continue to monitor the need for this.		
CC-26—Develop drought public education programs	Carried over to updated plan	
<i>Comment:</i> Combined with new action CC-6.		
CC-27—Reduce risk of wildfire hazards and damage through implementation of wildfire prevention and mitigation activities	Carried over to updated plan	
<i>Comment:</i> Chelan County has and will continue to seek funding to address this action item.		
CC-28—Evaluate building and construction techniques for efficiency in preventing wildfire damage through use of ignition resistant materials	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-8.		
CC-29—Enhance outreach and education programs aimed at mitigating wildfire hazards and reducing or preventing the exposure of citizens, public agencies, private property owners, and businesses to natural hazards	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		

CC-30—Encourage development and dissemination of maps relating to the fire hazard to help educate and assist builders and homeowners in being engaged in wildfire mitigation activities, and to help guide emergency services during response	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		
CC-31—Collaborate with Washington Department of Transportation and others to identify avalanche-prone transportation routes and identify alternative transportation routes	Carried over to updated plan	CC-13
<i>Comment:</i> Chelan County and the Washington Department of Transportation continues to coordinate with each other.		
CC-32—Educate backcountry users on location and dangers of avalanche-prone areas	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		
CC-33—Perform public education and awareness to increase the public’s knowledge of dam failure inside and outside the home	Removed; no longer feasible	
<i>Comment:</i> Combined with new action CC-6.		
CC-34—Significant and high hazard dam operators shall develop and regularly update emergency action plans specific to dam failures affecting downstream properties and populations	Carried over to updated plan	CC-14
<i>Comment:</i> Chelan County receives updated plans from the public utility districts as well as irrigation districts.		
CC-35—All dam operators and/or owners in Chelan County shall maintain and regularly update an Operations and Maintenance Plan or Manual following Washington State Department of Ecology Dam Safety Office (DSO) guidelines.	Removed; no longer feasible	CC-15
<i>Comment:</i> Combined with new action CC-15.		
CC-36—All dam operators and/or owners in Chelan County should perform basic maintenance annually or as needed to keep dams operating in a safe condition (such as vegetation removal, filling voids and sinkholes, etc), and perform annual inspections and provide the inspection documentation to DSO.	Carried over to updated plan	
<i>Comment:</i> Combined with new action CC-15.		
CC-37—At the Eightmile Lake Dam, replace the existing dam and low-level outlet facilities with new facilities that will meet current Dam Safety Guidelines.	Carried over to updated plan	CC-16
<i>Comment:</i> Project proposed for upcoming grant application.		
CC-30—At the Colchuck Lake, Klonauqua Lake, and Square Lake Dams, evaluate, analyze, inspect, and or perform the following to determine necessary repairs or improvements. Construct necessary repairs or improvements. 1. All concrete and masonry structures for the impoundments. 2. The spillway low-level outlet and conduit. 3. The spillway adequacy based on the revised downstream hazard determination. 4. A stability analysis to ensure stability under normal operating conditions and seismic design.	Carried over to updated plan	CC-17
<i>Comment:</i> Project proposed for upcoming grant application.		

<p><b>CC-31—At the Meadow Lake Dam, conduct an elevation survey and provide to DSO to facilitate an update of the hydrologic-hydraulic analysis and downstream hazard assessment and construct overtopping protection and erosion barrier at the emergency spillway.</b></p>	<p>Carried over to updated plan</p>	<p>CC-18</p>
<p><b><i>Comment:</i> Improvements still required.</b></p>		

## 2.8 HAZARD MITIGATION ACTION PLAN

Table 2-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 2-15 identifies the priority for each action. Table 2-16 summarizes the mitigation actions by hazard of concern and mitigation type. The complete mitigation sheets are on file with the community.

**Table 2-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<p><b>Action CC-1</b> — Develop and maintain emergency response and recovery plans, in cooperation with Chelan County jurisdictions, emergency service agencies, disciplines and organizations that describe the responsibilities and actions that protect people and property during and immediately after a hazard event. Plans include warning systems, emergency response services, and protection of essential facilities</p> <p><b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
Not applicable	1, 2, 8	1, 2, 3, 4	Chelan County Sheriff/EMS		Low	Staff Time	Short-Term
<p><b>Action CC-2</b>— Strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs.</p> <p><b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
Not applicable	1, 2, 8, 9	1, 2, 3, 4, 5, 6	Chelan County Sheriff/EMS	Chelan County Departments, Public Safety Agency, Community Organizations	Low	Staff Time	Short-Term
<p><b>Action CC-3</b>— Acquire back up power systems, such as stationary and mobile power generators, battery storage systems, or solar panels, to supply emergency power during power outages to critical facilities and vulnerable populations.</p> <p><b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
Not applicable	1, 2, 8, 9	1, 2, 3, 4, 5, 6	Chelan County Sheriff/EMS	Chelan County Department, Public Safety Agency, Community Organizations	Low	Staff Time, HMGP, BRIC	Short-Term
<p><b>Action CC-4</b>— Enhance and develop shelter networks currently organized by Red Cross or other organizations.</p> <p><b>Hazards Mitigated:</b> Dam or Levee Failure, Earthquake, Flood, Severe Weather, Wildfire</p>							



New and Existing	8	1, 5, 6	Chelan County Sheriff/EMS	Other COAD (Community Organization Active in Disaster)			Short-Term
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**Action CC-5**— Enhance notification and weather monitoring systems to notify public of imminent severe storm events.

**Hazards Mitigated:** Flood, Severe Weather

Not applicable	1, 2, 6, 7, 8, 11	1, 2, 4, 5	Chelan County Flood Control Zone District	Chelan County Public Works	Very High	Staff Time, Private Investment	Long-Term
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**Action CC-6**— Develop, enhance, and implement public education and awareness campaigns to increase the whole community’s knowledge of natural hazard risk within their community, how to reduce or prevent damage to people and property, and how to prepare for natural disasters.

**Hazards Mitigated:** Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire

Not applicable	6	1, 3, 4, 5, 6	Chelan County Sheriff/EMS	Chelan County Departments, Public Safety Agencies, Community Organizations	Low	Staff Time	Short-Term
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**Action CC-7**— Identify reoccurring utility outage areas and work with utility providers to remove hazards along those areas.

**Hazards Mitigated:** Earthquake, Flood, Landslide, Severe Weather, Wildfire

New and Existing	6	1, 2, 3, 6	Chelan County Public Utilities District	Chelan County Public Works, Natural Resources, Flood Control Zone District, CCD, Fire Districts, all cities	High	BRIC, HMGP, PDM, HMGP Post-Fire	Long-Term
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**Action CC-8**— Evaluate building codes, construction techniques, and land use regulations to identify opportunities to increase the resiliency of the built environment. Encourage construction, subdivision, and location design that can reduce the potential adverse impacts to development from natural hazards.

**Hazards Mitigated:** Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire

New and Existing	5, 6, 10	1, 2	Chelan County Community Department	Chelan County Natural Resource Department	High	BRIC, HMGP, HMGP Post-Fire, Staff Time	Short-Term
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**Action CC-9**— Conduct structural analysis of critical facilities to identify seismic vulnerabilities. Perform structural and nonstructural retrofitting of vulnerable facilities and structures, prioritize critical facilities.

**Hazards Mitigated:** Earthquake

Existing	2, 4, 6, 7, 10	1, 2	Community Development	Chelan County Public Works, Chelan County Natural Resources	Very High	BRIC, HMGP, PDM, Staff Time	Long-Term
<p><b>Action CC-10</b>— Enhance strategies for debris management from disaster events.</p> <p><b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
Not applicable	2, 8	2, 6	Chelan County Emergency Management	Chelan County Public Works, Flood Control Zone District, Natural Resources	Low	Staff Time	Short-Term
<p><b>Action CC-11</b>— Identify slope areas that threaten critical facilities due to lack of vegetation and erosion control. Prioritize and implement slope stabilization measures.</p> <p><b>Hazards Mitigated:</b> Landslides</p>							
Not applicable	4, 7	1, 2, 3, 5	Public Works	Chelan County Natural Resources, Chelan County Flood Control Zone District, Chelan County Community Development, Cascadia Conservation District	Very High	BRIC, HMGP, PDM, HMGP Post-Fire, Staff Time, State Funding	Long-Term
<p><b>Action CC-12</b>— Develop drought contingency plans at watershed level.</p> <p><b>Hazards Mitigated:</b> Drought</p>							
New and Existing	4, 6	2, 3, 6	Chelan County Natural Resources Department	Department of Ecology, Irrigation Districts	High	BRIC, HMGP, Staff Time	Short-Term
<p><b>Action CC-13</b>— Collaborate with Washington Department of transportation and others to identify avalanche-prone transportation routes and identify alternative transportation routes.</p> <p><b>Hazards Mitigated:</b> Avalanche</p>							
New and Existing	1, 2, 6, 7, 8, 9, 11	1, 2, 3, 4, 5	Chelan County Public Works, WSDOT	Washington Department of Natural Resources, U.S. Geological Survey	Moderate	BRIC, HMGP, Staff Time	Long-Term

**Action CC-14**— Significant and high hazard dam operators shall develop and regularly update emergency action plans specific to dam failures affecting downstream properties and populations.

**Hazards Mitigated:** Dam or Levee Failure

New and Existing	2, 4, 6	1	Chelan County Sheriff/EMS	Chelan County Natural Resource Department, Flood Control Zone District	High	BRIC, FMA	Long-Term
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**Action CC-15**— All dam operators and/or owners in Chelan County shall maintain and regularly update an Operations and Maintenance Plan or Manual following Washington State Department of Ecology Dam Safety Office (DSO) guidelines. Dam operator should implement plans and perform maintenance as needed to keep dams in safe operating condition.

**Hazards Mitigated:** Dam or Levee Failure

Existing	2, 4, 6	1	Chelan County Natural Resource Department	Chelan County Flood Control Zone District		BRIC, HMGP, FMA	
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**Action CC-16**— At the Eightmile Lake Dam, replace the existing dam and low-level outlet facilities with new facilities that will meet current Dam Safety Guidelines.

**Hazards Mitigated:** Dam or Levee Failure, Drought, Earthquake, Flood, Severe Weather, Wildfire

Existing	4, 6	1, 2, 3	Icicle/Peshastin Irrigation District	Department of Ecology, CCNRD	Very High	HHPD	Short-Term
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**Action CC-17**— At the Colchuck Lake, Klonauqua Lake, and Square Lake Dams, evaluate analyze, inspect, and or perform the following to determine necessary repairs or improvements. Construct necessary repairs of improvements to all concrete masonry structures for the impoundments; the spillway low-level outlet and conduit; the spillway adequacy based on the revised downstream hazard determination; a stability analysis to ensure stability under normal operation conditions and seismic design.

**Hazards Mitigated:** Dam or Levee Failure, Drought, Earthquake, Flood, Severe Weather, Wildfire

Existing	6	1, 2, 3	Icicle/ Peshastin Irrigation District	Department of Ecology, CCNRD	Very High	HHPD	Short-Term
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**Action CC-18**— At the Meadow Lake Dam, conduct analysis and construct repairs as required by the Dam Safety Office.

**Hazards Mitigated:** Dam or Levee Failure, Drought, Earthquake, Flood, Severe Weather, Wildfire

Existing	4, 6	1, 2, 3	Galler Ditch Company	Department of Ecology, CCNRD	Very High	General funds	Short-Term
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**Table 2-15. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
CC-1	3	3	3	3	3	3	1	0	0	3	3	3	3	3	3	37	High
CC-2	3	3	3	3	3	3	1	0	0	3	3	3	3	3	3	37	High
CC-3	3	3	3	3	3	0	3	0	0	3	3	3	0	3	3	33	High
CC-4	3	0	1	1	1	0	0	0	1	3	0	3	0	3	3	19	Medium
CC-5	3	1	3	3	3	1	0	0	1	3	3	3	1	3	3	31	High
CC-6	3	3	3	3	3	3	1	0	0	3	3	3	3	3	3	37	High
CC-7	3	1	3	3	3	1	3	1	0	1	3	3	1	3	3	32	High
CC-8	3	3	3	3	3	1	3	3	3	3	3	3	1	3	1	39	High
CC-9	3	3	3	3	3	0	3	1	0	3	3	0	0	3	3	31	High
CC-10	0	0	3	3	3	3	0	0	0	0	3	3	3	3	3	27	Medium
CC-11	3	3	3	3	3	0	1	1	0	1	3	0	0	3	3	27	Medium
CC-12	3	0	3	3	3	0	3	3	3	3	3	0	1	3	3	34	High
CC-13	3	0	3	3	3	0	1	0	0	1	3	0	1	3	3	24	Medium
CC-14	3	3	1	3	0	0	3	1	0	3	1	3	0	3	1	25	Medium
CC-15	3	3	1	3	1	0	3	1	1	3	1	3	1	3	3	30	Medium
CC-16	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45	High
CC-17	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45	High
CC-18	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45	High

**Table 2-16. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazards		Medium-Ranked Hazard				Low-Ranked Hazard	
		Wildfire	Severe Weather	Earthquake	Drought	Landslide	Flood	Dam or Levee Failure	Avalanche
CC-1	Emergency Services, Community Capacity Building	●	●	●	●	●	●	●	●
CC-2	Emergency Services, Community Capacity Building	●	●	●	●	●	●	●	●
CC-3	Prevention, Climate Resilience	●	●	●		●	●	●	●
CC-4	Public Education and Awareness, Emergency Services, Community Capacity Building	●	●	●			●	●	
CC-5	Prevention, Public Education and Awareness, Emergency Services, Climate Resilience		●				●		
CC-6	Public Education and Awareness, Community Capacity Building	●	●	●		●	●	●	●
CC-7	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience	●	●	●		●	●		
CC-8	Prevention, Property Protection, Climate Resilience	●	●	●	●	●	●	●	●
CC-9	Prevention, Property Protection, Emergency Services, Structural Projects			●					
CC-10	Emergency Services	●	●	●		●	●	●	●
CC-11	Prevention, Property Protection, Natural Resource Protection, Structural Projects, Climate Resilience					●			
CC-12	Prevention, Public Education and Awareness, Natural Resource Protection, Climate Resilience				●				

<b>CC-13</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services								●
<b>CC-14</b>	Prevention, Property Protection, Natural Resource Protection, Structural Projects							●	
<b>CC-15</b>	Prevention, Property Protection, Natural Resource Protection, Structural Projects							●	
<b>CC-16</b>	Prevention, Property Protection, Structural Projects, Climate Resilience	●	●	●	●		●	●	
<b>CC-17</b>	Prevention, Property Protection, Structural Projects, Climate Resilience	●	●	●	●		●	●	
<b>CC-18</b>	Prevention, Property Protection, Structural Projects, Climate Resilience	●	●	●	●		●	●	

## 2.9 PUBLIC OUTREACH

Table 2-17 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 2-17. Local Public Hazard Mitigation Outreach**

Local Outreach Activity	Date	Number of People Involved
Chelan County continues to provide information to the public through mailings, social media, press releases, website, and other such means.	Continually	Unknown
Continual information sharing on EM and County social media platforms	Continually	unknown
Annual LEP emergency preparedness outreach program	Continually	Unknown
Annual public outreach events with public safety partnership agencies and community organizations	Continually	Unknown
Periodic cohort instruction events with The Community for Advancement of Family Education (CAFÉ')	Continually	Unknown
Periodic public fire evacuation presentations	Continually	Unknown

## 2.10 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **Unincorporated Chelan County Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **Unincorporated Chelan County Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.

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 CASHMERE

#### 3.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Steve Croci, Director of Operations  
 101 Woodring Street  
 Cashmere, WA 98815  
 509-782-3513  
 steve@cityofcashmere.org

**Alternate Point of Contact**

Jim Fletcher, Mayor  
 101 Woodring Street  
 Cashmere, WA 98815  
 509-782-3513  
 mayor@cityofcashmere.org

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 3-1.

**Table 3-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Paul Clarin	Foreman, Public Works
Dorien McElroy	Project Manager, Water and Wastewater Departments
Blake Larson	Fire Department Chief
Steve Croci	Director of Operations

#### 3.2 JURISDICTION PROFILE

##### 3.2.1 Location and Features

Located in the lower Wenatchee River valley on the east slope of the Cascade Mountains, Cashmere is surrounded by the river and steep hillsides. Elevation of the city is between 800 and 1,000 feet above sea level. Ridges along the north side of the valley rise to over 2,000 feet Mean Sea Level before ascending higher into the Entiat Mountains. South of Cashmere ridges rise again to over 2,000 feet above sea level and are connected with the Wenatchee Mountains and Mission Ridge. Geologic formation of the valley is typical of glacial and river actions working on consolidated sedimentary formations. Soils (Chumstick) are shallow with layers of unconsolidated river rock deposited either by glaciers or by flooding. Native vegetation of the valley is typical of dry climate zones, consisting mainly of grasses and shrubs. Pine forests are dominant vegetation in higher elevations, and on the north slopes of the ridges.

In Cashmere, the summers are hot, dry, and mostly clear and the winters are very cold and partly cloudy. Climate conditions vary from normal summer highs in the 80s to 90s (°F) and winter low temperatures are usually in the 20s and 30s (°F). Temperatures are rarely below 13°F or above 98°F.

##### 3.2.2 History

The Wenatchee River valley was originally home to the Wenatchee Indian tribe. In the 1850s about 400 members of the Simpesquensi band of the Wenatchee tribe maintained a winter village of Ntuatckam near the



present city of Cashmere. In 1855, the Walla Walla Treaty moved the Simpesquensis to the Yakima Reservation.

Cashmere's development began in 1888 when a mission was built under the direction of Father de Roughe to serve the areas remaining Indians and early settlers. Eventually a small community was established around "the old mission". The current location for the City of Cashmere was platted in 1892. Incorporation of the community as "Mission" occurred in 1904. In 1906, Judge James H. Chase convinced the town to change its name to Cashmere.

The first permanent settler was A. B. Brender. In 1881, he filed a claim in Brender Canyon. He raised vegetables for Blewett mines and later planted Cashmere's first pear trees. Significant orchard production did not occur until 1901 when the Peshastin ditch was completed, supplying irrigation water to the lower Wenatchee River valley. By 1903, the apple crop was large enough to ship fruit in rail car lots. In 1902 the Schmitt Lumber mill operated at the lower end of Brender Canyon and moved to the Sunset Highway location in 1918.

Cashmere benefited when the Great Northern Railroad constructed its line crossing Stevens Pass in 1892. This rail line provided employment and a means of transportation to get local produce to markets. The rail line also greatly influenced the town's pattern of development as fruit warehouses built adjacent to rail sidings and riverbanks were altered to construct rail embankments.

### **3.2.3 Governance**

Cashmere is classified as a non-charter code city with a Mayor-Council form of government pursuant to RCW 35A.12. The city council is the decision-making entity for the City. Council approves all expenditures, payroll, budget, ordinances, policies, etc., for the City. Five council members are elected for four-year terms. City Council meets every 2nd and 4th Monday of the month at 6:00 p.m. in the City Hall council chambers. Council meetings are open to the public. City Council assumes responsibility for the adoption of this plan; the Director of Operations will oversee its implementation.

## **3.3 CURRENT TRENDS**

### **3.3.1 Population**

As of April 1, 2024, the Washington State Office of Financial Management (OFM) estimated the City's population as 3,390. This estimate was based on the 2020 census data. This is a 4.4 percent increase from the population of 3,248 recorded during the 2020 census.

### **3.3.2 Development**

Anticipated development for Cashmere is considered low consisting of mostly residential development and some industrial. Residential housing will likely consist of more multi-family housing units and/or accessory dwelling units which are intended to address the need for more affordable housing. Some mixed-commercial and light industrial will occur on the Chelan County Port District land off Sunset Highway.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community.

Table 3-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 3-2. Recent and Expected Development Trends**

Criterion	Response					
<b>Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?</b>	Yes					
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	4 acres, 0 structures					
<b>Is your jurisdiction expected to annex any areas during the performance period of this plan?</b>	Yes					
<i>If yes, describe land areas and dominant uses.</i>	Annexed land will mostly be for low density housing.					
<i>If yes, who currently has permitting authority over these areas?</i>	Chelan County					
<b>Are any areas targeted for development or major redevelopment in the next five years?</b>	No					
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>	N/A					
<b>How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?</b>	2019	2020	2021	2022	2023	
	Single Family	6	5	5	1	10
	Multi-Family	0	0	2	0	1
	Other	0	0	0	0	0
	Total	6	5	7	1	11
<b>Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.</b>	<ul style="list-style-type: none"> <li>• Special Flood Hazard Areas: 0</li> <li>• Landslide: 0</li> <li>• High Liquefaction Areas: 0</li> <li>• Wildfire Risk Areas: 0</li> </ul>					

### 3.4 CAPABILITY ASSESSMENT

#### 3.4.1 Existing Capabilities

The City of Cashmere has performed an inventory and analysis of existing capabilities, plans, programs and policies that enhance its ability to implement mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning and regulatory capabilities is presented in Table 3-3.
- Development and permitting capabilities are presented in Table 3-4.
- An assessment of fiscal capabilities is presented in Table 3-5.
- An assessment of administrative and technical capabilities is presented in Table 3-6.
- An assessment of education and outreach capabilities is presented in Table 3-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 3-8.
- Classifications under various community mitigation programs are presented in Table 3-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 3-10.

**Table 3-3. Planning and Regulatory Capability**

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Cashmere Municipal Code (CMC) Title 15</i>			
<b>Zoning Code</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>CMC Title 17</i>			
<b>Subdivisions</b>	Yes	No	Yes	Yes
<i>Comment:</i>	<i>CMC Title 16</i>			
<b>Stormwater Management</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Department of Ecology Storm Water Permit Regulations</i>			
<b>Post-Disaster Recovery</b>	No	No	No	Yes
<i>Comment:</i>				
<b>Real Estate Disclosure</b>	No	No	No	No
<i>Comment:</i>				
<b>Growth Management</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Cashmere Comprehensive Plan (2019)</i>			
<b>Site Plan Review</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>City/County Codes</i>			
<b>Environmental Protection</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>CMC 18, WA State Department of Ecology and Federal agencies</i>			
<b>Flood Damage Prevention</b>	Yes	No	Yes	Yes
<i>Comment:</i>	<i>CMC Title 18</i>			
<b>Emergency Management</b>	No	No	No	No
<i>Comment:</i>				
<b>Climate Change</b>	No	No	No	No
<i>Comment:</i>				
<b>Other</b>				
<i>Comment:</i>				
<b>Planning Documents</b>				
<b>Comprehensive Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Cashmere Comprehensive Plan (2019 to be updated in 2026)</i>			
<b>Capital Improvement Plan</b>	Yes	Yes	Yes	Yes
<i>How often is the plan updated?</i>	<i>Annually</i>			
<i>Comment:</i>				
<b>Disaster Debris Management Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Floodplain or Watershed Plan</b>	Yes	Yes	No	Yes
<i>Comment:</i>	<i>Chelan County Flood Control Zone District Plan (2018); Plans for the Wenatchee and Mission Creek watersheds</i>			
<b>Stormwater Plan</b>	No	No	No	No
<i>Comment:</i>				

<b>Urban Water Management Plan</b>	No	No	No	No
<i>Comment:</i>	<i>Not Available</i>			
<b>Habitat Conservation Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Economic Development Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Shoreline Management Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Updated in 2021</i>			
<b>Community Wildfire Protection Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Forest Management Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Climate Action Plan</b>	No	No	No	No
<i>Comment:</i>	<i>Climate Change Resiliency Element to be developed as part of 2026 Comprehensive Plan update</i>			
<b>Comprehensive Emergency Management Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>2014 Chelan County CEMP Update to plan in progress (2019)</i>			
<b>Threat and Hazard Identification and Risk Assessment</b>	No	Yes	Yes	Yes
<i>Comment:</i>	<i>No local THIRA- December 2016 Hazard Identification and Vulnerability Assessment (HIVA)</i>			
<b>Post-Disaster Recovery Plan</b>	Yes	Yes	No	No
<i>Comment:</i>	<i>County CEMP (ESF-14- Long-Term Recovery)</i>			
<b>Continuity of Operations Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>				
<b>Public Health Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	<i>Chelan-Douglas Health District All-Hazard Plan (2017)</i>			
<b>Other</b>	No	No	No	No
<i>Comment:</i>				

**Table 3-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Yes
• If no, who does? If yes, which department?	Planning and Building
Does your jurisdiction have the ability to track permits by hazard area?	No
Does your jurisdiction have a buildable lands inventory?	Yes (will be updated in 2025)

**Table 3-5. Fiscal Capability**

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, general use fee
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
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	Yes
Other	No

**Table 3-6. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Contracted planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contracted engineers
Planners or engineers with an understanding of natural hazards	Yes	Contracted planner
Staff with training in benefit/cost analysis	Yes	Contracted planner
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	Contracted planner and engineers
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Fire Chief
Grant writers	Yes	General Staff

**Table 3-7. Education and Outreach Capability**

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
• If yes, briefly describe.	
Do you use social media for hazard mitigation education and outreach?	No
• If yes, briefly describe.	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
• If yes, briefly describe.	
Do you have any other programs already in place that could be used to communicate hazard-related information?	No

• If yes, briefly describe.	
Do you have any established warning systems for hazard events?	No
• If yes, briefly describe.	

**Table 3-8. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	Planning and Building
Who is your floodplain administrator? (department/position)	City Administrator
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2004
Does your jurisdiction have the latest effective Flood Insurance Rate Maps adopted?	Yes
<i>If no, state why. If yes, what is the effective date?</i>	9/30/2024
Does your floodplain management program meet or exceed minimum requirements?	Exceeds
• If exceeds, in what ways? 1-foot freeboard requirement	
When was the most recent Community Assistance Visit or Community Assistance Contact?	5/2024
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
• If so, state what they are.	
Are any RiskMAP projects currently underway in your jurisdiction?	Yes
• If so, state what they are.	FIRM county-wide FIRM map update
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
• If no, state why.	
Does your floodplain management staff need any assistance or training to support its floodplain management program?	Yes
• If so, what type of assistance/training is needed?	Any and all
Does your jurisdiction participate in the Community Rating System (CRS)?	No
• If yes, is your jurisdiction interested in improving its CRS Classification?	
• If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup>	22
• What is the insurance in force?	\$5,141,000
• What is the premium in force?	\$25,767
How many total loss claims have been filed in your jurisdiction? <sup>a</sup>	6
• What were the total payments for losses?	\$7,976

**Description of how the City implements the substantial improvement/substantial damage provisions of their floodplain management ordinance after an event.**

Describe: During a flood event, city staff or contracted support will perform a windshield survey to identify which structures are affected by flooding. After the event, all damaged structures within the floodplain will be required to obtain a flood permit for the proposed repairs and provide a contractor’s cost estimate. The cost will be compared to the market value of the structure prior to damage, starting with the assessed improvement value, if available, or an appraised value secured by the landowner. If the cost to repair the structure is greater than 50% of the structure value, the structure will need to be brought into compliance with current floodplain regulations.

a. According to FEMA statistics as of July 24, 2024

**Table 3-9. Community Classifications**

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Unknown	Unknown	Unknown
Public Protection – ISO (from fire department)	Unknown	Unknown	Unknown
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A

**Table 3-10. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts <i>Comment:</i>	Low
Jurisdiction-level monitoring of climate change impacts <i>Comment:</i>	Low
Technical resources to assess proposed strategies for feasibility and externalities <i>Comment:</i>	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory <i>Comment:</i>	Low
Capital planning and land use decisions informed by potential climate impacts <i>Comment:</i>	Low
Participation in regional groups addressing climate risks <i>Comment:</i>	Low
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes <i>Comment:</i>	Low
Identified strategies for greenhouse gas mitigation efforts <i>Comment:</i>	Low
Identified strategies for adaptation to impacts <i>Comment:</i>	Low
Champions for climate action in local government departments <i>Comment:</i>	Low

<b>Political support for implementing climate change adaptation strategies</b>	Low
<i>Comment:</i>	
<b>Financial resources devoted to climate change adaptation</b>	Low
<i>Comment:</i>	
<b>Local authority over sectors likely to be negative impacted</b>	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
<b>Local residents' knowledge of and understanding of climate risk</b>	Low
<i>Comment:</i>	
<b>Local residents' support of adaptation efforts</b>	Low
<i>Comment:</i>	
<b>Local residents' capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local economy's current capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local ecosystem's capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	

- 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.

### 3.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### **Planning, Regulatory, Development, and Permitting Capabilities**

The City does not have a planner on staff. Planning and building services are provided by contracted support and admin staff, when possible. If development activity increases, the City may need to increase their staff capacity and capabilities to support land development activities.

#### **Administrative and Technical Capabilities**

Based on review of the capability assessment, no expansion of this core capability is required.

#### **Fiscal Capabilities**

Based on review of the capability assessment, no expansion of this core capability is required.

#### **Public Education and Awareness Capabilities**

The City should consider building a stronger social media and online presence to reach more members of the community and reach them more quickly.



### **NFIP Capabilities**

Very little development or activity takes place within the City’s floodplain. However, the City contracts with a Certified Floodplain Manager to provide support when required.

## **3.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and 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. The progress reporting process described in Volume 1 will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### **3.5.1 Existing Integration**

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

- Comprehensive Plan
- Shoreline Management Plan
- Water System Plan
- Wastewater System Plan

### **3.5.2 Opportunities for Future Integration**

The capability assessment presented in this annex identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- 2026 Comp Plan update – This plan will provide information helpful to the land use and buildable lands inventory analysis.
- Climate Resiliency Element – The risk assessment will provide information to support the planning process.
- City utility system plan updates – The HMP can be more integrated into the utility system plans, especially for climate change impacts.

## **3.6 RISK ASSESSMENT**

### **3.6.1 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 hazard mitigation plan.

**Table 3-11. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Wildfire	N/A	N/A	8/21/2024	Issued Level 1 evacuation order near Cashmere.
Wildfire (Red Apple Fire)	FM-5398		7/14/2021	Prompted evacuations and threatened over 200 homes
Wildfire	N/A	N/A	6/2021	Over 25 acres burned, caused evacuations
Wildfire (Cougar Creek)	FM-5270	N/A	8/11/2018	Led to air quality issues, road closures, and evacuations in surrounding areas, including rural parts near Cashmere
Wildfire (Spromberg Fire)	FM-5182	N/A	5/23/2017	Poor air quality
Debris Flow	N/A	N/A	7/17/2012	\$100,000 in property damage
Flash Flood	N/A	N/A	12/28/1998	\$80,000 in property damage

### 3.6.2 Hazard Risk Ranking

Table 3-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 3-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	33	High
3	Earthquake	32	Medium
4	Drought	20	Medium
5	Flood	18	Medium
6	Dam or Levee Failure	6	Low
8	Landslide	0	None
8	Avalanche	0	None

### 3.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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.

#### 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:

- The wastewater treatment plan is protected from erosion by an uncertified levee. Portion of the treatment plant are below the base flood elevation. All structures are within Zone X (0.2% annual chance) floodplain.
- The water system has several vulnerabilities including lack of redundancy, aging pipes that leak, undersized distribution lines that do not provide sufficient fire flow, and pressure zones that lack storage. These vulnerabilities can be mitigated with new supply lines that are properly sized and new water storage.

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

**3.7 STATUS OF PREVIOUS PLAN ACTIONS**

Table 3-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 3-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<p><b>CA-1—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses or critical facilities.</b></p> <p><i>Comment: Ongoing.</i></p>	Carried over to updated plan	CA-1
<p><b>CA-2—Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the Comprehensive Plan.</b></p> <p><i>Comment: Ongoing.</i></p>	Carried over to updated plan	CA-2
<p><b>CA-3—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</b></p> <p><i>Comment: Ongoing.</i></p>	Carried over to updated plan	CA-3
<p><b>CA-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:</b></p> <ul style="list-style-type: none"> <li>• Enforce the flood damage prevention ordinance.</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/information on floodplain requirements and impacts.</li> </ul> <p><i>Comment: Ongoing.</i></p>	Carried over to updated plan	CA-4

<p><b>CA-5—Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for development of emergency water access or storage facilities at identified locations.</b></p>	<p>Carried over to updated plan</p>	<p>CA-5</p>
<p><i>Comment:</i> Made improves to groundwater well # 10. Applying for drought relief funds from WA Dept. of Ecology for improvements to well #4.</p>		
<p><b>CA-6—Develop a post-disaster recovery plan and a debris management plan.</b></p>	<p>Carried over to updated plan</p>	<p>CA-6</p>
<p><i>Comment:</i> No action.</p>		
<p><b>CA-7—Create a fuels reduction zone with landowners in collaboration with other fire service agencies along all roadways identified as evacuation routes.</b></p>	<p>Carried over to updated plan</p>	<p>CA-7</p>
<p><i>Comment:</i> No action.</p>		
<p><b>CA-8—Install back-up generators at all city facilities.</b></p>	<p>Carried over to updated plan</p>	<p>CA-8</p>
<p><i>Comment:</i> Received grant funding, awarded contract to install quick connects to critical facilities. All work should be completed in 2025.</p>		
<p><b>CA-9—Perform a seismic risk assessment on all city facilities, and retrofit those structures with risk.</b></p>	<p>Carried over to updated plan</p>	<p>CA-9</p>
<p><i>Comment:</i> No action.</p>		
<p><b>CA-10—Adopt WUIC codes.</b></p>	<p>Carried over to updated plan</p>	<p>CA-10</p>
<p><i>Comment:</i> No action.</p>		
<p><b>CA-11—Coordinate with Washington State Department of Transportation to designate alternate evacuation routes.</b></p>	<p>Carried over to updated plan</p>	<p>CA-11</p>
<p><i>Comment:</i> No action.</p>		
<p><b>CA-12—Improve early notification of emergencies and subsequent evacuation plans.</b></p>	<p>Carried over to updated plan</p>	<p>CA-12</p>
<p><i>Comment:</i> No action.</p>		
<p><b>CA-13—Coordinate with Chelan County Flood Control District on options for the maintenance and management of the levee system within the City.</b></p>	<p>Carried over to updated plan</p>	<p>CA-13</p>
<p><i>Comment:</i> Ongoing.</p>		

### 3.8 HAZARD MITIGATION ACTION PLAN

Table 3-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 3-15 identifies the priority for each action. Table 3-16 summarizes the mitigation actions by hazard of concern and mitigation type. Completed worksheets are on file with the City.

**Table 3-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<p><b>Action CA-1</b> — Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses. This may include a buy-out or raising of structures.</p> <p><b>Hazards Mitigated:</b> Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
New and Existing	6	1	Community Development	Emergency Management, Public Works	Very High	BRIC, HMGP, PDM, FMA	Short-Term
<p><b>Action CA-2</b>— Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the Comprehensive Plan.</p> <p><b>Hazards Mitigated:</b> Dam Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
New and Existing	6, 7, 9, 10, 11	1, 6	Public Works	Emergency Management, Planning Department	Moderate	BRIC, HMGP, Staff Time	Short-Term
<p><b>Action CA-3</b>— Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</p> <p><b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
Not applicable	9	1, 6	Emergency Management	Public Works	Low	Staff Time, District CIP Budget	Short-Term
<p><b>Action CA-4</b>—Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements: • Enforce the flood damage prevention ordinance. • Participate in floodplain identification and mapping updates. • Provide public assistance/information on floodplain requirements and impacts.</p> <p><b>Hazards Mitigated:</b> Flood</p>							
New and Existing	4	1	Planning Department	Emergency Management, Public Works	Moderate	HMGP, PDM, FMA	Short-Term

**Action CA-5**— Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for development of emergency water access or storage facilities at identified locations.

<b>Hazards Mitigated:</b> Wildfire							
New	2, 8, 9	4	Public Works	Emergency Management, Planning Departments	High	PDM, FMA	Short-Term
<b>Action CA-6—</b> Develop a post-disaster recovery plan and a debris management plan.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Existing	1, 2, 4, 6, 7, 8, 9	1, 2, 3, 4	Emergency Management	Public Works	Moderate	BRIC, HMGP, PDM, HMGP Post-Fire, Staff Time, District CIP Budget	Short-Term
<b>Action CA-7—</b> Create a fuels reduction zone with landowners in collaboration with other fire service agencies along all roadways identified as evacuation routes.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	3, 4, 6, 7, 8, 9, 11	1, 3, 4, 5	Fire department	Emergency Management, Public Works	Very High	HMGP, BRIC, PDM, HMGP Post-Fire, District CIP Budget, State wildfire grants, local matching funds	Short-Term
<b>Action CA-8—</b> Install back-up power supply at all city facilities, including the city’s water supply wells, water treatment plan, and booster pump stations.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Earthquake, Flood, Severe Weather, Wildfire							
Existing	2, 4, 6, 8	1, 2, 4	Public Works	Emergency Management	Very High	BRIC, HMGP, District CIP Budget	Short-Term
<b>Action CA-9—</b> Perform a seismic risk assessment on all city facilities and retrofit those structures with risk.							
<b>Hazards Mitigated:</b> Earthquake							
Existing	2, 4, 6, 10	1, 4	Public Works	Emergency Management	Very High	BRIC, HMGP, PDM, District CIP Budget	Long-Term
<b>Action CA-10—</b> Adopt WUIC codes.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	3, 6, 10	4, 5	Community Development	Emergency Management, Fire Department	Moderate	BRIC, HMGP, Staff Time, District CIP Budget	Short-Term
<b>Action CA-11—</b> Coordinate with Washington State Department of Transportation to designate alternate evacuation routes.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire							

Not Applicable	1, 8, 9	1, 4, 6	Emergency Management	WSDOT	Moderate	BRIC, HMGP, District CIP Budget, WSDOT funding	Short-Term
<b>Action CA-12</b> — Improve early notification of emergencies and subsequent evacuation plans.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 4, 6, 7	1	Emergency Management	Law Enforcement, Public Works	Moderate	BRIC, HMGP, Staff Time, District CIP Budget	Long-Term
<b>Action CA-13</b> — Coordinate with Chelan County Flood Control District on options for the maintenance and management of the levee system within the City.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Flood							
New and Existing	4, 6	1, 3	Public Works	CCFCZD, USACE	Very High	BRIC, HMGP, FMA, District CIP Budget, USACE	Long-Term
<b>Action CA-14</b> — Increase redundancy in the water supply system and improve fire flow. Vulnerabilities include aging cast iron and galvanized steel pipes that are too small to meet fire flow requirements and are easily damaged, pressure zones that do not have storage, river crossing that are vulnerable to damage, and single source supply to several areas of the City. Mitigation action and project locations are described in the water system plan CIP. Evaluate adequacy and resiliency of water system in predicted future drought conditions.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 4, 6, 7	1	Emergency Management	Law Enforcement, Public Works	Moderate	BRIC, HMGP, Staff Time, District CIP Budget	Long-Term
<b>Action CA-15</b> — Assess the current and future flood risk to the wastewater treatment plant and evaluate the feasibility of repairing or setting back the existing levee.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Flood							
New and Existing	4, 6	1, 3	Public Works	CCFCZD, USACE	Very High	BRIC, HMGP, FMA, District CIP Budget, USACE	Long-Term

Acronyms used here are defined at the beginning of this volume.

**Table 3-15. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
CA-1	3	3	3	3	3	0	3	0	3	3	3	3	3	3	3	39	High
CA-2	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	39	High
CA-3	1	1	3	3	3	3	0	0	0	3	3	3	3	3	3	32	High
CA-4	3	3	3	3	3	0	3	0	3	0	3	0	3	3	3	33	High
CA-5	3	1	3	3	3	3	3	0	3	0	3	0	3	3	3	34	High
CA-6	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	43	High
CA-7	3	3	3	3	3	3	3	3	3	3	3	0	3	3	3	42	High
CA-8	3	3	3	3	3	0	3	0	3	3	3	3	3	3	3	39	High
CA-9	3	3	3	3	3	0	3	0	0	3	3	0	0	3	3	30	Medium
CA-10	3	3	3	3	3	3	3	3	3	3	3	0	3	3	3	42	High
CA-11	3	3	3	3	3	0	3	0	0	3	3	3	3	3	3	36	High
CA-12	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	39	High
CA-13	3	3	3	3	3	3	3	0	0	0	3	3	3	3	3	36	High
CA-14	3	3	3	3	3	1	3	0	3	3	3	3	3	3	3	40	High
CA-15	3	3	1	1	3	1	1	1	3	3	1	1	1	3	3	29	Medium



**Table 3-16. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazard		Medium-Ranked Hazard			Low-Ranked Hazard		
		Wildfire	Severe Weather	Earthquake	Drought	Flood	Dam or Levee Failure	Landslide	Avalanche
CA-1	Safety and Security, Transportation	●	●	●		●	●		
CA-2	Community Capacity Building	●	●	●	●	●	●		
CA-3	Community Capacity Building	●	●	●	●	●	●	●	●
CA-4	Property Protection					●			
CA-5	Structural Projects, Community Capacity Building	●							
CA-6	Prevention, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience	●	●	●	●	●	●		
CA-7	Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience	●							
CA-8	Prevention, Property Protection, Emergency Services, Climate Resilience	●	●	●		●	●		
CA-9	Prevention, Property Protection, Emergency Services, Structural Projects, Climate Resilience			●					
CA-10	Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience	●							
CA-11	Prevention, Emergency Services, Community Capacity Building	●	●	●		●	●		
CA-12	Public Education and Awareness, Emergency Services, Community Capacity Building	●	●	●	●	●	●		
CA-13	Prevention, Property Protection, Emergency Services, Structural Projects					●	●		
CA-14	Prevention, Property Protection, Emergency Services, Structure Projects, Climate Resilience	●	●	●	●	●	●		
CA-15	Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience					●	●		

### 3.9 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **City Code – Referenced floodplain ordinance and other regulations**
- **Comprehensive Plan – reviewed growth plans**
- **Comprehensive Water System Plan – Identified capital projects with a goal of mitigation.**
- **Wastewater System Plan – Identified capital projects with a goal of 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.

### 3.10 HAZARD MAPS

## 4. CITY OF CHELAN

### 4.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

John Ajax, Community Development Director  
 135 E. Johnson Avenue  
 Chelan, WA 98816  
 509-682-8005  
 jajax@cityofchelan.us

**Alternate Point of Contact**

Casey Tjeerdsma, Building Official  
 135 E. Johnson Avenue  
 Chelan, WA 98816  
 509-682-8038  
 caseyt@cityofchelan.us

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 4-1.

**Table 4-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Wade Farris	City Administrator
John Ajax	Community Development Director
Casey Tjeerdsma	Building/Fire Code Official
Jake Youngren	Public Works Director

### 4.2 JURISDICTION PROFILE

#### 4.2.1 Location and Features

The City of Chelan is located at the southern terminus of Lake Chelan above the Chelan River. It is approximately 180 miles east of Seattle. The City's total area is approximately 7 square miles, with boundaries generally extending around the lake from Rocky Point in the northwest to Lakeside Park south to east-west to Willmorth Rd in the east. The geography is described as a glacier-carved valley. The unincorporated town of Manson is located to the northwest and the City of Wenatchee to the south.

#### 4.2.2 History

Incorporated in 1902, the City of Chelan initially was as a hub for agriculture, forestry, and mining during the 1800s. Currently, tourism is the predominant industry. Throughout its history, the city has grown through several annexations. Areas once predominantly agricultural are now primarily residential.

#### 4.2.3 Governance

The City of Chelan is a Strong Mayor government structure, with a seven-member City Council. The city is organized into several departments: Administration, Public Works, Finance, Community Development, and Parks and Recreation. Police services are outsourced to the Chelan County Sheriff's Department, while fire protection is managed by Chelan County Fire and Rescue 7. Hospital and EMS services are delivered by Lake Chelan Hospital. The City Council is tasked with adopting this plan, with the City Administrator responsible for overseeing its implementation alongside the city departments.

### 4.3 CURRENT TRENDS

#### 4.3.1 Population

The April 1 estimate by Washington State Office of Financial Management for 2023 indicates a population of 4,470. Between 2015 and 2022, the City of Chelan Urban Growth Area (UGA) experienced a population growth rate of 0.91%.

Based on medium growth trends, the projected population for the City of Chelan UGA in 2046 is 5,201. However, if the current population trend persists, it could surpass 5,804.

#### 4.3.2 Development

During the COVID pandemic, there was a rise in the construction of single-family homes. Although the precise reasons for this increase are unclear, it is believed to be linked to factors such as remote work, retirees relocating, and the acquisition of second homes. Meanwhile, the need for affordable housing persists, especially for lower-income families and service industry workers, representing a significant ongoing challenge.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 4-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 4-2. Recent and Expected Development Trends**

Criterion	Response					
<b>Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?</b>	Yes					
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	90.5 acres, 7 parcels, 4 structures					
<b>Is your jurisdiction expected to annex any areas during the performance period of this plan?</b>	Yes					
<i>If yes, describe land areas and dominant uses.</i>	Yes, lands located within the UGA are anticipated to become part of the city in the future. Most of the potential annexation areas are currently lower density residential and contain elements of agriculture.					
<i>If yes, who currently has permitting authority over these areas?</i>	Chelan County is the permitting authority for lands located outside of the Chelan City limits and with the UGA.					
<b>Are any areas targeted for development or major redevelopment in the next five years?</b>	Yes					
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>	Apple Blossom Center located in the eastern part of the City of Chelan. Proposed development is largely multi-family. No known hazards at this time. Chelan Butte is in feasibility for development. The number of planned structures is unknown at this time. Several hazards exist at this location, including geohazards such as erosion and wildfire.					
<b>How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?</b>	2019	2020	2021	2022	2023	
	Single Family	45	79	67	60	31
	Multi-Family	11	0	0	0	2
	Other	3	0	4	6	4
	<b>Total</b>	<b>59</b>	<b>79</b>	<b>71</b>	<b>66</b>	<b>37</b>

<p><b>Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.</b></p>	<ul style="list-style-type: none"> <li>• Special Flood Hazard Areas: 0</li> <li>• Landslide: 0</li> <li>• High Liquefaction Areas: 0</li> <li>• Wildfire Risk Areas: All areas in Chelan are regulated as moderate or above interface or intermix wildland fire. Intermix and Interface areas have been mapped, but all properties are regulated under the moderate risk, excepting areas in urbanized high density do not require defensible space</li> </ul>
<p><b>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.</b></p>	<p>2017 buildable lands inventory (most current) shows 41.3 acres within the city and UGA across all zoning areas. Population capacity for growth within this planning area was calculated to be 3,108, excluding seasonal units. Season unit build capacity is 1,316. The UGA was reduced based on this surplus capacity in 2017. Future buildout analysis will be conducted as part of the 2026 Comprehensive Plan update process.</p>

## 4.4 CAPABILITY ASSESSMENT

### 4.4.1 Existing Capabilities

The City of Chelan has performed an inventory and analysis of existing capabilities, plans, programs and policies that enhance its ability to implement mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning and regulatory capabilities is presented in Table 4-3.
- Development and permitting capabilities are presented in Table 4-4.
- An assessment of fiscal capabilities is presented in Table 4-5.
- An assessment of administrative and technical capabilities is presented in Table 4-6.
- An assessment of education and outreach capabilities is presented in Table 4-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 4-8.
- Classifications under various community mitigation programs are presented in Table 4-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 4-10.

**Table 4-3. Planning and Regulatory Capability**

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	No	Yes	Yes?
<i>Comment: RCW 19.27.031</i>				
<b>Zoning Code</b>	Yes	No	Yes	Yes
<i>Comment: City of Chelan Ord. 2023-1615</i>				
<b>Subdivisions</b>	Yes	No	Yes	Yes
<i>Comment: RCW 58.17 and City of Chelan Ord. 2023-1612</i>				
<b>Stormwater Management</b>	Yes	Yes	Yes	Yes
<i>Comment: Ecology over one acre and City of Chelan Adopted Development Standards</i>				

<b>Post-Disaster Recovery</b>	No	No	No	No
<i>Comment:</i>				
<b>Real Estate Disclosure</b>	No	Yes	Yes	Yes
<i>Comment:</i>				
<b>Growth Management</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	RCW 36.70A			
<b>Site Plan Review</b>	Yes	No	Yes	Yes
<i>Comment:</i>				
<b>Environmental Protection</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	RCW 43.21C and City of Chelan Ord. 1533			
<b>Flood Damage Prevention</b>	Yes	Yes	Yes	Yes?
<i>Comment:</i>	City of Chelan Ord. Ord. 1307			
<b>Emergency Management</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	By contract			
<b>Climate Change</b>	No	No	No	No
<i>Comment:</i>				
<b>Other</b>	No	No	No	No
<i>Comment:</i>				
<b>Planning Documents</b>				
<b>Comprehensive Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County and City of Chelan			
<b>Capital Improvement Plan</b>	Yes	No	Yes	Yes
<i>How often is the plan updated?</i>	biennial (CIP)			
<i>Comment:</i>				
<b>Disaster Debris Management Plan</b>	Yes	No	No	Yes
<i>Comment:</i>	Chelan County plan in development			
<b>Floodplain or Watershed Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County CFHMP			
<b>Stormwater Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	Plan is currently in process of being developed			
<b>Urban Water Management Plan</b>	Yes	No	No	Yes
<i>Comment:</i>	City of Chelan			
<b>Habitat Conservation Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	City of Chelan Ord. 1533			
<b>Economic Development Plan</b>	Yes	No	No	Yes
<i>Comment:</i>	City of Chelan Comprehensive Plan			
<b>Shoreline Management Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	City of Chelan Ord. 2021-1592			
<b>Community Wildfire Protection Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	City of Chelan Ord. 1533			
<b>Forest Management Plan</b>	No	Yes	No	Yes
<i>Comment:</i>				

<b>Climate Action Plan</b>	Yes	Yes	No	Yes
<i>Comment:</i>	<i>To be part of 2026 Comprehensive Plan Update</i>			
<b>Comprehensive Emergency Management Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	No	No	No
<i>Comment:</i>	<i>Unknown</i>			
<b>Post-Disaster Recovery Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Continuity of Operations Plan</b>	Yes	No	No	Yes
<i>Comment:</i>	<i>Current version is March 2022</i>			
<b>Public Health Plan</b>	No	Yes	Yes	Yes
<i>Comment:</i>				

**Table 4-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Yes
• If no, who does? If yes, which department?	Community Development
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory?	No

**Table 4-5. Fiscal Capability**

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 (Water and Sewer)
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	Unknown
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	

**Table 4-6. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Planning and Public Works
Engineers or professionals trained in building or infrastructure construction practices (limited)	Yes	Public Works
Planners or engineers with an understanding of natural hazards	Yes	Planning
Staff with training in benefit/cost analysis	No	
Surveyors	No	Currently soliciting services through RFP
Personnel skilled or trained in GIS applications	Limited	Planning
Scientist familiar with natural hazards in local area	No	
Emergency manager	No	
Grant writers	Yes	Consultant by contract
Other	No	

**Table 4-7. Education and Outreach Capability**

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



**Table 4-8. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	Planning and Building
Who is your floodplain administrator? (department/position)	Building Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	Amended 2005
Does your jurisdiction have the latest effective Flood Insurance Rate Maps adopted? <i>If no, state why. If yes, what is the effective date?</i>	Yes 1/5/1978
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways? 1-foot freeboard	Exceeds
When was the most recent Community Assistance Visit or Community Assistance Contact?	unknown
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? • If so, state what they are.	No
Are any RiskMAP projects currently underway in your jurisdiction? • If so, state what they are.	Yes FEMA county-wide FIRM update
Do your flood hazard maps adequately address the flood risk within your jurisdiction? • If no, state why. Some areas may need to be removed	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? • If so, what type of assistance/training is needed?	Yes Basic
Does your jurisdiction participate in the Community Rating System (CRS)? • If yes, is your jurisdiction interested in improving its CRS Classification? • If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction? • What is the insurance in force? • What is the premium in force?	5 \$1,925,000 \$5,428
How many total loss claims have been filed in your jurisdiction? • What were the total payments for losses?	0 \$0
<b>Description of how the City implements the substantial improvement/substantial damage provisions of their floodplain management ordinance after an event.</b> Describe: During a flood event, city staff or contracted support will perform a windshield survey to identify which structures are affected by flooding. After the event, all damaged structures within the floodplain will be required to obtain a flood permit for the proposed repairs and provide a contractor’s cost estimate. The cost will be compared to the market value of the structure prior to damage, starting with the assessed improvement value, if available, or an appraised value secured by the landowner. If the cost to repair the structure is greater than 50% of the structure value, the structure will need to be brought into compliance with current floodplain regulations.	

a. According to FEMA statistics as of [Enter date](#)

**Table 4-9. Community Classifications**

	Participating?	Classification	Date Classified
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
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A

**Table 4-10. Adaptive Capacity for Climate Change**

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

<b>Local residents’ support of adaptation efforts</b>	Low
<i>Comment:</i>	
<b>Local residents’ capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local economy’s current capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local ecosystem’s capacity to adapt to climate impacts</b>	Unsure
<i>Comment:</i>	

- 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.

### 4.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning, Regulatory, Development, and Permitting Capabilities

Chelan can enhance its hazard mitigation planning by integrating land use policies that prioritize disaster-resilient development. This includes updating zoning regulations to discourage development in high-risk areas and ensuring that all new projects undergo a rigorous hazard impact assessment. Collaborating with local stakeholders to develop comprehensive disaster response plans will also strengthen community resilience.

#### Administrative and Technical Capabilities

Improving administrative capabilities through staff training and resource allocation can streamline emergency management processes. Continued investments in Geographic Information Systems (GIS) will enable better data analysis and mapping of hazards, facilitating more informed decision-making. Additionally, creating partnerships with neighboring jurisdictions can improve knowledge sharing and resource pooling for enhanced technical support.

#### Fiscal Capabilities

Chelan should explore diverse funding sources for hazard mitigation projects, including grants from federal and state agencies. Establishing a dedicated emergency management fund could ensure financial resources are readily available for mitigation initiatives. Implementing cost-benefit analyses for proposed projects will help prioritize investments in the most effective hazard mitigation strategies.

#### Public Education and Awareness Capabilities

Enhancing public education initiatives about local hazards and mitigation strategies is needed. Chelan can launch community workshops and outreach programs that inform residents about emergency preparedness, response plans, and recovery resources. Utilizing social media and local events will help engage the community and foster a culture of resilience.

## **NFIP Capabilities**

Strengthening participation in the National Flood Insurance Program (NFIP) is important for Chelan. This can be achieved by conducting community workshops to educate residents about flood insurance options and benefits. Updating floodplain management practices and ensuring compliance with NFIP standards will not only protect residents but also improve the city's eligibility for federal funding for future mitigation projects.

## **4.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

The information on hazards, risk, vulnerability and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### **4.5.1 Existing Integration**

In the performance period since adoption of the previous hazard mitigation plan, City of Chelan made progress on integrating hazard mitigation goals, objectives and actions into other planning initiatives. The following plans and programs currently integrate components of the hazard mitigation strategy:

- 2017 Comprehensive Plan – Wildfire Planning

### **4.5.2 Opportunities for Future Integration**

As this hazard mitigation plan is implemented, City of Chelan will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan in actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

- Comprehensive Plan
- Zoning Code
- Public Works Development Standards
- Critical Areas Ordinance
- Eastern Washington Stormwater Manual

## 4.6 RISK ASSESSMENT

### 4.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 4-11 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 hazard mitigation plan.

**Table 4-11. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Wildfire			8/20/2024	Stayman Fire
Flash Flood			07/03/2022	Unknown
Earthquake			1970-2018	153 events over 2.5 magnitude
Severe Storms			1970-2018	26 regional events not FEMA ranked
Regional Smoke Impacts			2009-2018	50 calls by CFR 7
Flash flood			7/19/2016	Chelan Airport mudflow, \$7,000 in damages
Flash flood			5/29/2015	Flash flood
Wildfire			08/14/2015	Chelan Complex Fire
Hail			7/5/2006	4.16 million in damages, crop damages
Flash flood			6/21/2006	Mudflows blocked Hwy 150, \$500,000
Flooding (stage)			1/5/2006	Stehekin River
Wildfire			8/12/2001	\$200,000 in property damage
Wildfire			8/2/1998	\$10 million in property damage, \$80 million in crop damage
Hail			6/21/1997	\$500,000 in damages
Hail			5/16/1994	\$8 million in damages, crop damages
Thunderstorm				Thunderstorm
Avalanche				Unknown

### 4.6.2 Hazard Risk Ranking

Table 4-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 4-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Earthquake	34	High
3	Severe Weather	33	High
4	Drought	20	Medium
5	Flood	18	Medium
8	Dam Failure	0	Low
8	Avalanche	0	Low
8	Landslide	0	Low

### 4.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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.

#### *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

## 4.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 4-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 4-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>C-1—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses. Retrofit existing critical facilities (i.e. hospitals, schools, ensure compliance with current building codes so the facilities are safe following earthquakes)</b>	Carried over to updated plan	C-1
<b>Comment: City of Chelan, Chelan County Fire 7, and School District are looking at options to replace their facilities.</b>		
<b>C-2—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</b>	Carried over to updated plan	C-2
<b>Comment: Ongoing effort</b>		
<b>C-3—Encourage retention of irrigated orchard lands along the perimeter in the WUI.</b>	Carried over to updated plan	C-3
<b>Comment: City of Chelan Zoning Ordinance permits crop and tree farming, and agri-tourism uses in zoning districts within and along the perimeter of the WUI. Additionally, the Zoning Ordinance contains right-to-farm regulations, in part, to encourage preservation of farms.</b>		

<b>C-4—Implement a public notification system to alert the public to severe storm activity</b>	Carried over to updated plan	C-4
<i>Comment: Rivercom/Chelan County EMS</i>		
<b>C-5—Update Floodplain Ordinance to be consistent with new FEMA maps once available</b>	Carried over to updated plan	C-5
<i>Comment: City’s Floodplain Ordinance has not been updated due to lack of staff resources.</i>		
<b>C-6—Coordinate with the WSDOT to designate alternate evacuation routes from each community in the event of an emergency</b>	Carried over to updated plan	C-6
<i>Comment: Chelan County EMS?</i>		
<b>C-7—Schedule and implement Emergency Response Planning, including table-top exercises</b>	Carried over to updated plan	C-7
<i>Comment: Chelan County EMS?</i>		
<b>C-8—Public Education/Community Preparedness Classes to teach neighborhoods to be self-reliant for three days following a disaster</b>	Carried over to updated plan	C-8
<i>Comment: Chelan Fire and Rescue?</i>		
<b>C-9—Provide classes to homeowners in the urban/wildland interface zones on maintaining “safe zones” around their homes. Focus on northern section of city near rodeo grounds.</b>	Carried over to updated plan	C-9
<i>Comment: Chelan Fire and Rescue?</i>		
<b>C-10—Complete a city-wide Community Wildfire Protection Plan</b>	Completed	N/A
<i>Comment: Needs update</i>		
<b>C-11—Revise subdivision development standards to include requirements for fire breaks/buffers</b>	Completed	N/A
<i>Comment: Zoning Ordinance requires development to provide defensible space consistent with the WUI Code.</i>		
<b>C-12—Map erosion potential zones, inventory homes, and revise hillside development standards accordingly</b>	Completed	N/A
<i>Comment: In 2017, the City adopted CMC Chapter 17.59 Hillside Development and Design Standards and updated Chapter 14.10 Critical Areas.</i>		
<b>C-13—Develop a Climate Action Plan</b>	Carried over to updated plan	C-10
<i>Comment: As part of the 2026 GMA periodic update, the City will adopt a new Climate Change and Resiliency Element.</i>		
<b>C-14—Develop irrigation and landscaping standards that minimize consumptive water use</b>	Carried over to updated plan	C-11
<i>Comment: Hillside development standards require the use of native vegetation and drought tolerant landscaping. Other landscaping, when required, includes native species and encourages the use of drought-tolerant plant materials and water conservation.</i>		
<b>C-15—Review/revise stormwater design standards</b>	Carried over to updated plan	C-12
<i>Comment: Public Works department is currently in process of mapping and developing a comprehensive stormwater plan.</i>		
<b>C-16—Produce better seismic/earthquake maps to guide additional building code revisions for high shaking and liquefaction areas</b>	Carried over to updated plan	C-13
<i>Comment: Not completed due to lack of staff resources.</i>		

<b>C-17—Include emergency power generators in all new/remodels of critical facilities in CIP</b>	Carried over to updated plan	C-14
<i>Comment: Ongoing</i>		
<b>C-18—Warehouse critical infrastructure and establish cooperative agreements with suppliers for repair after an emergency</b>	Carried over to updated plan	C-15
<i>Comment: Ongoing?</i>		
<b>C-19—Support neighborhood communication/warning platforms like “Next Door App,” Be Ready programs, Phone Trees</b>	Carried over to updated plan	C-16
<i>Comment: Ongoing</i>		



## 4.8 HAZARD MITIGATION ACTION PLAN

Table 4-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 4-15 identifies the priority for each action. Table 4-16 summarizes the mitigation actions by hazard of concern and mitigation type. Completed action worksheets are on file with the district.

**Table 4-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action C-1</b> — Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses. Retrofit existing critical facilities (i.e. hospitals, schools, ensure compliance with current building codes so the facilities are safe following earthquakes)							
<b>Hazards Mitigated:</b> Earthquake, Severe Weather, Wildfire							
Existing	2, 4, 6, 8, 10	1, 2, 4	Chelan School District, Chelan County Fire 7, Chelan County Sheriff	City of Chelan	High	HMGP, PDM, FMA	Long-Term
<b>Action C-2</b> — Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	7, 8, 9, 11	4, 5, 6	Planning Department	Chelan County – Emergency	Low	Staff Time, General Funds	Short-Term
<b>Action C-3</b> — Encourage retention of irrigated orchard lands along the perimeter in the WUI.							
<b>Hazards Mitigated:</b> Drought, Wildfire							
New	3, 4, 6, 7	1, 3, 4	Planning Department	Irrigation District, Chelan County, Fire 7	Moderate	Staff Time, Agricultural Grants	Short-Term
<b>Action C-4</b> — Implement a public notification system to alert the public to severe storm activity.							
<b>Hazards Mitigated:</b> Severe Weather							
Existing	1, 8, 11	1, 4	Emergency Management	City of Chelan, Chelan School District, Chelan County Fire 7, Chelan County Sheriff	Low	Staff Time, General Funds, HMGP, BRIC, PDM	Short-Term
<b>Action C-5</b> — Update Floodplain Ordinance to be consistent with new FEMA maps once available.							
<b>Hazards Mitigated:</b> Flood							

Existing	6, 7, 10	1, 3	City of Chelan Planning Department	FEMA, Public Works, Chelan County	Low	Staff Time, General Funds, BRIC, PDM, FMA	Short-Term
<b>Action C-6</b> — Coordinate with the WSDOT to designate alternate evacuation routes from each community in the event of an emergency.							
<b>Hazards Mitigated:</b> Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Existing	2, 6, 8, 9	1, 4	City of Chelan	WSDOT, Chelan County	Moderate	Staff Time, General Funds	Short-Term
<b>Action C-7</b> — Schedule and implement Emergency Response Planning, including table-top exercises.							
<b>Hazards Mitigated:</b>							
<b>New and Existing</b>							
	1, 8, 9, 11	4, 5	Emergency Management Department	Local Emergency Responders	Low	Staff Time, General Funds	Short-Term
<b>Action C-8</b> — Public Education/Community Preparedness Classes to teach neighborhoods to be self-reliant for three days following a disaster.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
<b>New and Existing</b>							
	11	5	Emergency Management Department	Local Community Organizations	Low	Staff Time, HMGP, BRIC, FMA	Short-Term
<b>Action C-9</b> — Provide classes to homeowners in the urban/wildland interface zones on maintaining “safe zones” around their homes. Focus on northern section of city near rodeo grounds.							
<b>Hazards Mitigated:</b> Wildfire							
	3, 11	1, 5	Fire Department	Emergency Management Department	Low	Staff Time, HMGP, BRIC, HMGP Post-Fire	Short-Term
<b>Action C-10</b> — Develop a Climate Action Plan.							
<b>Hazards Mitigated:</b> Drought, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	4, 6, 7	3, 6	Planning Department	Chelan County	Moderate	HMGP, BRIC, General Funds	Short-Term
<b>Action C-11</b> — Develop irrigation and landscaping standards that minimize consumptive water use.							
<b>Hazards Mitigated:</b> Drought							
New	4, 6, 10	1, 3	Planning Department	Irrigation District	Low	Staff Time, HMGP, BRIC, PDM, FMA	Short-Term
<b>Action C-12</b> — Review/revise stormwater design standards.							

<b>Hazards Mitigated:</b>	Flood, Landslide						
Existing	4, 6, 10	1, 3	Public Works	Planning Department	Moderate	Staff Time, HMGP, BRIC, PDM, FMA	Short-Term
<b>Action C-13</b> — Produce better seismic/earthquake maps to guide additional building code revisions for high shaking and liquefaction areas.							
<b>Hazards Mitigated:</b>	Earthquake, Landslide						
New and Existing	6, 7, 10	1, 3	Planning Department	Geology Consultants	Moderate	HMGP, BRIC, PDM, General Funds	Short-Term
<b>Action C-14</b> — Purchase generators for all critical facilities and infrastructure that lack adequate back-up power including all new/remodels of critical facilities in CIP.							
<b>Hazards Mitigated:</b>	Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire						
New and Existing	2, 3, 4, 6, 11	1, 2, 3, 4	Public Works		Very High	HMGP, Staff Time, BRIC, PDM	Short-Term
<b>Action C-15</b> — Warehouse critical infrastructure and establish cooperative agreements with suppliers for repair after an emergency.							
<b>Hazards Mitigated:</b>	Earthquake, Flood, Landslide, Severe Storm						
New and Existing	2, 3, 4, 6, 11	1, 2, 3, 4	Public Works	Chelan County PUD, Chelan	Very High	HMGP, Staff Time	Short-Term
<b>Action C-16</b> — Support neighborhood communication/warning platforms like “Next Door App,” Be Ready programs, Phone Trees.							
<b>Hazards Mitigated:</b>	Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire						
New and Existing	1, 8, 11	1, 4	Chelan County Emergency Management Department	Public Works	Low	Staff Time, General Funds, HMGP	Short-Term
<b>Action C-17</b> — Purchase sewer bypass pumping equipment to assist in addressing failure resulting from disaster.							
<b>Hazards Mitigated:</b>	Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire						
New and Existing	2, 4, 6, 11	1, 2, 3, 4	Public Works		High	HMGP, Staff Time	Short-Term
<b>Action C-18</b> — A new one-million-gallon reservoir constructed at an elevation suitable to provide fire flow availability for all of Chelan’s water systems							
<b>Hazards Mitigated:</b>	Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire						
New and Existing	2, 4, 6, 11	1, 2, 3, 4	Public Works		Very High	HMGP, Staff Time, BRIC, PDM	Short-Term

Acronyms used here are defined at the beginning of this volume.

Table 4-15. Mitigation Action Priority

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
C-1	3	3	1	3	3	1	3	0	1	1	3	3	3	3	3	34	High
C-2	1	1	3	3	3	3	1	0	1	1	3	3	3	3	3	32	High
C-3	1	3	1	3	3	1	1	3	3	1	3	1	3	3	1	31	High
C-4	3	1	3	3	3	1	1	0	1	1	3	1	3	3	3	30	Medium
C-5	1	3	3	3	3	1	1	0	3	1	3	1	3	3	1	30	Medium
C-6	3	1	3	3	3	1	1	0	1	1	3	3	3	3	3	32	High
C-7	3	1	3	3	3	3	1	0	1	1	3	3	3	3	3	34	High
C-8	3	1	3	3	3	1	1	0	1	3	3	3	3	3	3	34	High
C-9	3	3	3	3	3	1	1	1	3	1	3	1	3	3	3	35	High
C-10	1	1	1	3	3	1	1	1	3	1	1	3	1	3	1	25	Medium
C-11	1	1	3	3	3	1	1	3	3	1	3	1	3	3	1	31	High
C-12	1	3	3	3	3	1	1	1	3	1	3	3	3	3	1	33	High
C-13	1	3	1	3	3	1	1	0	1	1	3	1	3	3	1	26	Medium
C-14	3	3	3	3	3	1	3	0	1	3	3	3	3	3	3	38	High
C-15	1	3	3	3	3	1	1	0	1	1	3	3	3	3	3	32	High
C-16	3	1	3	3	3	1	1	0	1	3	3	3	3	3	1	32	High
C-17	3	3	3	3	3	1	1	0	1	3	3	3	3	3	3	36	High
C-18	3	3	3	3	3	0	3	0	1	3	3	3	3	3	3	37	High

**Table 4-16. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazard			Medium-Ranked Hazard		Low-Ranked Hazard		
		Wildfire	Earthquake	Severe Weather	Drought	Flood	Dam or Levee Failure	Landslide	Avalanche
C-1	Prevention, Property Protection, Structural Projects, Climate Resilience	●	●	●	●	●	●	●	●
C-2	Prevention, Community Capacity Building	●	●	●	●	●	●	●	●
C-3	Prevention, Natural Resource Protection, Climate Resilience, Community Capacity Building	●							
C-4	Emergency Services, Public Education and Awareness, Community Capacity Building			●					
C-5	Prevention, Property Protection, Climate Resilience					●			
C-6	Emergency Services, Community Capacity Building	●	●	●	●	●	●	●	●
C-7	Emergency Services, Community Capacity Building	●	●	●	●	●	●	●	●
C-8	Public Education and Awareness, Community Capacity Building	●	●	●	●	●	●	●	●
C-9	Public Education and Awareness, Natural Resource Protection, Climate Resilience, Community Capacity Building	●							
C-10	Climate Resilience, Community Capacity Building, Prevention	●	●	●	●	●	●	●	●
C-11	Prevention, Natural Resource Protection, Climate Resilience				●				
C-12	Prevention, Structural Projects, Climate Resilience					●		●	
C-13	Prevention, Property Protection, Community Capacity Building		●						

<b>C-14</b>	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●
<b>C-15</b>	Emergency Services, Community Capacity Building, Structural Projects		●			●		●	
<b>C-16</b>	Emergency Services, Public Education and Awareness, Community Capacity Building	●	●	●	●	●	●	●	●
<b>C-17</b>	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●		●	●	●	●
<b>C-18</b>	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●		●	●	●	●

## 4.9 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **Chelan Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **CMC Chapter 15.10 – Flood Damage Prevention**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.

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.

## 4.10 HAZARD MAPS

Hazard maps for the City of Chelan are provided on the following pages.

## 5. CITY OF ENTIAT

### 5.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Mark Botello, Public Works/Planning Director  
 14070 Kinzel St.  
 Entiat, WA 98822  
 509-784-1500  
 mbotello@entiatwa.us

**Alternate Point of Contact**

Sam Austin, Public Works, Utility Maintenance  
 14070 Kinzel St.  
 Entiat, WA 98822  
 509-784-1500  
 SAustin@entiatwa.us

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 5-1.

**Table 5-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Mark Botello	Public Works Director
Adam Jones	Entiat Fire District 8 and Entiat Fire Chief
Sam Austin	Public Works Utilities Maintenance

### 5.2 JURISDICTION PROFILE

#### 5.2.1 Location and Features

Entiat is located at the confluence of the Entiat and Columbia rivers. This section of the Columbia is known as Lake Entiat. This is the reservoir formed behind Rocky Reach Dam. The town is situated between the eastern foothills of the Cascade Mountain range, Lake Entiat, and the Entiat River. Entiat is located at 47°40'40"N 120°12'47"W (47.677640, -120.213149). According to the United States Census Bureau, the city has a total area of 2.74 square miles, of which, 2.11 square miles is land and 0.63 square miles is water.

Entiat gets 24 inches of rain, on average, per year. Entiat averages 76 inches of snow per year. On average, there are 203 sunny days per year in Entiat. Entiat gets some kind of precipitation, on average, 87 days per year. Precipitation is rain, snow, sleet, or hail that falls to the ground.

#### 5.2.2 History

In 1877, the first white settler arrived in the Entiat Valley, Lewis Detwiler. The first public school was established in Entiat in 1891. In 1895 the first Entiat Post Office was established. In 1903 the Chief of the Entiat Indian tribe, Shil-how-Saska (Silico Saska) died. The Entiat Power Plant opened for business in 1908. The Keystone Fruit Company opened for business in the valley in 1910. E.P. Murphy began publishing the Entiat Times in 1913, and railroad service began in Entiat in 1914. In 1915 a fire burned the "first" town of Entiat and only six businesses survived. The Entiat school opened in



1916 in its current location. In 1920, the tradition of Numeral Mountain began as High School seniors painted their graduation class number on the Mountainside across the Entiat River from the school. Entiat was officially incorporated on April 25, 1944. In 1960, Rocky Reach Dam was constructed downriver from Entiat, much of the town had to be relocated to higher ground due to the rising waters behind the dam. Most of the original buildings were razed or moved to a location north of the original town. The “third” town of Entiat was “officially” open for business in 1961. The new Entiat Park re-opened for camping on Friday, May 22, 2015, after being closed for over a year.

### 5.2.3 Governance

The City of Entiat is governed by a mayor-council. The city council assumes responsibility for the adoption of this plan; mayor and Public Works/Planning Director will oversee its implementation.

## 5.3 CURRENT TRENDS

### 5.3.1 Population

According to the State of Washington Office of Financial Management, City of Entiat’s 2024 population estimate was 1,360.

The analysis of local population and demographic trends is important for a broad understanding of the community and to anticipate future needs. Population trend analysis is based on U.S. Census data. The analysis of population projections for the next 20 years is based on the Office of Financial Management projections. According to the 2019 American Fact Finder, Entiat’s population for 2024 is approximately 1,360, and according to the 2020 United States Census the median age being approximately 42.3.

### 5.3.2 Development

The City of Entiat has maintained 2% growth rate the last three years with nearly all majority residences being single- family and multi-family. One property has developed into small scale Commercial.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 5-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 5-2. Recent and Expected Development Trends**

Criterion	Response
Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?	No
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	
Is your jurisdiction expected to annex any areas during the performance period of this plan?	No
<i>If yes, describe land areas and dominant uses.</i>	
<i>If yes, who currently has permitting authority over these areas?</i>	

<b>Are any areas targeted for development or major redevelopment in the next five years?</b>	No					
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>						
<b>How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?</b>		2019	2020	2021	2022	2023
	Single Family	8	6	15	4	3
	Multi-Family	1	1	2	1	1
	Other	10	22	11	12	11
	<b>Total</b>	<b>19</b>	<b>29</b>	<b>28</b>	<b>17</b>	<b>15</b>
<b>Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.</b>	<ul style="list-style-type: none"> <li>• Special Flood Hazard Areas: 0</li> <li>• Landslide: 0</li> <li>• High Liquefaction Areas: 0</li> <li>• Wildfire Risk Areas: 10</li> </ul>					
<b>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.</b>	Estimated at 40% buildout. No buildable lands inventory has been completed					

## 5.4 CAPABILITY ASSESSMENT

### 5.4.1 Existing Capabilities

The City of Entiat has performed an inventory and analysis of existing capabilities, plans, programs and policies that enhance its ability to implement mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning and regulatory capabilities is presented in Table 5-3.
- Development and permitting capabilities are presented in Table 5-4.
- An assessment of fiscal capabilities is presented in Table 5-5.
- An assessment of administrative and technical capabilities is presented in Table 5-6.
- An assessment of education and outreach capabilities is presented in Table 5-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 5-8.
- Classifications under various community mitigation programs are presented in Table 5-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 5-10.

Table 5-3. Planning and Regulatory Capability

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>Title 15, section 15.08.01 of the EMC adopts the international building code, International Residential code, International Mechanical Code, Uniform Plumbing Code, International Fire Code; In compliance with Chapter 19.27 RCW, the following codes, standards, and the Washington Administrative Code (WAC).</i>			
<b>Zoning Code</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>Title 18 of the EMC.</i>			
<b>Subdivisions</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>Title 16 of the EMC, Ordinance 799, passed March 28, 2019.</i>			
<b>Stormwater Management</b>	Yes	No	No	No
<b>Comment:</b>	<i>Title 19, Chapter 19.20 EMC.</i>			
<b>Post-Disaster Recovery</b>	No	No	No	Yes
<b>Comment:</b>				
<b>Real Estate Disclosure</b>	No	No	No	Yes
<b>Comment:</b>				
<b>Growth Management</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>City of Entiat Comprehensive Land Use Plan.</i>			
<b>Site Plan Review</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>Title 14, Chapter 14.08, EMC.</i>			
<b>Environmental Protection</b>	Yes	N	Yes	No
<b>Comment:</b>	<i>Title 17 of the EMC.</i>			
<b>Flood Damage Prevention</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>Title 17, Chapter 17.10.620 of the EMC.</i>			
<b>Emergency Management</b>	No	No	No	Yes
<b>Comment:</b>	<i>City falls under the authority of Chelan County Emergency Management for emergency management functions</i>			
<b>Climate Change</b>	Yes	No	Yes	N
<b>Comment:</b>	<i>City is updating and reviewing a comprehensive plan to develop a climate resilience plan.</i>			
<b>Other:</b>				
<b>Comment:</b>				
<b>Planning Documents</b>				
<b>Comprehensive Plan</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>City of Entiat Comprehensive Land Use Plan.</i>			
<b>Capital Improvement Plan</b>	Yes	No	Yes	No
<b>How often is the plan updated?</b>	N/A			
<b>Comment:</b>				

<b>Floodplain or Watershed Plan</b>	No	Yes	No	No
<b>Comment:</b>	<i>Chelan County Comprehensive Flood Hazard management Plan. City of Entiat Capital Facility plan.</i>			
<b>Stormwater Plan</b>	No	No	No	Yes
<b>Comment:</b>				
<b>Urban Water Management Plan</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>City has approved water and sewer comprehensive plans</i>			
<b>Habitat Conservation Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Economic Development Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Shoreline Management Plan</b>	Yes	No	Yes	No
<b>Comment:</b>	<i>City of Entiat Shoreline Management Plan</i>			
<b>Community Wildfire Protection Plan</b>	No	No	No	Yes
<b>Comment:</b>				
<b>Forest Management Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Climate Action Plan</b>	Yes	No	Yes	No
<b>Comment:</b>				
<b>Comprehensive Emergency Management Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	No	No	No
<b>Comment:</b>				
<b>Post-Disaster Recovery Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Continuity of Operations Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Public Health Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Other:</b>				
<b>Comment:</b>				

**Table 5-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Yes
• If no, who does? If yes, which department?	Community Development
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory?	Yes

**Table 5-5. Fiscal Capability**

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, Water and Sewer
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
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	Yes
Other	No

**Table 5-6. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development Director
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building Inspector
Planners or engineers with an understanding of natural hazards	Yes	Community Development Director
Staff with training in benefit/cost analysis	No	N/A
Surveyors	No	N/A
Personnel skilled or trained in GIS applications	Yes	Community Development Director
Scientist familiar with natural hazards in local area	No	N/A
Emergency Manager	No	N/A
Grant writers	Yes	Community Development Director
Other	No	N/A

Table 5-7. Education and Outreach Capability

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
• If yes, please briefly describe.	
Do you utilize social media for hazard mitigation education and outreach?	No
• If yes, please briefly describe.	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
• If yes, please briefly describe.	Planning Commission
Do you have any other programs already in place that could be used to communicate hazard-related information?	No
• If yes, please briefly describe.	
Do you have any established warning systems for hazard events?	No
• If yes, please briefly describe.	

Table 5-8. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Community Development
Who is your floodplain administrator? (department/position)	Community Development Director
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	N/A
Does your jurisdiction have the latest effective Flood Insurance Rate Maps adopted?	No SFHA identified
<i>If no, state why. If yes, what is the effective date?</i>	
Does your floodplain management program meet or exceed minimum requirements?	Exceeds
• If exceeds, in what ways?	
When was the most recent Community Assistance Visit or Community Assistance Contact?	N/A
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
• If so, please state what they are.	
Are any RiskMAP projects currently underway in your jurisdiction?	
• If so, state what they are.	
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
• If no, please state why.	
Does your floodplain management staff need any assistance or training to support its floodplain management program?	No
• If so, what type of assistance/training is needed?	

Does your jurisdiction participate in the Community Rating System (CRS)?	No
• If yes, is your jurisdiction interested in improving CRS Classification?	No
• Is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup>	0
• What is the insurance in force?	\$0
• What is the premium in force?	\$0
How many total loss claims have been filed in your jurisdiction? <sup>a</sup>	0
• How many claims are still open/were closed without payment?	N/A
• What were the total payments for losses?	\$0
<b>Description of how the City implements the substantial improvement/substantial damage provisions of their floodplain management ordinance after an event.</b>	
Describe: No SFHA is identified within the City; therefore SI/SD enforcement provisions are not required.	
a. According to FEMA statistics as of July 22, 2024	

**Table 5-9. Community Classifications**

	Participating?	Classification	Date Classified
Community Rating System	No	No	N/A
Building Code Effectiveness Grading Schedule	Unknown	Unknown	Unknown
Public Protection	Yes	6 (inside City)	2020
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A

**Table 5-10. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	Low
<i>Comment:</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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>	
Participation in regional groups addressing climate risks	Low
<i>Comment:</i>	
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
<i>Comment:</i>	

Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i>	
Identified strategies for adaptation to impacts	Low
<i>Comment:</i>	
Champions for climate action in local government departments	Low
<i>Comment:</i>	
Political support for implementing climate change adaptation strategies	Low
<i>Comment:</i>	
Financial resources devoted to climate change adaptation	Low
<i>Comment:</i>	
Local authority over sectors likely to be negative impacted	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
Local residents' knowledge of and understanding of climate risk	Low
<i>Comment:</i>	
Local residents' support of adaptation efforts	Low
<i>Comment:</i>	
Local residents' capacity to adapt to climate impacts	Low
<i>Comment:</i>	
Local economy's current capacity to adapt to climate impacts	Low
<i>Comment:</i>	
Local ecosystem's capacity to adapt to climate impacts	Low
<i>Comment:</i>	

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.

### 5.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning, Regulatory, Development, and Permitting Capabilities

- Development of a Wildfire, Wildland-Urban Interface Code, Protection Plan, and Post-Disaster Recovery Plan is identified as an opportunity for expansion, specifically with regard to wildfire within the Entiat area.
- Tracking permits by hazard area is not currently being done; however, permit tracking software can be updated to do so.
- The 2026 Comprehensive Plan update will include a new Climate Resiliency sub-element and the Hazard Mitigation Plan will be integrated.



### **Administrative and Technical Capabilities**

- The City of Entiat is not large enough to staff a GIS specialist or a scientist familiar with natural hazards in the local area. The City of Entiat may consider funding an on-call qualified professional to fill these roles in the future.

### **Fiscal Capabilities**

- It is likely the City of Entiat will initiate a development impact fee for developers to improve infrastructure, but this does not need to be added as a mitigation action plan.

### **Public Education and Awareness Capabilities**

- Community education and outreach is a priority within the City of Entiat. Improvements to the City's website and utilization of social media platform will be used to expand community awareness of hazard mitigations.

### **NFIP Capabilities**

- Based on the capability assessment, the City of Entiat does not need to expand this capacity.

## **5.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

The information on hazards, risk, vulnerability, and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### **5.5.1 Existing Integration**

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

- **City of Comprehensive Plan** – The Comprehensive Plan identifies goals related to geological hazards, fire hazards, flood control and water protections.
- **Capital Improvement Plan** – Includes funding related to public services and identifies improvements to address deficiencies.
- **Building Codes** – The City of Entiat has adopted the most recent addition of the International Building Codes.
- **Water System Plan** – This plan includes hazard identification and mitigation and also requirements for fire flow.
- **Sewer System Plan** – This plan includes hazard identifications and mitigations.
- **Shoreline Master Program** – Includes standards for protections of public and private properties from adverse effects along shorelines

## 5.5.2 Opportunities for Future Integration

As this hazard mitigation plan is implemented, City of Entiat will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan in actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

- **City of Entiat Municipal Code** – Reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Entiat Comprehensive Plan** – Reviewed for the full capability assessment and for identifying opportunities for action plan integration
- **Capital Improvement Plan** – Plan and identify funding strategies for future improvements and hazard mitigations.

## 5.6 RISK ASSESSMENT

### 5.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 5-11 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 hazard mitigation plan.

**Table 5-11. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Severe storms, high wind, and flooding	N/A	Yes	2023	Power outages and damaged structures
Earthquakes	N/A	No	2022	Power outages, damaged structures, fires,
Snowstorm	N/A	No	1/07/2022	Road closures, structure damage, businesses closed
Fires	N/A	No	2001	Power outages, damaged structures
Volcanic Eruption – Mt. St. Helens	623	Yes	May 1980	Ash removal

### 5.6.2 Hazard Risk Ranking

Table 5-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 5-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Earthquake	34	High
3	Severe Weather	33	High
4	Drought	20	Medium
5	Dam Failure	6	Low
8	Flood	0	Low
8	Landslide	0	Low
8	Avalanche	0	Low

### 5.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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.

#### *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

## 5.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 5-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 5-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>E-1—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.</b>	Carried over to updated plan	E-12
<b><i>Comment:</i> No action was taken due to a lack of funding, but this is still a priority for the city. Applicable grant funding opportunities will be pursued to implement this project.</b>		
<b>E-2—Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the Comprehensive Plan.</b>	Carried over to updated plan	E-1
<b><i>Comment:</i> This is in process with the Climate Change grant and Comp Plan update</b>		
<b>E-3—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</b>	Carried over to updated plan	E-4
<b><i>Comment:</i> No action was taken due to a lack of funding, but this is still a priority for the city. Applicable grant funding opportunities will be pursued to implement this project.</b>		

E-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"> <li>• Enforce the flood damage prevention ordinance.</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/information on floodplain requirements and impacts.</li> </ul>	Carried over to updated plan	E-3
<i>Comment:</i> The City is in compliance with NFIP and will review applicable documents for compliance.		
E-5—Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for development of emergency water access or storage facilities at identified locations.	Carried over to updated plan	E-9
<i>Comment:</i> The City will include this in the water system plan update		
E-6—Develop a post-disaster recovery plan and a debris management plan.	Carried over to updated plan	E-10
<i>Comment:</i> This is medium-term. We may work on this during Climate Change.		
E-7—Create a fuels reduction zone with landowners in collaboration with other fire service agencies along all roadways identified as evacuation routes.	Carried over to updated plan	E-8
<i>Comment:</i> No action was taken due to a lack of funding, but this is still a priority for the city. Applicable grant funding opportunities will be pursued to implement this project.		
E-8—Install back-up generators at all city facilities.	Carried over to updated plan	E-2
<i>Comment:</i> No action was taken due to a lack of funding, but this is still a priority for the city. Applicable grant funding opportunities will be pursued to implement this project.		
E-9—Perform a seismic risk assessment on all city facilities, and retrofit those structures with risk.	Carried over to updated plan	E-11
<i>Comment:</i> No action was taken due to a lack of funding, but this is still a priority for the city. Applicable grant funding opportunities will be pursued to implement this project.		
E-10—Adopt WUIC codes.	Carried over to updated plan	E-7
<i>Comment:</i> The City Council is considering these updates.		
E-11—Coordinate with Washington State Department of Transportation to designate alternate evacuation routes.	Carried over to updated plan	E-6
<i>Comment:</i> This may be included within the Downtown business plan		
E-12—Improve early notification of emergencies and subsequent evacuation plans.	Carried over to updated plan	E-5
<i>Comment:</i> This City will look into this as part of the web site update, which will include notification		

## 5.8 HAZARD MITIGATION ACTION PLAN

Table 5-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 5-15 identifies the priority for each action. Table 5-16 summarizes the mitigation actions by hazard of concern and mitigation type. Completed worksheets are on file with the City.

**Table 5-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action E-1</b> — Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the Comprehensive Plan.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire, Avalanche							
Existing	1, 2, 4, 6	1, 6	City of Entiat Public Works, WA State of Commerce	Fire District 8, Ecology	Moderate	City of Entiat General Fund, WA State, Staff Time, BRIC, HMGP, Post-Fire HHDP	Short-term
<b>Action E-2</b> — Install back-up generators at all city facilities, including a mobile electrical generator.							
<b>Hazards Mitigated:</b> Earthquake, Severe Weather, Wildfire							
New and Existing	1, 2, 3, 5, 6, 8, 9	1, 4	City of Entiat Public Works, Chelan County Public Works, WA State Department of Ecology	Chelan County	High	BRIC, HMGP, PDM, FMA, HMGP, Post-Fire, HHDP, portion city general fund and city utility fund, Ecology funding when city seeks water and wastewater improvements and expansions	Short-Term
<b>Action E-3</b> — 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"> <li>• Enforce the flood damage prevention ordinance.</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/information on floodplain requirements and impacts.</li> </ul>							
<b>Hazards Mitigated:</b> Flood							

New and Existing	1, 3, 4, 6, 8	1, 3, 5	City of Entiat Public Works	Fire District, FEMA, Ecology	High	City of Entiat General Fund, FEMA, WA State Commerce, Ecology, Other	Short-Term
<b>Action E-4</b> — Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire, Avalanche							
New and Existing	1, 2, 3, 4, 5, 6, 10	1, 6	City of Entiat Public Works, Chelan County Public Works	Chelan County	Moderate	BRIC, HMGP, FEMA, City of Entiat General Fund, Ecology, WA State Commerce, Ecology, Other	Short-term
<b>Action E-5</b> — Improve early notification of emergencies and subsequent evacuation plans.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire, Avalanche							
New and Existing	3, 4, 5	1, 4	City of Entiat Public Works, Chelan County Public Works	Chelan County	Low	City of Entiat General Fund, Ecology, Chelan County, Other	Short-term
<b>Action E-6</b> — Coordinate with Washington State Department of Transportation to designate alternate evacuation routes.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire, Avalanche							
New and Existing	1, 2, 3, 4, 6	1, 4	City of Entiat Public Works, WSDOT	Chelan County	Low	City of Entiat General Fund, WSDOT, Chelan County Public Works, FEMA HMGP Post Fire, Other	Short-term
<b>Action E-7</b> — Adopt WUIC codes.							
<b>Hazards Mitigated:</b> Wildfire							

New and Existing	1, 2, 3, 5, 6, 7, 10, 12	1, 3	City of Entiat Public Works, Chelan County Community Development and Chelan County Fire District 8	Chelan County	Low	City of Entiat General Fund, Other Chelan County Fire District 8	Short-term
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**Action E-8**— Create a fuels reduction zone with landowners in collaboration with other fire service agencies along all roadways identified as evacuation routes.

<b>Hazards Mitigated:</b> Wildfire							
New and Existing	1, 2, 3, 5, 6, 7, 10, 12	1, 3, 6	City of Entiat Public Works, Chelan County Public Works	Chelan County	Moderate	City of Entiat General Fund, FEMA HMGP Post-Fire, Other	Short-term

**Action E-9**— Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for development of emergency water access or storage facilities at identified locations.

<b>Hazards Mitigated:</b> Drought							
New and Existing	1, 2, 3, 4, 5, 6, 11, 12	1, 4, 6	City of Entiat Public Works, Chelan County Natural Resources	Chelan County, Ecology, DOW, FEMA, Fire District 8	Low	City of Entiat General Fund, WA State Dept of Health and Ecology, Water utility rates, State of WA DOH, Other	Long-term

**Action E-10**— Develop a post-disaster recovery plan and a debris management plan.

<b>Hazards Mitigated:</b> Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Existing	1, 2, 3, 4, 5, 6, 7, 9	1, 2	City of Entiat Public Works, Chelan County	Chelan County, FEMA	Moderate	City of Entiat General Fund, Entiat City Staff, WA State Dept of Ecology, FEMA HMGP POST-Fire, Other	Long-term

**Action E-11**— Perform a seismic risk assessment on all city facilities, and retrofit those structures with risk.

<b>Hazards Mitigated:</b> Earthquake							
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Existing	1, 2, 3, 4, 5, 6, 7, 9	1	City of Entiat Public Works	Fire District 8	Very High	City of Entiat General Fund and Water and Sewer Utility funds, FEMA BRIC, Other	Short-term
<b>Action E-12</b> — Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Earthquake, Severe Weather, Wildfire							
Existing	1, 2, 4, 6	1, 3	City of Entiat Public Works	N/A	Very High	City of Entiat General Fund, General Fund and Water and Sewer Utility funds, FEMA BRIC, Other	Short-term

Acronyms used here are defined at the beginning of this volume.

**Table 5-15. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
E-1	3	3	3	3	3	1	2	2	1	2	2	2	1	2	2	32	High
E-2	3	3	3	3	3	3	3	1	1	3	3	3	3	3	3	41	High
E-3	3	3	3	3	3	2	2	2	1	2	2	2	1	2	2	33	High
E-4	3	3	3	3	3	2	2	2	1	2	2	2	1	2	2	33	High
E-5	3	3	3	3	3	2	2	2	1	2	2	2	1	2	2	33	High
E-6	3	3	3	3	3	2	2	2	1	2	2	2	1	2	2	33	High
E-7	3	3	3	3	3	2	1	3	1	1	3	2	3	3	3	37	High
E-8	3	3	2	3	3	2	1	2	1	1	3	1	2	3	2	32	High
E-9	3	3	3	3	3	2	2	2	1	1	3	1	2	3	2	34	High



Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
E-10	3	3	3	3	3	3	1	2	1	2	3	3	2	3	2	37	High
E-11	3	3	2	3	3	3	1	2	1	1	3	1	2	3	2	33	High
E-12	3	3	2	3	3	3	1	2	1	1	3	1	2	3	2	33	High

Table 5-16. Mitigation Action Classification

Action	Mitigation Classification	High-Ranked Hazard			Medium-Ranked Hazard	Low-Ranked Hazard				
		Wildfire	Earthquake	Severe Weather	Drought	Dam or Levee Failure	Flood	Landslide	Avalanche	
E-1	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Hazard Identifications	●	●	●	●	●	●	●	●	●
E-2	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●	●	●						
E-3	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building, Hazard Identifications						●			
E-4	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●	●	●	●	●	●	●	●	●

E-5	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●	●	●	●	●	●	●	●
E-6	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●	●	●	●	●	●	●	●
E-7	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●							
E-8	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●							
E-9	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building				●				
E-10	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●	●	●	●	●	●	●	●
E-11	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building		●						
E-12	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●	●	●		●			

## 5.9 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **City of Entiat Municipal Code Titles 15, 17, 18 and 19**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Entiat Flood Damage Prevention Ordinance No 733 Exh.1**— adopted 2012 for Frequently Flooded Areas—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- **Chelan County Flood Damage Prevention Ordinance**— The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.

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.

## 5.10 HAZARD MAPS

Hazard maps for the City of Entiat are provided on the following pages.



## 6. CITY OF LEAVENWORTH

### 6.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Maggie Boles, Senior Planner  
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 Leavenworth, WA 98826  
 509-548-5275 (x 132)  
 mboles@cityofleavenworth.com

**Alternate Point of Contact**

Luis Gonzalez, Building Official  
 700 US Hwy 2/PO Box 287  
 Leavenworth, WA 98826  
 509-548-5275  
 lgonzalez@cityofleavenworth.com

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 6-1.

**Table 6-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Maggie Boles	Community Development Director/Senior Planner
Lilith Vespier	Community Development Director (former)
Andi Zontek-Backstrum	CIP Manager/Deputy Public Works Director
Chantell Steiner	Finance Director
Luis Gonzalez	Building Official

### 6.2 JURISDICTION PROFILE

#### 6.2.1 Location and Features

Leavenworth is located on the eastern slopes of the Cascade Mountain Range in the upper reaches of the Wenatchee River Valley in Chelan County, Washington. Leavenworth is 118 miles east of Seattle and 22 miles northwest of Wenatchee on U.S. Highway 2. The City was incorporated on September 5, 1906.

Leavenworth has a “continental Mediterranean climate” with hot sunny summer days and chilly nights and cold snowy winters. The annual mean snowfall is 90.1 inches with the heaviest snowfall recorded in 1968-69 of 217.2 inches and the lightest snowfall recorded in 1962-63 of 19.4 inches. The wettest “rain year” has been from July 1955 to June 1956 with a total of 41.13 inches and the driest from July 1929 to June 1930 with 11.77 inches. The spring months see gradual warming and drying, though frosts remain frequent into April – over 168 mornings during an average year fall to or below freezing and the average last freeze is May 16. However, 2016 was the first year to record the “last frost” in March.

## 6.2.2 History

Leavenworth's history does not begin with the alpine tradition it knows today, but with the proud heritage of the Yakima, Chinook, and Wenatchi tribes. The Native American tribes lived by hunting the land for deer and elk, as well as fishing Icicle Creek for salmon. Surrounded by some of the most beautiful and bountiful lands in North America, the three tribes co-existed from Lake Wenatchee to the Icicle and beyond. The area was eventually settled by pioneers in search of gold, furs, and fertile farmland. Stakes were claimed, land was tracked, and the Leavenworth area was soon bustling with settlers.

By 1890, the original town was built on the Icicle Flats. It wasn't until the end of the century that the town began to blossom with the arrival of the rail line. The Great Northern Railway Company's tracks through Leavenworth brought with them opportunities for work, commerce, and a new economy. A sawmill and a healthy logging industry eventually fell apart when the Great Northern Railway Company pulled out of Leavenworth. The re-routing of the railroad and the subsequent closure of the sawmill sadly converted the town from a bustling, thriving hub of commerce into a hollow, empty community. For more than thirty years, Leavenworth lived on the brink of extinction.

But in the early 1960s, everything changed. In a last-chance effort to turn their precarious situation around, the leaders of the community decided to change Leavenworth's appearance, hoping to bring tourism into the area. Using the beautiful backdrop of the surrounding Alpine hills to their advantage, the town agreed to remodel their hamlet in the form of a Bavarian village. Hoping to create more than a mere facelift, the entire community rallied to create the illusion of Bavaria in the middle of Washington State. Besides the complete renovation of the downtown area, community members worked to begin a series of festivals. The Autumn Leaf Festival, Maifest, and the extremely popular Christmas Lighting Ceremony were the first of many attractions Leavenworth offered to passers-by. The new plan worked. Ever since the change to a Bavarian motif, Leavenworth has become a pillar of the tourism industry in the Pacific Northwest. Today, close to two million tourists come to Leavenworth each year, each visitor finding their own individual love affair with the community. The story is a landmark case of human spirit: The people of Leavenworth not only survived their most critical hour, they endured.

## 6.2.3 Governance

Leavenworth has a Mayor/City Council form of government. The City Council assumes responsibility for the adoption of this plan; the Mayor will oversee its implementation through the City Administrator.

## 6.3 CURRENT TRENDS

### 6.3.1 Population

As of April 1, 2024, the Washington State Office of Financial Management (OFM) estimated the City's population as 2,595. This estimate was based on the 2020 census data. This is a 14.6 percent increase from the population of 2,263 recorded during the 2020 census. Projected population in 2040 is 2,659, as noted in the City's Comprehensive Plan, Page 3.

### 6.3.2 Development

Anticipated future development trends for Leavenworth are moderately high, consisting primarily of residential growth, including single family, accessory dwelling, and multifamily development. Recent developments have included limited infill of historic lots and new subdivided lots, large multifamily developments (350+ units), and new commercial, including a large hotel. There has been a recent focus on providing more housing diversity, with allowances for ADUs, zero-lot line development, and duplexes in all residential zones and future considerations for cottage housing, triplexes and unit lot subdivision/condominiums. Future growth in the City will be managed as identified in the City’s 2021 Comprehensive Plan.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 6-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 6-2. Recent and Expected Development Trends**

Criterion		Response				
Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?		Yes				
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	11/13/2019 annexation of 5 vacant parcels; total area of roughly 35 acres					
Is your jurisdiction expected to annex any areas during the performance period of this plan?		No				
<i>If yes, describe land areas and dominant uses.</i>						
<i>If yes, who currently has permitting authority over these areas?</i>						
Are any areas targeted for development or major redevelopment in the next five years?		Yes				
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>	A 300-unit apartment complex began construction in 2024 and a 30 lot subdivision was recorded in April 2024. The entirety of the City of Leavenworth is located within the Wildland-Urban Interface. The properties proposed for future development are within the Intermix Zone.					
How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?		<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
	<b>Single Family</b>	22	26	32	14	7
	<b>Multi-Family</b>	5	1	1	0	0
	<b>Res Accessory</b>	14	1	0	3	2
	<b>Com Accessory</b>	0	1	6	1	0
	<b>Commercial</b>	1	1	1	0	0
	<b>Total</b>	42	30	40	18	9
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	<ul style="list-style-type: none"> <li>• Special Flood Hazard Areas: 0</li> <li>• Landslide: 0</li> <li>• High Liquefaction Areas: 0</li> <li>• Wildfire Risk Areas: 139</li> </ul>					

## 6.4 CAPABILITY ASSESSMENT

### 6.4.1 Existing Capabilities

The City of Leavenworth performed an assessment of its existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning and regulatory capabilities is presented in Table 6-3.
- Development and permitting capabilities are presented in Table 6-4.
- An assessment of fiscal capabilities is presented in Table 6-5.
- An assessment of administrative and technical capabilities is presented in Table 6-6.
- An assessment of education and outreach capabilities is presented in Table 6-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 6-8.
- Classifications under various community mitigation programs are presented in Table 6-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 6-10.

**Table 6-3. Planning and Regulatory Capability**

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>International Building and Residential Codes, LMC 15.04; adopted Ordinance 1506, August 25, 2015</i>			
<b>Zoning Code</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>LMC Title 18; adopted Ordinance 531, April 30, 1973</i>			
<b>Subdivisions</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>LMC Title 17; adopted Ordinance 1223, May 13, 2004</i>			
<b>Stormwater Management</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>Regional Stormwater Wetland Management Master Plan, adopted in 2017 by Resolution 06-2017; LMC Title 13; adopted Ordinance 876, February 26, 1991 – prohibited water drainage to go through city sewer; more specific stormwater regulations were adopted by Ordinance 1449, June 11, 2013</i>			
<b>Post-Disaster Recovery</b>	No	No	No	No
<b>Comment:</b>				
<b>Real Estate Disclosure</b>	No	No	No	No
<b>Comment:</b>				
<b>Growth Management</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>LMC Chapter 21.31; adopted Ordinance 1158, February 13, 2001</i>			
<b>Site Plan Review</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>LMC Title 21; adopted Ordinance 1008, August 25, 1998, repealed prior procedural review adopted under Ordinance 1016, April 23, 1996, which initially implemented GMA required uniform processing</i>			
<b>Environmental Protection</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>LMC Title 16; adopted Ordinance 1395, July 26, 2011</i>			



<b>Flood Damage Prevention</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>LMC Chapter 14.24; Adopted Ordinance 1692, May 2024 – amending Flood Regulations and Definitions as recommended by Ecology; adopted Ordinance 1222, March 9, 2004 – repealing Chapter 18.70 adopted Ordinance 600, February 14, 1978</i>			
<b>Emergency Management</b>	No	No	No	No
<b>Comment:</b>				
<b>Climate Change</b>	No	No	Yes	Yes
<b>Comment:</b>	<i>HB 1181 requires local comprehensive plan to include a climate element with a resilience sub-element – This will be included in the City’s 2026 update.</i>			
<b>Other</b>				
<b>Comment:</b>				
<b>Planning Documents</b>				
<b>Comprehensive Plan</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>Comprehensive Plan updated in 2021, Ordinance 1641; Comprehensive Plan adopted 2017, Ordinance 1559</i>			
<b>Capital Improvement Plan</b>	Yes	No	Yes	Yes
<b>How often is the plan updated?</b>	<i>Annually</i>			
<b>Comment:</b>	<i>Part of the Comprehensive Plan, Resolution 12-2018</i>			
<b>Disaster Debris Management Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Floodplain or Watershed Plan</b>	No	Yes	Yes	No
<b>Comment:</b>	<i>The County has a Watershed Plan for the region</i>			
<b>Stormwater Plan</b>	Yes	No	No	Yes
<b>Comment:</b>	<i>Regional Stormwater Wetland Management Master Plan, adopted in 2017 by Resolution 06-2017; LMC Title 13; adopted Ordinance 876, February 26, 1991 – prohibited water drainage to go through city sewer; more specific stormwater regulations were adopted by Ordinance 1449, June 11, 2013</i>			
<b>Urban Water Management Plan</b>	Yes	No	Yes	Yes
<b>Comment:</b>	<i>Water System Plan, Resolution 09-2018</i>			
<b>Habitat Conservation Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Economic Development Plan</b>	Yes	No	No	Yes
<b>Comment:</b>	<i>Part of the 2021 Comprehensive Plan, Ordinance 1641; Part of the 2017 Comprehensive Plan, Ordinance 1559</i>			
<b>Shoreline Management Plan</b>	Yes	Yes	Yes	Yes
<b>Comment:</b>	<i>Adopted final SMP document August 2021, Ordinance 1635; joint jurisdiction with Department of Ecology</i>			
<b>Community Wildfire Protection Plan</b>	No	No	No	Yes
<b>Comment:</b>	<i>The City may consider integration once a plan is developed; Wildland-Urban Interface Code Adopted</i>			
<b>Forest Management Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Climate Action Plan</b>	No	No	No	No
<b>Comment:</b>	<i>HB 1181 requires local comprehensive plan to include a climate element with a resilience sub-element – This will be included in the City’s 2026 update.</i>			

<b>Comprehensive Emergency Management Plan</b>	No	No	No	Yes
<i>Comment:</i>	<i>The City may consider integration once a plan is developed</i>			
<b>Threat and Hazard Identification and Risk Assessment</b>	No	No	No	No
<i>Comment:</i>				
<b>Post-Disaster Recovery Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Continuity of Operations Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Public Health Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Other</b>	No	No	No	No
<i>Comment:</i>				

**Table 6-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Yes
• If no, who does? If yes, which department?	Community Development
Does your jurisdiction have the ability to track permits by hazard area?	Yes – with modification to permit tracking system
Does your jurisdiction have a buildable lands inventory?	Yes – in process of updating

**Table 6-5. Fiscal Capability**

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No –(limitations)
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas, or Electric Service	Yes (water and sewer)
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes (not used)
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No (excluding connection fees)
Other	Local Improvement District

**Table 6-6. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development – Director, Senior Planner and Assistant Planner Public Works – CIP Manager/Deputy PW Director and Engineer on contract
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building Official and Inspector CIP Manager/Deputy PW Director and Engineer on contract
Planners or engineers with an understanding of natural hazards	Yes	CIP Manager/Deputy PW Director Engineer on contract
Staff with training in benefit/cost analysis	Yes	CIP Manager/Deputy PW Director
Surveyors	No	Surveyor on contract
Personnel skilled or trained in GIS applications	Yes	Community Development Director CIP Manager/Deputy PW Director
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Public Works Director
Grant writers	Yes	Various Staff depending on grant type

**Table 6-7. Education and Outreach Capability**

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Yes – Contracted web developer
Do you have hazard mitigation information available on your website?	Yes
• If yes, briefly describe.	Planning Page is on website – can be updated with final plan when available
Do you use social media for hazard mitigation education and outreach?	Yes
• If yes, briefly describe.	We can use our Facebook and Instagram pages for such notices
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
• If yes, briefly describe.	Public Safety Committee and RiverCom Board attendance
Do you have any other programs already in place that could be used to communicate hazard-related information?	No
• If yes, briefly describe.	
Do you have any established warning systems for hazard events?	No

<ul style="list-style-type: none"> <li>• If yes, briefly describe.</li> </ul>	<p>City has an agreement with Chelan County Emergency Management as the designated lead agency in the event of a disaster.</p>
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**Table 6-8. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	Community Development
Who is your floodplain administrator? (department/position)	Building Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2024 – Ordinance 1692 (development standards)
Does your jurisdiction have the latest effective Flood Insurance Rate Maps adopted?	Yes
<i>If no, state why. If yes, what is the effective date?</i>	July 2, 2002
Does your floodplain management program meet or exceed minimum requirements?	Meets
• If exceeds, in what ways?	
When was the most recent Community Assistance Visit or Community Assistance Contact?	Fall 2023
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
• If so, state what they are.	
Are any RiskMAP projects currently underway in your jurisdiction?	Yes
• If so, state what they are.	FEMA county-wide FIRM updates
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
• If no, state why.	Based on the BAS
Does your floodplain management staff need any assistance or training to support its floodplain management program?	None required
• If so, what type of assistance/training is needed?	
Does your jurisdiction participate in the Community Rating System (CRS)?	No
• If yes, is your jurisdiction interested in improving its CRS Classification?	
• If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup>	3
• What is the insurance in force?	\$1,010,000
• What is the premium in force?	\$2,682
How many total loss claims have been filed in your jurisdiction? <sup>a</sup>	5
• What were the total payments for losses?	\$87,000

**Description of how the City implements the substantial improvement/substantial damage provisions of their floodplain management ordinance after an event.**

Describe: During a flood event, city staff will perform a windshield survey to identify which structures are affected by flooding. After the event, all damaged structures within the floodplain will be required to obtain a flood permit for the proposed repairs and provide a contractor’s cost estimate. The cost will be compared to the market value of the structure prior to damage, starting with the assessed improvement value, if available, or an appraised value secured by the landowner. If the cost to repair the structure is greater than 50% of the structure value, the structure will need to be brought into compliance with current floodplain regulations.

a. According to FEMA statistics dated July 24, 2024

**Table 6-9. Community Classifications**

	Participating?	Classification	Date Classified
Community Rating System	No		
Building Code Effectiveness Grading Schedule	Yes	4	2023
Public Protection – ISO (from fire department)	Yes	5 (inside city limits)	September 2023
Storm Ready	No		Date
Firewise	No		

**Table 6-10. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	Low
<i>Comment:</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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>	
Participation in regional groups addressing climate risks	Low
<i>Comment:</i>	
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
<i>Comment:</i>	<i>Climate change will be included in the City’s 2026 Comprehensive Plan</i>
Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i>	

<b>Identified strategies for adaptation to impacts</b>	Low
<i>Comment:</i>	
<b>Champions for climate action in local government departments</b>	Low
<i>Comment:</i>	
<b>Political support for implementing climate change adaptation strategies</b>	Medium
<i>Comment:</i>	<i>The state requires a new Climate Change element and climate resiliency sub-element with the 2026 comprehensive plan update</i>
<b>Financial resources devoted to climate change adaptation</b>	Low
<i>Comment:</i>	
<b>Local authority over sectors likely to be negative impacted</b>	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
<b>Local residents’ knowledge of and understanding of climate risk</b>	Medium
<i>Comment:</i>	<i>The City’s Wildland-Urban Interface Code (LMC 15.06) includes a recommended checklist for City residents that includes home hardening and landscaping recommendations to improve resiliency of property in case of wildfire.</i>
<b>Local residents’ support of adaptation efforts</b>	Medium
<i>Comment:</i>	<i>Council adoption of the WUI Code and fire retrofit program have been supported by the community. Wildfire risk is a concern brought up by residence regularly at public meetings.</i>
<b>Local residents’ capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local economy current capacity to adapt to climate impacts</b>	Unsure
<i>Comment:</i>	
<b>Local ecosystem’s capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	

- 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.

### 6.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning, Regulatory, Development, and Permitting Capabilities

- Development of a Wildfire Protection Plan and Post-Disaster Recovery Plan is identified as an opportunity for expansion, specifically with regard to wildfire.
- Tracking permits by hazard area is not currently being done; however, permit tracking software can be updated to do so.
- The 2026 Comprehensive Plan update will include a new Climate Resiliency sub-element and the Hazard Mitigation Plan will be integrated.

### **Administrative and Technical Capabilities**

- The City is not large enough to staff a GIS specialist or a scientist familiar with natural hazards in the local area. The City may consider funding an on-call qualified professional to fill these roles in the future.

### **Fiscal Capabilities**

- It is likely the City will initiate a Development Impact Fee for homebuyers or developers to improve infrastructure. But this does not need to be added as a mitigation action in the plan.

### **Public Education and Awareness Capabilities**

- Community education and outreach is a priority within the city. Improvements to the City's website and the utilization of social media platform will be used to expand community awareness of hazard mitigation.

### **NFIP Capabilities**

- Based on the capability assessment, the City currently does not need to expand this capability.

## **6.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and 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. The progress reporting process described in Volume 1 will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### **6.5.1 Existing Integration**

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

- **2021 Comprehensive Plan** – The Comprehensive Plan identifies and addresses goals related to Geological hazards, fire hazards, flood controls and water protections.
- **Capital Improvement Plan** – Includes funding related to public services and identifies improvements to address deficiencies.
- **Building Codes** – The City has adopted International Building Code Appendix G – Flood-resistant construction Section 701 Tanks only; Appendix J Grading with amendments for higher protection with excavating and fill activities. International Fire Codes Appendix C requiring hydrants at 300' or as approved by the City; Appendix D with amendment to fire roads standards
- **Leavenworth Municipal Code**
  - **Wildland-Urban Interface (WUI) Code** – Adopted in 2021, this code establishes minimum regulations consistent with nationally recognized good practice for safeguarding life and property protection and to establish required construction materials, methods and planning associated with a structure's ability to withstand exposure to wildfire events.
  - **Zoning Code**– LMC Title 18, Zoning, includes development standards to promote public health, safety and general welfare.

- **Subdivision Code** – LMC Title 17, Subdivisions, includes fire protection and stormwater standards for new land divisions.
- **Environment** – LMC Title 16, Environment, identifies and protects people from hazards posed by critical areas, by supplementing the development requirements contained in the various chapters of the city code. These critical areas include: Geologically hazardous areas, frequently flooded areas, critical aquifer recharge areas, and wetlands.
- **Flood Damage Prevention** – LMC Title 14.24, Flood Damage Prevention Standards, includes development standards to protect human life and health, minimize expenditure of public money, minimize need for rescue and relief efforts associated with flooding, minimize damage to public facilities.
- **Water System Plan** – Includes requirements for fire flow and emergency response measures.
- **Shoreline Master Program** – Includes standards for protections of public and private properties from adverse effects of improper development in hazardous shoreline areas.
- **Regional Stormwater and Wetland Management Plan** – Protects water resources from impacts caused by development through stormwater drainage standards and also protects city roads and private property from the impacts of stormwater runoff from neighboring properties.

## 6.5.2 Opportunities for Future Integration

The capability assessment presented in this annex identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Capital Improvement Projects** – Future capital improvement projects may consider hazard mitigation potential as a means of evaluating project priority.
- **Comprehensive Plan** – Future amendment will consider climate change impacts; as well as direct review of known hazards and future land use designations.
- **Regulations – zoning code, development standards, building codes** – Future amendment may consider ways to incorporate hazard mitigation tools and recovery steps.
- **Pre- and Post-Disaster Plan** – Building on the hazard mitigation plan, consider planning for implementation of pre-disaster actions and post-disaster recovery.

## 6.6 RISK ASSESSMENT

### 6.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 6-11 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 hazard mitigation plan.



**Table 6-11. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Wildfire – Hatchery Complex	N/A	No	07/24/1994	City Evacuation, reduced water capacity, evacuation routes closed, economic stress, structures lost, trails destroyed, total costs over \$69 million
Snowstorm – “Snowmageddon”	N/A	No	01/07/2022	Road closures, structure damage, citizens “snowed in”
Severe storms, high wind, and flooding	1079	Yes	January 1996	Trail restoration
Volcanic Eruption – Mount St. Helens	623	Yes	May 1980	Ash removal
Landslide	N/A	No	1965	One fatality

### 6.6.2 Hazard Risk Ranking

Table 6-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 6-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	33	High
3	Earthquake	32	Medium
4	Drought	20	Medium
5	Flood	15	Low
6	Dam or Levee Failure	6	Low
7	Landslide	0	Low
8	Avalanche	0	Low

## 6.7 JURISDICTION-SPECIFIC VULNERABILITIES

Volume 1 of this hazard mitigation plan 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.

### ***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:

- Our city has limited ingress/egress with US 2 being the only way in and out for evacuation.

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

**6.8 STATUS OF PREVIOUS PLAN ACTIONS**

Table 6-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 6-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
L-1—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses. This may include a buy-out or raising of structures.	Carried over to updated plan	L-1
<i>Comment:</i> Adopted a fire retrofit program, with limited funding available to low-income homeowners to update roofs, siding, etc. to comply with the WUI code.		
L-2—Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the Comprehensive Plan.	Carried over to updated plan	L-2
<i>Comment:</i> Partially completed. Implemented WUI code into Comprehensive Plan and Zoning Code, see section 1.7.1.		
L-3—Implement public notification system – using the hazard mitigation survey, or other data, to determine best notification tools.	Carried over to updated plan	L-3
<i>Comment:</i> Current program		
L-4—Adopt regulations requiring fire resistant roofs on structures in wildland interface zones.	Completed	N/A
<i>Comment:</i> Adopted WUI Code effective December 1, 2021.		
L-5—Coordinate with Washington State Department of Transportation and other agencies to designate alternate evacuation routes, including but not limited to connections between Titus Road and Chumstick Highway.	Carried over to updated plan	L-4
<i>Comment:</i> This action item is in progress. The future road, “Autumn Strasse” is being partially developed with the multifamily development of Autumn Haus Apartments, with permits to be issued in 2024.		
L-6—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.	Carried over to updated plan	L-5
<i>Comment:</i> Current program		

<p><b>L-7—Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:</b></p> <ul style="list-style-type: none"> <li>• Enforce the flood damage prevention ordinance.</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/information on floodplain requirements and impacts.</li> </ul>	<p>Carried over to updated plan</p>	<p>L-6</p>
<p><i>Comment:</i> Participating in updates; will consider with UGA analysis</p>		
<p><b>L-8—Multi-hazard Mitigation – Identify and stock emergency shelters</b></p>	<p>Carried over to updated plan</p>	<p>L-7</p>
<p><i>Comment:</i> Added emergency shelters to the District Use Chart and definitions in the municipal code. Identified the Festhalle as a potential emergency shelter</p>		
<p><b>L-9—Multi-hazard Mitigation – Schedule and implement Emergency Response Planning, including table-top exercises</b></p>	<p>Carried over to updated plan</p>	<p>L-8</p>
<p><i>Comment:</i> Current program</p>		
<p><b>L-10—Multi-hazard Mitigation – Public Education/Community Preparedness – self-reliance for three days following a disaster</b></p>	<p>Carried over to updated plan</p>	<p>L-9</p>
<p><i>Comment:</i> Mayor is leading coordination program which includes public education</p>		
<p><b>L-11—Identify and pursue strategies to increase adaptive capacity to climate change</b></p>	<p>Carried over to updated plan</p>	<p>L-10</p>
<p><i>Comment:</i> Ongoing work with Chelan County; Climate Resiliency to be addressed in 2026 Comprehensive Plan update.</p>		
<p><b>L-12—Coordinate methods of sharing building plans and construction information with Emergency Management and Fire District.</b></p>	<p>Carried over to updated plan</p>	<p>L-11</p>
<p><i>Comment:</i> Implemented PermitTrax software file management program in 2020: Purchased large format scanner for digitizing old plans; Began utilizing Bluebeam software in 2024 for electronic plan review of all building plans. Fire District #3 has access to all available digitized plans in PermitTrax, indexed by site address.</p>		
<p><b>L-13—Purchase generators for all critical facilities and infrastructure that lack adequate back-up power.</b></p>	<p>Carried over to updated plan</p>	<p>L-12</p>
<p><i>Comment:</i> Applied for and received grant</p>		
<p><b>L-14—Purchase protection hardware (such as sprinklers, snow breaks, tie-downs) for all critical facilities and infrastructure.</b></p>	<p>Carried over to updated plan</p>	<p>L-13</p>
<p><i>Comment:</i> no action</p>		
<p><b>L-15—Participate in programs such as Firewise, StormReady, and the Community Rating System.</b></p>	<p>Carried over to updated plan</p>	<p>L-14</p>
<p><i>Comment:</i> Reviewed Firewise with several interested community members; no program established.</p>		

## 6.9 HAZARD MITIGATION ACTION PLAN

Table 6-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 6-15 identifies the priority for each action. Table 6-16 summarizes the mitigation actions by hazard of concern and mitigation type. The complete mitigation sheets are on file with the City.

**Table 6-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action L-1</b> — Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses. This may include a buy-out or raising of structures.							
<b>Hazards Mitigated:</b> Flood							
New and Existing	3, 4, 5, 6, 10	1	Community Development	Fire District #3, Ecology	Moderate	BRIC, HMGP, HMGP Post-Fire, Staff Time, City of Leavenworth	Short-Term
<b>Action L-2</b> — Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the Comprehensive Plan.							
<b>Hazards Mitigated:</b> Avalanche, Dam Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 3, 5, 6, 7, 10, 11	1, 2, 3, 4, 5, 6	Community Development	Public Works, Fire District #3	High	HMGP, Staff Time	Short-Term
<b>Action L-3</b> — Implement public notification system – using the hazard mitigation survey, or other data, to determine best notification tools.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Not applicable	1, 6, 11	4, 5	Chelan County Sheriff/EMS	City Communications/PIO	High	HMGP	Short-Term
<b>Action L-4</b> —Coordinate with Washington State Department of Transportation and other agencies to designate alternate evacuation routes, including but not limited to connections between Titus Road and Chumstick Highway.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Not applicable	1, 8	1, 4, 5	Community Development	Public Works, Fire District #3, Chelan County EMS	Very High	Staff Time, District CIP Budget	Short-Term
<b>Action L-5</b> — Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire							

New and Existing	2, 4, 5, 6, 7, 8, 9, 10, 11	1, 2, 3, 4, 5, 6	Community Development	Public Works, Fire District #3, Chelan County EMS	Moderate	BRIC, HMGP, FMA, HMGP Post-Fire, Staff Time	Short-Term
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**Action L-6**— Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements: • Enforce the flood damage prevention ordinance. • Participate in floodplain identification and mapping updates. • Provide public assistance/information on floodplain requirements and impacts.

**Hazards Mitigated:** Flood

New and Existing	2, 6, 7, 11	1, 3, 5	Community Development	FEMA, Ecology	Moderate	BRIC, HMGP, FMA, Staff Time	Short-Term
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**Action L-7**— Multi-hazard Mitigation – Identify and stock emergency shelters.

**Hazards Mitigated:** Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire

Not Applicable	1, 8, 11	4, 5	Community Development	Public Works, Fire District #3, Chelan County EMS, Cascade School District	Moderate	HMGP, Staff Time	Short-Term
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**Action L-8**— Multi-hazard Mitigation – Schedule and implement Emergency Response Planning, including table-top exercises.

**Hazards Mitigated:** Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire

Not Applicable	1, 2, 6, 8, 9	1, 2, 4, 5, 6	Chelan County Sheriff/EMS	City Community Development, Public Works, Fire District #3, Chelan County EMS, Cascade Medical	Very High	HMGP, Staff Time	Short-Term
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**Action L-9**— Multi-hazard Mitigation – Public Education/Community Preparedness – self-reliance for three days following a disaster.

**Hazards Mitigated:** Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire

Not Applicable	2, 4, 8, 9, 11	1, 2, 4, 5, 6	Chelan County Sheriff/EMS	City Community Development, Public Works, and Communications, Fire District #3, Chelan County EMS, Cascade Medical, Cascade School District	Very High	HMGP, Staff Time	Long-Term
<b>Action L-10</b> — Identify and pursue strategies to increase adaptive capacity to climate change.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Not Applicable	3, 6, 7, 9, 10	1, 2, 3, 5	Community Development	Public Works, Fire District #3, Chelan County EMS	Very High	HMGP, Staff Time, State Funding (Grants)	Short-Term
<b>Action L-11</b> — Coordinate methods of sharing building plans and construction information with Emergency Management and Fire District.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Not Applicable	2, 4, 7, 8	1, 2, 4	Community Development	Fire District #3, Chelan County EMS	Moderate	HMGP, Staff Time	Long-Term
<b>Action L-12</b> — Purchase generators for all critical facilities and infrastructure that lack adequate back-up power.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 3, 4, 6, 11	1, 2, 3, 4	Public Works		Very High	HMGP, Staff Time	Long-Term
<b>Action L-13</b> — Purchase protection hardware (such as sprinklers, snow breaks, tie-downs) for all critical facilities and infrastructure.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Existing	2, 3, 4, 6, 7	1, 2	Public Works	Community Development	Very High	HMGP, FMA, HMGP Post-Fire	Long-Term
<b>Action L-14</b> — Participate in programs such as Firewise, StormReady, and the Community Rating System.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	3, 4, 5, 6, 7, 8, 10, 11	1, 2, 3, 4, 5, 6	Community Development	Public Works, Fire District #3, Chelan County EMS	High	HMGP, FMA, HMGP Post-Fire, Staff Time	Long-Term

Acronyms used here are defined at the beginning of this volume.

**Table 6-15. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
L-1	3	3	3	3	3	3	1	0	3	3	3	1	1	3	3	36	High
L-2	3	3	3	3	3	3	3	0	3	3	3	3	3	3	3	42	High
L-3	3	1	3	3	3	0	1	0	0	3	3	3	1	3	3	30	Medium
L-4	3	0	3	3	3	0	1	0	0	3	1	3	1	3	3	27	Medium
L-5	3	3	3	3	3	3	1	0	3	3	3	3	3	3	3	40	High
L-6	3	0	3	3	3	0	1	0	1	3	1	0	1	3	3	25	Medium
L-7	3	0	3	3	3	0	1	0	1	3	1	3	1	3	3	28	Medium
L-8	3	1	3	3	3	1	1	0	3	3	1	3	1	3	3	32	High
L-9	3	0	3	3	3	1	1	0	1	3	1	3	1	3	3	29	Medium
L-10	3	3	3	3	3	1	3	1	3	3	1	3	3	3	3	39	High
L-11	3	1	3	3	3	0	0	0	1	3	1	3	0	3	3	27	Medium
L-12	3	3	3	3	3	1	3	0	1	3	1	3	1	3	3	34	High
L-13	3	3	1	1	3	0	1	0	3	0	1	3	0	3	3	25	Medium
L-14	3	3	3	3	3	1	1	1	3	3	1	3	1	3	3	35	High

**Table 6-16. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazards		Medium-Ranked Hazard		Low-Ranked Hazard			
		Wildfire	Severe Weather	Earthquake	Drought	Flood	Dam or Levee Failure	Landslide	Avalanche
L-1	Prevention, Property Protection					●			
L-2	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●
L-3	Emergency Services	●	●	●	●	●	●	●	●
L-4	Prevention, Emergency Services	●	●	●		●	●	●	●
L-5	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●		●	●	●	●
L-6	Prevention, Property Protection, Emergency Services, Climate Resilience					●			
L-7	Emergency Services	●	●	●	●	●	●	●	●
L-8	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services	●	●	●	●	●	●	●	●
L-9	Prevention, Emergency Services	●	●	●	●	●	●	●	●
L-10	Prevention, Property Protection, Natural Resource Protection	●	●	●	●	●	●	●	●
L-11	Property Protection, Public Education and Awareness, Emergency Services	●	●	●		●	●	●	●
L-12	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●



<b>L-13</b>	Prevention, Property Protection, Public Education and Awareness, Community Capacity Building	●	●	●	●	●	●	●	●
<b>L-14</b>	Prevention, Property Protection, Public Education and Awareness, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●

## 6.10 PUBLIC OUTREACH

Table 6-17 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 6-17.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
Community Engagement Night	Quarterly	100+
Website: cityofleavenworth.com	Ongoing	varies
Social Media: Facebook and Instagram	Ongoing	varies
Community Block Party	Annually	100+

## 6.11 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **City of Leavenworth Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Leavenworth Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- **City of Leavenworth Comprehensive Plan**—The Comprehensive Plan was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Leavenworth Regional Stormwater and Wetland Management Plan** —The plan was reviewed for the full capability assessment.
- **City of Leavenworth Water System Plan**—The plan was reviewed for the full capability assessment.
- **City of Leavenworth Shoreline Master Program**—The SMP was reviewed for the full capability assessment.

The following outside resources and references were reviewed:

- **Leavenworth Echo** (digital edition), August 12, 2024, Reflecting on an inferno: 30 years since the devastating 1994 fires surrounded and threatened Leavenworth, by Caroline Menna
- **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.
- **Chelan County Fire District #3 Pumping Capacity - For all Fire Apparatus Document**—Reviewed for Community Classification information.
- **2024 WCIA Insurance Coverage Summary – City of Leavenworth**—Reviewed for National Flood Insurance Program Compliance.

## 6.12 HAZARD MAPS

Hazard maps for the City of Leavenworth are provided on the following pages.



## 7. CITY OF WENATCHEE

### 7.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Jessica Shaw, Deputy Public Works Director  
 301 Yakima Avenue  
 Wenatchee, WA 98801  
 (509) 888-3225  
 jshaw@wenatcheewa.gov

**Alternate Point of Contact**

Stephen Neuenschwander, Assistant Director  
 Community Development  
 301 Yakima Avenue  
 Wenatchee, WA 98801  
 (509) 888-3285  
 sneuenschwander@wenatcheewa.gov

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 7-1.

**Table 7-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Jessica Shaw	Deputy Public Works Director
Stephen Neuenschwander	Assistant Director, Community Development

### 7.2 JURISDICTION PROFILE

#### 7.2.1 Location and Features

Situated in a fertile valley in Central Washington at the confluence of the Wenatchee and Columbia Rivers, Wenatchee is the second most populous city in the central part of the state and serves as the Chelan County seat. To the south and west, mountains provide a dramatic backdrop for the City. The City’s total area is 10.66 square miles.

Wenatchee experiences a semi-arid climate with cold winters and hot, dry summers; nestled in the rain shadow of the Cascade Mountains, there are blue skies 300 days of the year.

#### 7.2.2 History

For thousands of years before Euro-American settlement, the area was inhabited by indigenous peoples who lived on the land. The Wenatchee were a nomadic culture and were closely bound to nature. They subsisted on salmon, roots, berries and nuts and interacted with other tribes.

The considerable amount of picturesque land available slowly attracted newcomers to the area. Beginning in about 1811, prior to permanent white settlement, nomadic fur traders of the British Northwest Fur Company (which later became part of the Hudson’s Bay Company) traveled through the upper Columbia River region, plying the waters of the great river and exploring the rugged wilderness for fur trapping and trading

opportunities. The first non-Native American settlers were gold prospectors, Chinese miners, cattlemen, and missionaries.

The first “business house” was established in about 1867 by two men named Ingram and McBride. They operated a trading post in what is now Rock Island and conducted trading with the Indians. Other small businesses and a hotel soon followed.

Wenatchee’s population was 108 in May of 1891. By January of 1892, the population had increased to 300. The year 1892 was of great significance because of the Great Northern Railway’s decision to build its train depot about one mile south of Wenatchee, thus creating a new town. The City of Wenatchee was incorporated on January 7, 1893.

Although located as a mid-point between Spokane and Seattle, the Wenatchee Valley was largely inaccessible because it is surrounded by mountains. Despite topographical limitations, the City’s great potential as a productive agricultural region and business center did not go unnoticed. With this vision in mind, a group of Seattle businessman formed the Wenatchee Improvement Company in December 1890 to acquire property and build a town.

The Great Northern Railway would eventually help spur development of new towns and provide important transcontinental service for many communities along its vast route through the upper Midwest, northern Great Plains, and the Pacific Northwest. In early 1892, the Wenatchee Development Company, in close consultation with the Great Northern Railway, surveyed and platted the present site of Wenatchee. On May 6, 1892, this plat was filed with Kittitas County (Chelan County had not yet been created), and lots were placed on the open market the same month. Within five days, \$100,000 worth of property was sold.

By the late 1890s, Wenatchee was growing considerably and the need for a new county became clear. Ellensburg was the Kittitas County seat but was separated from the Wenatchee Valley by a range of mountains. It proved inaccessible during the winter except via Spokane or Seattle by railroad, making it difficult for Wenatchee citizens to make the trek to Ellensburg for business purposes. The state legislature created Chelan County in 1899, carving it out of the existing Kittitas and Okanogan Counties.

By the late 1890s, the stage was set for Wenatchee’s economic and population boom. The Wenatchee Valley’s arid climate, rich volcanic soil, and proximity to the Columbia and Wenatchee Rivers proved to be an excellent combination for agricultural success.

Within a few years, the Valley was covered with row upon row of young fruit trees. Apples were shipped to all parts of the world, and more and more people, learning of ‘the valley of the apples,’ came here to stay. Within 25 years, Wenatchee became the center of the greatest apple-producing region in the world.

### **7.2.3 Governance**

The City of Wenatchee is led by an elected Mayor and City Council. The Mayor’s Office includes the Mayor, City Administrator, City Clerk, and Administrative Assistant.

Serving as the highest elected official in the municipal government, the Mayor holds administrative authority, including veto power. As such, the Mayor provides the necessary leadership and direction to implement the goals and strategies of the City.

### 7.3 CURRENT TRENDS

#### 7.3.1 Population

Wenatchee’s 2023 population was 35,850, an increase of 886 people, or 2.5%, since 2019.

##### Vulnerable Population

The estimated number of people claiming an ethnicity of “Hispanic or Latino (of any race)” was 11,576 during the 2015-2019 period and 11,906 for the 2018-2022 period, a 2.8% increase.

The estimated population age 5 and over that “Speak English less than “very well”” was 3,874 during the 2015-2019 period and 3,381 during the 2018-2022 period, a 12.7% decrease.

Of the population for whom poverty status is determined, the estimated population below the poverty level was 4,727 during the 2015-2019 period and 4,096 during the 2018-2022 period, a 13.3% decrease. The estimated population that was 65-years and over was 5,600 in the 2015-2019 period and 6,241 in the 2018-2022 period, a 11.4% increase.

The number of people with one or more disabilities was 5,644 during the 2015-2019 period and 6,360 during the 2018-2022 period, a 12.7% increase.

Source: US Census Bureau’s American Community Survey 5-year estimates for the City of Wenatchee.

#### 7.3.2 Development

The city is focused on providing opportunities for housing throughout the community. New development is primarily in the foothills. Redevelopment and infill with accessory dwelling units are anticipated to be more common in the future.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 7-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 7-2. Recent and Expected Development Trends**

Criterion	Response
Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?	Yes
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	The area annexed since January 1, 2019, is 403.82 acres. The sum of the parcels annexed, at the time of each annexation, is 54.
Is your jurisdiction expected to annex any areas during the performance period of this plan?	No

<i>If yes, describe land areas and dominant uses.</i>						
<i>If yes, who currently has permitting authority over these areas?</i>						
Are any areas targeted for development or major redevelopment in the next five years?						No
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>						
How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?		2019	2020	2021	2022	2023
	Single Family	47	32	48	20	23
	Multi-Family	4	11	14	14	0
	Other	15	12	20	11	4
	Total	66	55	82	45	27
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	<ul style="list-style-type: none"> <li>• Special Flood Hazard Areas: N/A</li> <li>• Landslide: N/A</li> <li>• High Liquefaction Areas: N/A</li> <li>• Wildfire Risk Areas: N/A</li> <li>• Development in the foothills adjacent to the City has increased since the last plan update. Several subdivisions located within the Wildland Urban Interface have been approved. The City consistently implements the WUI code requirements to reduce the potential impact.</li> </ul>					

## 7.4 CAPABILITY ASSESSMENT

### 7.4.1 Existing Capabilities

City of Wenatchee has performed an inventory and analysis of existing capabilities, plans, programs and policies that enhance its ability to implement mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning and regulatory capabilities is presented in Table 7-3.
- Development and permitting capabilities are presented in Table 7-4.
- An assessment of fiscal capabilities is presented in Table 7-5.
- An assessment of administrative and technical capabilities is presented in Table 7-6.
- An assessment of education and outreach capabilities is presented in Table 7-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 7-8.
- Classifications under various community mitigation programs are presented in Table 7-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 7-10.

**Table 7-3. Planning and Regulatory Capability**

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, and Requirements</b>				
<b>Building Code</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Wenatchee City Code Chapter 2.04 Building Code and other referenced codes.			
<b>Zoning Code</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Wenatchee City Code Title 10 Zoning			

<b>Subdivisions</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Wenatchee City Code Title 11 Subdivisions			
<b>Stormwater Management</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Wenatchee City Code 4.08 and Title 9 Public Services.			
<b>Post-Disaster Recovery</b>	No	Yes	No	Yes
<b>Comment:</b>	State and FEMA			
<b>Real Estate Disclosure</b>	No	No	No	No
<b>Comment:</b>				
<b>Growth Management</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Wenatchee City Code Chapter 10.04.005 Authority and title			
<b>Site Plan Review</b>	Yes	No	No	Yes
<b>Comment:</b>	Wenatchee City Code Title 2 Buildings; Title 10 Zoning; Title 11 Subdivisions; Title 12 Environmental Protection			
<b>Environmental Protection</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Wenatchee City Code Title 12 Environmental Protection			
<b>Flood Damage Prevention</b>	Yes	Yes	Yes	Yes
<b>Comment:</b>	FLOOD HAZARD PREVENTION City of Wenatchee Code Chapter 2.05			
<b>Emergency Management</b>	Yes	Yes	No	Yes
<b>Comment:</b>	EMERGENCY MANAGEMENT ORGANIZATION (Ord. 2000-18 § 1) Director Ord. 2015-14 § 1; Ord. 2000-18 § 2 The emergency management organization shall have all powers granted under Chapter 38.52 RCW as now or hereafter amended and as may otherwise be provided by law. Ord. 2000-18 § 3			
<b>Climate Change</b>	No	No	No	No
<b>Comment:</b>				
<b>Planning Documents</b>				
<b>General Plan</b>	Yes	No	Yes	Yes
<b>Comment:</b>	Amendments adopted annually			
<b>Capital Improvement Plan</b>	Yes	No	Yes	Yes
<b>How often is the plan updated?</b>	Yearly			
<b>Comment:</b>	Amendments adopted annually			
<b>Disaster Debris Management Plan</b>	No	No	No	No
<b>Comment:</b>				
<b>Floodplain or Watershed Plan</b>	Yes	Yes	No	Yes
<b>Comment:</b>	WCC Chap. 2.05 Flood Hazard Prevention Ordinance, Chelan County Flood Hazard Management Plan			
<b>Stormwater Plan</b>	Yes	No	No	Yes
<b>Comment:</b>				
<b>Urban Water Management Plan</b>	Yes	No	Yes	Yes
<b>Comment:</b>	City of Wenatchee Water System Plan			
<b>Habitat Conservation Plan</b>	Yes	No	Yes	Yes
<b>Comment:</b>				
<b>Economic Development Plan</b>	No	No	No	No
<b>Comment:</b>				



<b>Shoreline Management Plan</b>	Yes	No	Yes	Yes
<i>Comment:</i>	See adopted City of Wenatchee Shoreline Management Plan			
<b>Community Wildfire Protection Plan</b>	Yes	Yes	No	Yes
<i>Comment:</i>	Wenatchee City Code Chapter 3.36 Wildland-Urban Interface Standards			
<b>Forest Management Plan</b>	No	No	No	NO
<i>Comment:</i>	City of Wenatchee is not in a forest environment.			
<b>Climate Action Plan</b>	No	No	No	No
<i>Comment:</i>				
<b>Comprehensive Emergency Management Plan</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County Plan			
<b>Threat and Hazard Identification and Risk Assessment</b>	Yes	Yes	Yes	Yes
<i>Comment:</i>	Chelan County Assessment			
<b>Post-Disaster Recovery Plan</b>	No	No	No	Yes
<i>Comment:</i>				
<b>Continuity of Operations Plan</b>	No	No	No	Yes
<i>Comment:</i>				
<b>Public Health Plan</b>	No	No	No	No
<i>Comment:</i>				

**Table 7-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Yes
• If no, who does? If yes, which department?	Community Development
Does your jurisdiction have the ability to track permits by hazard area?	No, could work toward having this capability with GIS
Does your jurisdiction have a buildable lands inventory?	Yes

**Table 7-5. Fiscal Capability**

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, Water, Sewer, and Stormwater
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
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	Yes

**Table 7-6. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development Director
Engineers or professionals trained in building or infrastructure construction practices	Yes	City Engineer
Planners or engineers with an understanding of natural hazards	Yes	Community Development Director
Staff with training in benefit/cost analysis	Yes	Contract Support
Surveyors	Yes	Contract Support
Personnel skilled or trained in GIS applications	Yes	GIS Staff
Scientist familiar with natural hazards in local area	Yes	Contract Support
Emergency manager	Yes	Contract with Chelan County Emergency Management Department
Grant writers	Yes	Community Development Director, Utility Planner
Other	No	

**Table 7-7. Education and Outreach Capability**

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Contract Support
Do you have hazard mitigation information available on your website?	Yes
• If yes, briefly describe.	Canyon drain flooding
Do you use social media for hazard mitigation education and outreach?	No
• If yes, briefly describe.	N/A
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
• If yes, briefly describe.	Chelan County Flood Control Zone District Plan
Do you have any other programs already in place that could be used to communicate hazard-related information?	Yes
• If yes, briefly describe.	Utility programs and Code Enforcement
Do you have any established warning systems for hazard events?	Yes
• If yes, briefly describe.	Chelan County Emergency Management

**Table 7-8. National Flood Insurance Program Compliance**

Criterion	Response
What local department is responsible for floodplain management?	City of Wenatchee
Who is your floodplain administrator? (department/position)	Building and Fire Code Official
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 jurisdiction have the latest effective Flood Insurance Rate Maps adopted?	Yes
<i>If no, state why. If yes, what is the effective date?</i>	1/6/1994
Does your floodplain management program meet or exceed minimum requirements?	Meets
• If exceeds, in what ways?	N/A
When was the most recent Community Assistance Visit or Community Assistance Contact?	2016
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
• If so, state what they are.	N/A
Are any RiskMAP projects currently underway in your jurisdiction?	Yes
• If so, state what they are.	FEMA is studying Flood Zones currently
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
• If no, state why.	N/A
Does your floodplain management staff need any assistance or training to support its floodplain management program?	No
• If so, what type of assistance/training is needed?	N/A
Does your jurisdiction participate in the Community Rating System (CRS)?	No
• If yes, is your jurisdiction interested in improving its CRS Classification?	No
• If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup>	221
• What is the insurance in force?	\$57,807,000
• What is the premium in force?	\$280,358
How many total loss claims have been filed in your jurisdiction? <sup>a</sup>	35
• What were the total payments for losses?	\$42,973
<b>Description of how the City implements the substantial improvement/substantial damage provisions of their floodplain management ordinance after an event.</b> Describe: During a flood event, city staff or contracted support will perform a windshield survey to identify which structures are affected by flooding. After the event, all damaged structures within the floodplain will be required to obtain a flood permit for the proposed repairs and provide a contractor’s cost estimate. The cost will be compared to the market value of the structure prior to damage, starting with the assessed improvement value, if available, or an appraised value secured by the landowner. If the cost to repair the structure is greater than 50% of the structure value, the structure will need to be brought into compliance with current floodplain regulations.	

a. According to FEMA statistics as of July 24, 2024

**Table 7-9. Community Classifications**

	Participating?	Classification	Date Classified
Community Rating System	No		
Building Code Effectiveness Grading Schedule	No		
Public Protection	No		
StormReady	No		
Firewise	No		

**Table 7-10. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts <i>Comment:</i>	Low
Jurisdiction-level monitoring of climate change impacts <i>Comment:</i>	Low
Technical resources to assess proposed strategies for feasibility and externalities <i>Comment:</i>	Low
Jurisdiction-level capacity for development of greenhouse gas emissions inventory <i>Comment:</i>	Low
Capital planning and land use decisions informed by potential climate impacts <i>Comment:</i>	Low
Participation in regional groups addressing climate risks <i>Comment:</i>	Low
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes <i>Comment:</i> Resolution 2010-44 Greenhouse Gas Reduction Policy	Medium
Identified strategies for greenhouse gas mitigation efforts <i>Comment:</i>	Low
Identified strategies for adaptation to impacts <i>Comment:</i>	Low
Champions for climate action in local government departments <i>Comment:</i>	Low
Political support for implementing climate change adaptation strategies <i>Comment:</i>	Low
Financial resources devoted to climate change adaptation <i>Comment:</i>	Low
Local authority over sectors likely to be negative impacted <i>Comment:</i>	Low
<b>Public Capacity</b>	
Local residents' knowledge of and understanding of climate risk <i>Comment:</i>	Low

<b>Local residents’ support of adaptation efforts</b>	Low
<i>Comment:</i>	
<b>Local residents’ capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local economy current capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local ecosystem’s capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	

- 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.

### 7.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### **Planning, Regulatory, Development, and Permitting Capabilities**

The City has identified a need to develop a Disaster Debris Management Plan. The City is required to review and update its comprehensive plan by June 2026. As a component of this plan update, the City is required to include a climate change element and resiliency sub-element. Following the adoption of the plan update, the City will initiate a process to update critical area regulations. By 2029, the City will also review and update the Shoreline Master Program. Associated with these plan updates, the City will also review its development regulations to ensure the plan and regulations are consistent with each other.

#### **Administrative and Technical Capabilities**

The capability assessment did not identify a need to expand on this capability.

#### **Fiscal Capabilities**

The capability assessment did not identify a need to expand on this capability.

#### **Public Education and Awareness Capabilities**

The capability assessment did not identify a need to expand on this capability.

#### **NFIP Capabilities**

The capability assessment did not identify a need to expand on this capability.

## 7.5 INTEGRATION WITH OTHER PLANNING INITIATIVES

The information on hazards, risk, vulnerability and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### 7.5.1 Existing Integration

In the performance period since adoption of the previous hazard mitigation plan, City of Wenatchee made progress on integrating hazard mitigation goals, objectives and actions into other planning initiatives. The following plans and programs currently integrate components of the hazard mitigation strategy:

- **Capital Improvement Plan**—The capital improvement plan includes projects can help mitigate potential hazards. The City will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- **Building Code and Other Reference Codes**—The City of Wenatchee utilizes Chapter 2.04 in the City of Wenatchee’s Municipal Code that referenced all the adopted building codes with incorporated local modifications to account for the climatic, topographic and geographic conditions that exist in the City.

### 7.5.2 Opportunities for Future Integration

As this hazard mitigation plan is implemented, City of Wenatchee will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan in actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

#### **Wenatchee Urban Area Comprehensive Plan**

The City of Wenatchee Comprehensive Plan is the governing document providing guidance and direction to City Government in its actions and implementation of principles for community development. People often associate community development with increases in population and the expansion of municipal boundaries. The City of Wenatchee’s Comprehensive Plan does specifically address population growth, but of equal importance it addresses improvements to the community in terms of quality of life. The City of Wenatchee’s approach to community development is to reach across the entire community to look at social and economic issues, historical assets, cultural values, the sustainability of the community, condition of housing, and impacts to neighborhoods including infrastructure, community facilities, transportation networks, and safety, among others.

Since Wenatchee does not have great expanses of land to grow outward, much of the focus of the plan is to address improvements of what we have. We see this land area constraint as both a challenge and opportunity as Wenatchee has unique values that make our city a special place to those who do business here and to those who call it home.

In 2016-2017, the Comprehensive Plan went through a major update that was adopted in 2017 as required by the Growth Management Act. The plan, however, is a living document and may be updated with minor edits annually. The next major plan review and update is due in 2026. We welcome input and participation regarding all of our adopted plans. The 2026 update will include a climate change element and resiliency sub-element.

### **Comprehensive Stormwater Plan**

The City of Wenatchee has proactively addressed stormwater runoff in the urban area for decades. Some of the first stormwater mains were installed over 70 years ago. Today the stormwater conveyance system stretches across the city and includes thousands of catch basins and close to seventy-five miles of pipe. In 1994, the City established a stormwater utility to protect property, provide urban flood control, and fund maintenance and improvements to the stormwater system. A Stormwater Management Plan was completed in 2000 to plan for future development and growth. Since 2000, the City has made significant improvements throughout the stormwater system. New developments have also added stormwater infrastructure as the city has grown west up the hills and canyons. In addition, regulations have changed, thus increasing the level of administration, maintenance, and treatment requirements for stormwater. The current Comprehensive Stormwater Plan adopted in 2020 includes planning and engineering strategies to meet stormwater capacity for the next 10 years as well as upcoming water quality requirements.

### **Water System Plan (Urban Water Management)**

This Water System Plan (WSP) is separated into two volumes. Volume 1 describes the City of Wenatchee distribution system within its service area. Volume 2 describes the Regional Water System wholesale supply and transmission system, which provides water to the City, Public Utility District No. 1 of Chelan County (PUD), and the East Wenatchee Water District (EWWD). The City's domestic water system serves approximately 28,000 people within 3,200 acres. The service area population is estimated to increase to 37,000 people in 50 years. The City's water system provides service to approximately 80 percent of the population within the City limits. The other 20 percent is served by the PUD. The City's service area adjoins that of the PUD and is not expected to change in the foreseeable future. Growth in the service area occur on a small amount of remaining undeveloped land (3 percent of the service area), and redevelopment of occupied land to high density residential use.

The City's WSP provides an in-depth evaluation of the City's supply and distribution systems to determine improvements that are necessary to meet the water system demands in the service area. The improvements are intended to provide the level of service required by the City's *Comprehensive Land Use Plan* prepared in accordance with the requirements of the Growth Management Act (GMA), and to meet the State mandate that municipal water systems supply adequate, safe, and reliable water to their customers. The WSP evaluation has the following broad objectives; supply, storage, distribution, water quality, system operation and maintenance, financial capacity, design and construction standards.

### **Sewer Comprehensive Plan**

The Sewer Comprehensive Plan for the City of Wenatchee (City) addresses the City's planning needs for wastewater collection, transmission, treatment, and disposal for the 20-year planning period. The 2017 Plan was prepared in accordance with the provisions of the Revised Code of Washington (RCW) Section 90.48, Water Pollution Control, Washington Administrative Code (WAC) Section 173-240-050, General Sewer Plan, and WAC 173-240-060, Engineering Report. The 2017 Plan provides proposed conceptual designs, cost estimates, a schedule, and a financing plan for recommended major system improvements.

### **Wastewater Treatment Plant Facilities Plan**

The primary purposes of this plan are to update the facility flow and loading projections that correlate to more recent data collected following the recent upgrades to the wastewater treatment facility that included a new

Screenings Building; Evaluate facility unit process capacity and to show that adequate capacity exists to treat the projected influent flows and loads through the planning period; and Recommend process improvements to provide for needed process unit redundancy and to assure capacity is available for future wastewater flows. The planning period for the plan is years 2022 through 2042 (20 years).

**Capital Facilities Plan**

The Capital Facilities Plan provides a comprehensive project list and schedule guiding the investment of City resources in infrastructure. These resources are made up of local revenues as well as State and Federal grants. The CFP identifies those projects which have secured funding as well as a list of projects which have not yet been funded. The plan is updated annually.

**7.6 RISK ASSESSMENT**

**7.6.1 Jurisdiction-Specific Natural Hazard Event History**

Table 7-11 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 hazard mitigation plan.

**Table 7-11. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Severe Winter Storm			1/11/2024	\$10,000 in property damage
Severe Winter Storm			1/8/2024	Heavy Snow
Severe Winter Storm			12/9/2023	Heavy Snow
Severe Winter Storm			12/1/2023	Heavy Snow
Severe Winter Storm			10/24/2023	
Severe Weather-High Wind			6/17/2023	
Severe Weather-High Wind			6/13/2023	
Severe Winter Storm			3/7/2023	Heavy Snow
Severe Winter Storm			2/21/2023	Heavy Snow
Severe Weather-High Wind			2/20/2023	
Severe Winter Storm			1/4/2023	Heavy Snow
Severe Winter Storm			12/9/2022	Heavy Snow
Severe Winter Storm			11/29/2022	Heavy Snow
Severe Winter Storm			11/6/2022	Heavy Snow
Wildfire			7/18/2022	\$460,000 in property damage
Severe Storm, Flooding			6/5/2022	No. 1 Canyon Road, Fifth Street, Western flooded and debris cleanup
Severe Winter Storm			4/14/2022	Heavy Snow
Severe Winter Storm	DR-4650-WA		12/26/2021 to 1/15/2022	Heavy Snow
Wildfire			7/13/2021	\$5,000 in property damage
Wildfire			7/4/2021	



Severe Weather-Excessive Heat			6/26/2021	
Severe Weather-High Wind			5/23/2021	\$5,000 in property damage
Severe Winter Storm			1/26/2021	Heavy Snow
Severe Weather-Windstorm			1/13/2021	\$10,000 in property damage
Severe Winter Storm			1/11/2021	Heavy Snow
Severe Winter Storm			12/25/2020	Heavy Snow
Severe Winter Storm			12/16/2020	Heavy Snow
Wildfire			8/1/2020	
Severe Weather-Windstorm			7/1/2020	\$2,000 in property damage
Severe Weather-Windstorm			5/6/2020	\$16,000 in property damage
COVID-19 Pandemic	DR-4481-WA		1/20/2020 to 5/11/2023	
Sever Winter Storm			1/18/2020	Heavy Snow
Severe Winter Storm			1/15/2020	Heavy snow
Severe Winter Storm			12/19/2019	Heavy snow
Wildfire			10/28/2019	\$150,000 in property damage
Severe Storm, Flooding			9/10/2019	Wenatchee Valley College Campus, Duncan Road, water damage to at least two buildings
Severe Storm, Flooding, and Landslide			8/10/2019	Flooding and \$100,0000 in property damage on South Wenatchee Avenue, landslide from N Mission to Boodry
Severe Storm-Flash Flood			6/26/2019	\$5,500 in damages, flooding in Olds Station, West Wenatchee and Crescent Street
Severe Winter Storm			1/8/2019	Heavy snow
Horse Lake Fire		No	9/4/2016	\$50,000 in property damage from a historic barn and acreage
Sleepy Hollow Fire	FM-5087-WA	Yes	6/28/2015	\$22,000,000, Destroyed 29 residences, 4 commercial building, 1 outbuilding, and 2,950 acres
Severe Storm, Flooding			8/1/2013	Severe erosion over BNSF rail at Snohomish Street
Wenatchee Complex Fires	FM-5012-WA	Yes	9/8/2012	\$20,000, Destroyed 1 outbuilding and 55,478 acres
Easy Street Fire	FM-2711-WA	Yes	07/07/2007	\$60,000, Destroyed 3 outbuildings, 2,500 acres
Castlerock Fire			9/26/1992	\$5,000,000, Destroyed 24 residences, 6 outbuildings, 3,500 acres
Severe Weather-Windstorm		No	12/4/2006	\$3,292,842, Destroyed fire station and damaged numerous homes, outbuildings, power infrastructure, trees
Severe Storms, High Wind, and Flooding	1079	Yes	January 1996	Trail restoration

<b>Volcanic Eruption – Mount St. Helens</b>	623	Yes	May 1980	Ash removal
<b>Landslide</b>	N/A	No	1965	One fatality

### 7.6.2 Hazard Risk Ranking

Table 7-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 7-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Severe Weather	33	High
2	Earthquake	32	Medium
3	Wildfire	22	Medium
4	Drought	20	Medium
4	Flood	18	Medium
5	Landslide	18	Medium
7	Dam or Levee Failure	6	Low
8	Avalanche	0	None

### 7.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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.

#### ***Repetitive Loss Properties***

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 2
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

#### ***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:

- Over 66% of the population lives in 0.2 percent annual chance flood hazard area. This flood event could displace over 18,000 people and generate over 20,000 tons of structure debris.
- The 100-year flood event would impact approximately 799 structures and over 2,100 people.
- A magnitude 7.2 earthquake would impact 13,266 structures with a total building value of over 10 billion dollars.
- Businesses adjacent to Crescent Street and Snohomish Street in South Wenatchee have experienced multiple flooding issues during rain events.

- Critical utility infrastructure including drinking water reservoirs and wastewater anaerobic digesters have not been evaluated for earthquake resiliency and are likely vulnerable to an earthquake due to the age of the infrastructure.
- The Public Services Center which is a critical emergency response base of operations does not have a generator for backup power.
- The Okanogan Drinking Water Reservoir is over 100 years old and with a significant leak. The City’s distribution system leakage is over 20%.
- The City has two egress routes for evacuation during a wildfire, flood or earthquake where over 66% or more of the population would need to escape. Both evacuation routes are across bridges that were built prior to seismic standards and could experience significant damage during an earthquake.
- The City does not have a debris management plan or dedicated locations to manage debris.
- The City does not have a permanent location or equipment to manage snow.
- The Broadview neighborhood only has one developed route to evacuate.
- Neighborhoods in No. 1 Canyon only have one evacuation route.
- The underpass at Fifth Street frequently floods making it impassable and limiting evacuation routes from the waterfront.
- The stormwater infrastructure on North Miller to the Walla Walla outfall is inadequate to handle severe rain events and results in flooding of the intersection at North Miller and North Wenatchee Avenue, one of the highest traffic intersections in the City.
- The City has a sole source for drinking water and a single transmission main from the source that crosses two rivers.
- The City is a Tree City USA City with many old/decaying trees. There are many trees and branches that fall down in public spaces during a wind event.

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

## 7.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 7-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 7-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>W-1—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.</b>	Carried over to updated plan	W-1
<i>Comment: The City will continue to look for opportunities to support retrofit or relocate structures in high hazard areas.</i>		
<b>W-2—Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including Wenatchee Urban Area Comprehensive Plan, Comprehensive Stormwater Plan, Water System Plan, Sewer Comprehensive Plan, Wastewater Treatment Plant Facilities Plan, Capital Facilities Plan, Wenatchee Valley Stormwater Management Program</b>	Completed	N/A
<i>Comment: The hazard mitigation plan has been incorporated in the comprehensive plan.</i>		
<b>W-3—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</b>	Completed	N/A
<i>Comment: City staff participated in plan maintenance protocols</i>		

<p><b>W-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:</b></p> <ul style="list-style-type: none"> <li>• Enforce the flood damage prevention ordinance.</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/information on floodplain requirements and impacts.</li> </ul>	Completed	N/A
<p><i>Comment: City has flood control standards and building code requirements.</i></p>		
<p><b>W-5—Conduct a seismic risk assessment on all City of Wenatchee facilities</b></p>	Carried over to updated plan	W-2
<p><i>Comment: Not completed for all city facilities</i></p>		
<p><b>W-6—Continue enforcement of and look for opportunity to update the planning, zoning, and building codes within wildland urban interface areas of the City</b></p>	Completed	N/A
<p><i>Comment: City has Wildland Urban Interface code that is consistently implemented</i></p>		
<p><b>W-7—Continue public education programs that emphasize fire defensible space through FireWise landscaping.</b></p>	Carried over to updated plan	W-3
<p><i>Comment: The City has informational handouts regarding development in the WUI area.</i></p>		
<p><b>W-8—Enhance early warning systems from the National Weather Service and public notification from the emergency alert system.</b></p>	Removed; no longer feasible	N/A
<p><i>Comment: Transfer responsibility to Chelan County Emergency Management</i></p>		
<p><b>W-9—Community public education and preparedness for disasters.</b></p>	Carried over to updated plan	W-4
<p><i>Comment: Ongoing effort</i></p>		
<p><b>W-10—Maintain emergency response plans that include warning, evacuation, emergency shelters, and other emergency procedures.</b></p>	Completed	N/A
<p><i>Comment: City actively engaged in this effort. City updated the Water Utility Emergency Response Plan and Continuity of Operations Plan.</i></p>		
<p><b>W-11—Adopt strict floodplain zoning/regulations both in the current city limits and the urban growth area.</b></p>	Completed	N/A
<p><i>Comment: City has completed this action.</i></p>		
<p><b>W-12—Public education to alert the public of flooding hazards</b></p>	Completed	N/A
<p><i>Comment: Ongoing effort with Chelan County Emergency Management and Chelan County Flood Control Zone District</i></p>		
<p><b>W-13—Encourage and support watershed monitoring and rehabilitation practices for fire burn areas surrounding the city.</b></p>	Removed; no longer feasible	N/A
<p><i>Comment: The Chelan-Douglas Land Trust and CCPUD lead these efforts</i></p>		
<p><b>W-14—Maintain emergency response readiness through disaster training and exercises.</b></p>	Completed	N/A
<p><i>Comment: Ongoing effort</i></p>		
<p><b>W-15—Development of appropriate land use controls as City expands into Wenatchee Foothills and No. 1 and No. 2 Canyons.</b></p>	Completed	N/A
<p><i>Comment: City has adopted critical area regulations, a wildland urban interface code, and zoning designations appropriate for the identified areas.</i></p>		

## 7.8 HAZARD MITIGATION ACTION PLAN

Table 7-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 7-15 identifies the priority for each action. Table 7-16 summarizes the mitigation actions by hazard of concern and mitigation type. Completed worksheets are on file with the City.

**Table 7-14. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action W-1</b> — Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
Existing	2, 4, 6	1, 2, 5	Community Development Department	Public Works	High	HMGP, PDM, FMA	Short-Term
<b>Action W-2</b> —Conduct a seismic risk assessment on all City of Wenatchee facilities, including critical utility assets.							
<b>Hazards Mitigated:</b> Earthquake, Wildfire							
New and Existing	2, 6, 7	1, 4	Public Works	Washington State Department of Transportation	High	BRIC, HMGP, PDM, Utility Professional Services Budget	Short-Term
<b>Action W-3</b> — Continue public education programs that emphasize fire defensible space through FireWise landscaping.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	5, 6, 9	2, 3, 4, 5, 6	Community Development Department	Public Works	Low	Staff Time	Short-Term
<b>Action W-4</b> — Community public education and preparedness for disasters.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing					Low	Staff Time	Short-Term
<b>Action W-5</b> — Prepare a Disaster Debris Management Plan.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 4, 6, 8	1, 2, 4, 6	Public Works	Chelan County	High	City CIP Budget, County or State Funding	Short-Term
<b>Action W-6</b> — Complete Anaerobic Digester Improvements Project							
<b>Hazards Mitigated:</b> Earthquake							

Existing	4	1, 2	Public Works	Chelan County	Very High	BRIC, HMGP, PDM, City CIP Budget	Short-Term
<b>Action W-7</b> — Fifth Street Utility Improvements (Piere to Wenatchee Avenue).							
<b>Hazards Mitigated:</b> Earthquake, Flood, Severe Weather, Wildfire							
Existing	2, 4, 6	1, 2, 3	Public Works		Very High	BRIC, HMGP, PDM, City CIP Budget	Short-Term
<b>Action W-8</b> — Okanogan Drinking Water Reservoir Replacement.							
<b>Hazards Mitigated:</b> Drought, Earthquake, Wildfire							
Existing	2, 4, 6	1, 2, 3, 4	Public Works		Very High	BRIC, HMGP, PDM, HMGP Post-Fire, City CIP Budget, Drinking Water State Revolving Fund	Short-Term
<b>Action W-9</b> — A secondary river crossing for sewer, drinking water, and vehicle infrastructure will be constructed across the Wenatchee River.							
<b>Hazards Mitigated:</b> Earthquake, Wildfire							
New	2, 4, 6, 8	1, 2, 3, 4	Public Works		Very High	BRIC, HMGP, PDM, HMGP Post-Fire, City CIP Budget	Short-Term
<b>Action W-10</b> — Snohomish/Crescent Stormwater Improvements.							
<b>Hazards Mitigated:</b> Flood, Landslide, Severe Weather							
New and Existing	4, 6	1, 2, 3	Public Works		Very High	BRIC, HMGP, PDM, City CIP Budget	Short-Term
<b>Action W-11</b> — Construct a new surface water treatment plant as a redundant source for the Wenatchee Valley.							
<b>Hazards Mitigated:</b> Drought, Earthquake, Severe Weather, Wildfire							
New	2, 4, 6	1, 2, 4, 6	Public Works		Very High	BRIC, HMGP, PDM, HMGP Post-Fire, City CIP Budget, Drinking Water State Revolving Fund, Water Infrastructure Finance Innovation Act	Long-Term

**Action W-12**— Walla Walla Stormwater Outfall will be relocated. Water quality treatment and green infrastructure will be added. In addition, an educational component will be included.

<b>Hazards Mitigated:</b>	Flood, Severe Weather																
New and Existing	4, 6, 11	1, 2, 3, 5, 6	Public Works	Public Utilities District No. 1 of Chelan County	Very High	BRIC, HMGP, PDM, HMGP Post-Fire, City CIP Budget	Short-Term										

Acronyms used here are defined at the beginning of this volume.

**Table 7-15. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
W-1	3	3	1	1	1	0	3	0	1	3	0	1	0	3	3	23	Medium
W-2	3	3	3	3	3	3	3	0	0	3	3	0	3	3	3	36	High
W-3	3	3	3	3	3	3	0	3	3	0	3	0	3	3	3	36	High
W-4	3	3	3	3	3	1	3	0	3	3	3	3	3	3	3	40	High
W-5	3	3	1	3	3	0	3	0	3	1	3	3	3	3	3	35	High
W-6	3	3	3	3	3	0	3	0	0	3	3	0	3	3	3	33	High
W-7	3	3	3	3	3	1	3	1	3	3	3	3	3	3	3	41	High
W-8	3	3	3	3	3	0	3	3	3	3	3	3	3	3	3	42	High
W-9	3	3	3	3	3	1	3	0	1	3	3	3	3	3	3	38	High
W-10	3	3	3	3	3	1	3	0	3	3	3	0	3	3	3	37	High
W-11	3	3	3	3	3	1	3	0	3	3	3	3	1	3	3	38	High
W-12	3	3	3	3	3	1	3	3	3	1	3	3	3	3	3	41	High

**Table 7-16. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazards	Medium-Ranked Hazard						Low-Ranked Hazard	
		Severe Weather	Earthquake	Wildfire	Drought	Flood	Landslide	Dam or Levee Failure	Avalanche	
W-1	Prevention, Property Protection, Structural Projects, Climate Resilience, Natural Resource Protection	●	●			●	●			
W-2	Prevention, Property Protection		●							
W-3	Prevention, Property Protection, Climate Resilience, Public Education and Awareness			●						
W-4	Prevention, Public Education and Awareness	●	●	●	●	●	●	●	●	
W-5	Property Protection, Natural Resource Protection, Emergency Services, Community Capacity Building	●	●	●		●	●	●	●	
W-6	Property Protection, Structural Projects		●							
W-7	Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience	●	●	●		●				
W-8	Property Protection, Public Education and Awareness, Emergency Services, Structural Projects, Climate Resilience		●	●	●					
W-9	Property Protection, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building		●	●						
W-10	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●		●		●	●			
W-11	Property Protection, Climate Resilience	●	●	●	●					
W-12	Property Protection, Public Education and Awareness, Natural Resource Protection, Climate Resilience	●				●				



## 7.9 PUBLIC OUTREACH

Table 7-17 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 7-17. Local Public Hazard Mitigation Outreach**

Local Outreach Activity	Date	Number of People Involved
Updated Canyon Drain Webpage on City Website	2/1/2023	35,850

## 7.10 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **City of Wenatchee Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Wenatchee Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- **City of Wenatchee 4MG Reservoir Study, August 2022**—The study was used to provide cost estimates and determine the best alternative to address the 4 million gallon drinking water reservoir on Okanogan Street.
- **City of Wenatchee, M-500 Basin Analysis Technical Memorandum, August 18, 2023**—The technical memo provided information for the Fifth Street Utility Improvements.
- **Columbia Corridor Utilities Study, April 2024**—The study provided information for the Fifth Street Utility improvements project.
- **City of Wenatchee 2018 Comprehensive Water System Plan, Volume 1 City Distribution System**—The document was reviewed for mitigation actions that would be applicable for this annex.
- **City of Wenatchee 2018 Comprehensive Water System Plan, Volume 2 Regional Water Supply**—The document was reviewed for mitigation actions that would be applicable for this annex.
- **City of Wenatchee Comprehensive Stormwater Plan, August 14, 2020**—The document was reviewed for mitigation that would be applicable for this annex.
- **City of Wenatchee Wastewater Treatment Plant Facilities Plan Amendment, March 22, 2023**—The plan was reviewed and information on the anerobic digester improvement projects were included in this annex.
- **Stevens Street and Snohomish Street Outfalls Study Summary Report, November 2023**—This report provided information on the Snohomish & Crescent Stormwater Improvement project.
- **Wenatchee Regional Water Second Source Predesign Feasibility Engineering Study and Alternatives Analysis, January 27, 2023**—The report was reviewed to provide information on mitigation actions for this annex.
- **Wenatchee Secondary Water Source Configuration Alternatives and Costs, May 8, 2024**—The memo was used provide information for mitigation actions.

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.
- **EJScreen: Environmental Justice Screening and Mapping Tool**—This online tool provides data on socially vulnerable people within the community and specific project areas.

## 7.11 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

The City has multiple planning and assessment efforts that will help to better define risk and vulnerability during the most common natural hazard events. Specifically, the City plans to evaluate evacuation routes, bridge safety and resiliency, natural disaster debris management, and assess critical assets for their seismic resiliency.

## 7.12 HAZARD MAPS

Hazard maps for the City of Wenatchee are provided on the following pages.



## 8. CASCADIA CONSERVATION DISTRICT

### 8.1 LOCAL HAZARD MITIGATION PLANNING TEAM

#### Primary Point of Contact

Ryan Williams, Executive Director  
1350 McKittrick St, Suite B  
Wenatchee, WA 98826  
509-436-1601  
ryanW@cascadiacd.org

#### Alternate Point of Contact

Patrick Haggerty, Forestry Program Manager,  
1350 McKittrick St, Suite B  
Wenatchee, WA 98826  
509-436-1601  
patrickH@cascadiacd.org

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 8-1.

**Table 8-1.** Local Hazard Mitigation Planning Team Members

Name	Title
Ryan Williams	CCD Executive Director
Patrick Haggerty	CCD, Forestry Program Manager
Isobel Worner	CCD, Forest and Community Resilience Specialist
Joe Hill	CCD, Forest and Community Resilience Specialist

### 8.2 JURISDICTION PROFILE

#### 8.2.1 Overview

Cascadia Conservation District (Cascadia) was created in 1944 as part of a national response to the Dust Bowl and was known as Chelan County Conservation District until 2007. Cascadia has worked for 75 years to assist local land managers to address the many challenges to long-term natural resource sustainability. Cascadia serves the citizens of its community (county, state, country) to ensure the long-term use of natural resources in an economically, socially, and environmentally sustainable manner using non-regulatory, voluntary approaches.

Cascadia is primarily grant funded, and averages approximately 20 open grants at any time. The grants are secured predominantly from state and federal sources such as the Washington State Conservation Commission, Department of Natural Resources, Department of Ecology, Salmon Recovery Funding Board, US Bureau of Reclamation, Bonneville Power Administration, and the U.S. Natural Resources Conservation Service.

The remaining revenue is from local and private sources, including a local parcel-based fee system and private organizations (e.g., The Community Foundation). The local funding is used to secure many of the

state and federal grants, so although the local funds are a small part of the overall revenue, they are critical to obtaining those grants.

Cascadia and other conservation districts are the ONLY organizations in Washington State that routinely design and apply on-the-ground solutions to nonpoint water quality problems on privately owned resource lands. Further, the technical help provided by conservation districts to private landowners is free for the asking. Each conservation district is led by a five-member board of volunteer supervisors - three elected locally and two appointed by the state's conservation agency, the Conservation Commission. These individuals serve three-year terms, during which time they keep informed of locally important natural resource or environmental issues and decide what projects their district will undertake each year. Also, Cascadia has 18 full-time paid staff that work to implement the annual and long-range plans of the Board of Supervisors, each managing several natural resource concerns ranging from agriculture, water quality, soil erosion, botany, forestry and wildfire. Cascadia serves all of Chelan County, including the unincorporated areas as well as the cities of Wenatchee, Chelan, Leavenworth, Cashmere, and Entiat, and communities such as Plain, Peshastin, Dryden, Monitor, Malaga, Ardenvoir, Manson, Lucerne, and Stehekin.

The Cascadia Conservation District Board of Supervisors assumes responsibility for the adoption of this plan, and their staff will oversee its implementation.

### **8.2.2 Service Area**

Cascadia serves a population of approximately 76,533 (2013 Census) in Chelan County. Its service area covers an area of 2,994 square miles, of which 2,921 square miles is land and 73 square miles (2.5%) is water. Chelan County is the third-largest county in Washington by area.

### **8.2.3 Assets**

Cascadia Conservation District does not own land in Chelan County and maintains minimal equipment or other assets that would be of particular value for emergency management, other than vehicles for transportation of staff to assist in plan activities. CCD is working with landowners to develop a private lands prescribed fire program, and is acquiring basic firefighting resources to support that program. This includes a prescribed fire trailer equipped with hand tools, water bags, fire hoses, PPE, etc. for a 20-person hand crew. The district is also currently purchasing a crew vehicle for the seasonal employees which will double as a Type 6 brush truck.

## **8.3 CURRENT TRENDS**

Chelan County population is expected to increase by 15% by the year 2037 to a total of 88,206, according to the Washington State Office of Financial Management.

With the increased population, flooding, wildfire and other natural resource concerns will put more residences and private properties at risk.

## 8.4 CAPABILITY ASSESSMENT

### 8.4.1 Existing Capabilities

#### Planning and Regulatory Capabilities

Jurisdictions develop plans and programs and implement rules and regulations to protect and serve residents. When effectively prepared and administered, these plans, programs and regulations can support the implementation of mitigation actions. Table 8-2 summarizes existing codes, ordinances, policies, programs or plans that are applicable to this hazard mitigation plan. It is important to note that the Conservation District is a non-regulatory organization. Cascadia serves in an economically, socially, and environmentally sustainable manner using non-regulatory, voluntary approaches. Cascadia actively participates in local, state, and regional planning efforts related to natural resource management, disaster planning, and climate resilience.

**Table 8-2. Planning and Regulatory Capability**

Plan, Study or Program	Date of Most Recent Update	Comment
<b>Cascadia Conservation District Annual Plan</b>	June 2024	Update conducted annually in June
<b>Cascadia Conservation District Long-Range Plan</b>	June 2023	Update every 5 years
<b>Post-Disaster Recovery Program</b>	Ongoing	Cascadia works with partner agencies to convene a post-fire recovery work group following large fires. The group analyzes post-fire flood and debris flow risks and conducts community outreach to inform residents of those risks. Cascadia also works with individual landowners to help them recover the natural resources and agriculture infrastructure on their property.
<b>Riparian and Floodplain Restoration Program</b>	Ongoing	Cascadia participates in a Coordinated Resource Management Group with Trout Unlimited and Cascade Fisheries Enhancement. Together with these partners the CRM implements projects which activate and protect floodplains, improve culverts for fish passage and flood resilience, and reduce drought impacts through nature-based solution water storage projects.
<b>Wildfire and Community Resilience Program</b>	Ongoing	Cascadia works with private landowners and communities to develop Firewise USA Communities, conduct home ignition zone assessments, develop forest management plans, and provide cost-share for fuels reduction projects.
<b>Home Hardening Rebate Program</b>	2024-2025 Pilot	Cascadia provides up to \$600 rebates for residents who install BMPs for retrofits which make their home more resistant to wildfires.
<b>Equitable Mitigation Fuels Reduction Crew</b>	Ongoing	Cascadia works with local fire districts, Team Rubicon, and contractors to provide free fuels reduction in the 100' around homes for socially vulnerable community members.

<b>Special Purpose (flood management, critical area)</b>		Cascadia works with private landowners and their natural resource concerns and participated in the formation of the Chelan County Flood Zone Control District. Cascadia is a non-regulatory voluntary special purpose district.
<b>Emergency Response Plan</b>		Cascadia works with private landowners and their emergency preparedness and evacuation plans. Cascadia is a non-regulatory voluntary special purpose district.
<b>Cascadia Conservation District RCW 89.08 (enabling legislation)</b>		Cascadia has authority to work on all natural resource issues as well as to partner with others to accomplish this work.
<b>Washington 20-year Forest Health Strategic Plan</b>	2018	Cascadia contributed significantly to this statewide plan through participation in focus groups, committees, and workgroups.
<b>Washington 10-year Wildfire Strategy</b>	2019	Cascadia contributed significantly to this statewide plan through participation in focus groups, committees, and workgroups.
<b>Chelan County Climate Resiliency Strategy</b>	2020	Participated as a steering committee member to develop the strategy. The Committee continues to meet, and Cascadia continues to participate in implementing annual workplans
<b>Our Valley our Future Action Plan 2022-2026</b>	2022	Cascadia was identified as lead implementer of several of the 86 actions in the 2021 Action Plan. Our actions were primarily related to wildfire resilience and agriculture preservation.
<b>WA DNR Dual Benefit Analysis (HB 1784)</b>	2021	Participated as a member of the technical advisory committee to which conducted analysis to prioritize areas for fuels reduction which would have the greatest benefit to both forest health and wildfire response.

### **Fiscal, Administrative and Technical Capabilities**

Fiscal capability is an indicator of a jurisdiction’s ability to fulfill the financial needs associated with hazard mitigation projects. An assessment of fiscal capabilities is presented in Table 8-3. Administrative and technical capabilities represent a jurisdiction’s staffing resources for carrying out the mitigation strategy. An assessment of administrative and technical capabilities is presented in Table 8-4.

**Table 8-3. Fiscal Capability**

<b>Financial Resource</b>	<b>Accessible or Eligible to Use?</b>
<b>Capital Improvements Project Funding</b>	No
<b>Authority to Levy Taxes for Specific Purposes</b>	No
<b>User Fees for Water, Sewer, Gas or Electric Service</b>	No
<b>Incur Debt through General Obligation Bonds</b>	No
<b>Incur Debt through Special Tax Bonds</b>	No
<b>Incur Debt through Private Activity Bonds</b>	No
<b>State-Sponsored Grant Programs</b>	Yes
<b>Development Impact Fees for Homebuyers or Developers</b>	No

<b>Federal Grant Programs</b>	Yes
<b>Other</b>	Yes. County Parcel Assessment

**Table 8-4. Administrative and Technical Capability**

<b>Staff/Personnel Resource</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
<b>Planners or engineers with knowledge of land development and land management practices</b>	Yes	Cascadia Conservation District/Program Director, Regional Engineer, Resource Specialists, Project Coordinators with expertise on wildfire, erosion, soils, agriculture, water rights/protection, forestry, prescribed fire.
<b>Engineers or professionals trained in building or infrastructure construction practices</b>	Yes	Cascadia Conservation District/Regional Engineer
<b>Planners or engineers with an understanding of natural hazards</b>	Yes	Cascadia Conservation District/Program Director, Regional Engineer, Resource Specialists, Project Coordinators with expertise on wildfire planning and preparedness, prescribed fire, smoke management, geologic hazards, etc.
<b>Staff with training in benefit/cost analysis</b>	Yes	Cascadia Conservation District/Project Coordinators, Resource Specialists with experience completing benefit cost analysis for FEMA grant applications.
<b>Surveyors</b>	No	
<b>Personnel skilled or trained in GIS applications</b>	Yes	Cascadia Conservation District/ Project Coordinators, Resource Specialists
<b>Scientist familiar with natural hazards in local area</b>	Yes	Cascadia Conservation District Resource Specialists are local experts.
<b>Emergency manager</b>	No	
<b>Grant writers</b>	Yes	Cascadia Conservation District/ Program Director, Project Coordinators, Resource Specialists
<b>Other</b>	Yes	Cascadia Conservation District/ District Administrator, and Administrative Assistant

### **Education and Outreach Capabilities**

Outreach and education capabilities identify the connection between government and community members, which opens a dialogue needed for a more resilient community. An assessment of education and outreach capabilities is presented in Table 8-5.



**Table 8-5. Education and Outreach**

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Landowner information and partner links to wildfire preparedness, post-fire recovery, post-fire flooding information, and drought preparedness/mitigation
Do you use social media for hazard mitigation education and outreach?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Post informational content related to flooding, landslide hazards, fire-recovery, and share partner posts
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly specify</li> </ul>	Cascadia has a board of supervisors that oversee all District work, including that pertaining to natural hazard mitigation.
Do you have any other programs already in place that could be used to communicate hazard-related information?	Quarterly newsletter, youth and adult education programs, workshops and events
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Newsletter goes out quarterly to all residents in Chelan County, annual events such as “Kids in the Forest” engage 1000’s of kids and discuss wildfire preparedness/fire ecology, annual adult programs such as “Native Planting 101” has modules on fire resistant landscaping.
Do you have any established warning systems for hazard events?	No
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Other than sharing partner warnings on social media

**National Flood Insurance Participation**

The District is not an incorporated jurisdiction and has no regulatory authority for development.

**Community Classifications**

Classifications under various community mitigation programs are presented in the following table.

**Table 8-6. Community Classifications**

	Participating?	ID Number	Classification	Date Classified
UEI #	Yes	LRBHHKJLM9Z4		
Public Protection	No			
StormReady	No			
Firewise	No			

## Adaptive Capacity for Climate Change

Given the uncertainties associated with how hazard risk may change with a changing climate, a jurisdiction's ability to track such changes and adapt as needed is an important component of the mitigation strategy. Table 8-7 summarizes the jurisdiction's adaptive capacity for climate change.

**Table 8-7. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
<b>Jurisdiction-level understanding of potential climate change impacts</b>	High
<b>Comment:</b>	<i>Cascadia participates in a broad level of programs where Climate Change mitigation is a focus including the Chelan County Climate Resiliency Roundtable</i>
<b>Jurisdiction-level monitoring of climate change impacts</b>	Medium
<b>Comment:</b>	<i>Cascadia monitors climate change impacts through some of our planning work, including work with federal land managers on large landscape restoration projects.</i>
<b>Technical resources to assess proposed strategies for feasibility and externalities</b>	High
<b>Comment:</b>	<i>Cascadia partners with local, state, federal, tribal, and nongovernmental organizations</i>
<b>Jurisdiction-level capacity for development of greenhouse gas emissions inventory</b>	N/A
<b>Comment:</b>	<i>Cascadia is a non-regulatory voluntary special purpose district working with private landowners</i>
<b>Capital planning and land use decisions informed by potential climate impacts</b>	N/A
<b>Comment:</b>	<i>Cascadia is a non-regulatory voluntary special purpose district working with private landowners</i>
<b>Participation in regional groups addressing climate risks</b>	High
<b>Comment:</b>	<i>Cascadia partners with local, state, federal, tribal, and nongovernmental organizations on a wide range of planning efforts</i>
<b>Implementation Capacity</b>	
<b>Clear authority/mandate to consider climate change impacts during public decision-making processes</b>	Medium
<b>Comment:</b>	<i>Our volunteer-led stewardship organization can consider all resource concerns in its processes. Some funding sources have specific requirements or provisions to consider these impacts in project development.</i>
<b>Identified strategies for greenhouse gas mitigation efforts</b>	N/A
<b>Comment:</b>	<i>Cascadia is a non-regulatory voluntary special purpose district working with private landowners</i>
<b>Identified strategies for adaptation to impacts</b>	Medium
<b>Comment:</b>	<i>Considered in Conservation Plans and Forest Management Plans developed by Cascadia's planners for private landowners.</i>
<b>Champions for climate action in local government departments</b>	Medium
<b>Comment:</b>	<i>Cascadia is a non-regulatory voluntary special purpose district working with private landowners. The District participates in a wide range of local advisory and partnership groups which provide recommendations to local government, including recommendations for reducing climate change impacts.</i>
<b>Political support for implementing climate change adaptation strategies</b>	N/A
<b>Comment:</b>	<i>Cascadia does not set public policy, but supports science-based methods to promote agricultural viability and sustainability.</i>
<b>Financial resources devoted to climate change adaptation</b>	Medium
<b>Comment:</b>	<i>Cascadia has received several grants specifically targeting climate change adaptation, especially within our youth education programs.</i>

<b>Local authority over sectors likely to be negative impacted</b>		N/A
<b>Comment:</b>	<i>Cascadia is a non-regulatory voluntary special purpose district working with private landowners</i>	
<b>Public Capacity</b>		
<b>Local residents’ knowledge of and understanding of climate risk</b>		Medium
<b>Comment:</b>	<i>Chelan County has a long history of fruit production and agriculture reliant on its natural resources and interested in managing for viable and sustainable operations. Additionally, many of our youth education programs include curriculum focused on improving understating of future climate risks.</i>	
<b>Local residents’ support of adaptation efforts</b>		Medium
<b>Comment:</b>	<i>Cascadia conducts site visits and creates conservation plans for private residents throughout the county. Recommendations for climate adaptation are made in Conservation Plans and Forest Management Plans developed by Cascadia’s planners for private landowners.</i>	
<b>Local residents’ capacity to adapt to climate impacts</b>		Medium
<b>Comment:</b>	<i>Cascadia is a member of the Washington Fire Adapted Communities Learning Network, and with an increase in fire frequency and impact we have made fire adapted communities practices part of our short and long-range strategic plans. We are also help leading conversations around smoke preparedness and are working to make programs more accessible to the whole community through efforts such as recently hiring a bi-lingual education and outreach specialist focused on outreach to the Spanish speaking community.</i>	
<b>Local economy current capacity to adapt to climate impacts</b>		Low/Medium
<b>Comment:</b>	<i>Cascadia works with agriculture producers to provide technical and financial resources which can reduce climate impacts to their operations, such as funding to purchase more efficient irrigation systems which result in significant water savings</i>	
<b>Local ecosystems capacity to adapt to climate impacts</b>		High
<b>Comment:</b>	<i>Climate adaptation is considered in Conservation Plans and Forest Management Plans developed by Cascadia’s planners for private landowners.</i>	

- 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.

### 8.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning and Regulatory Capabilities

Cascadia currently employees six full-time environmental planners with skills in project management, permitting, and project implementation. The District also employees two archeologists who are available to assist in planning phases of projects for Cultural Resources Review and tribal engagement.

#### Fiscal Capabilities

Based on the capability assessment, the District currently does not need to expand this capability.

### **Administrative and Technical Capabilities**

Cascadia has expanded administrative and technical capabilities since 2020. We currently have three financial administrators and are advertising a new position, Finance and Operations Director, who will bring further our ability to manage large grants, pass-through funding to smaller organizations, and cash flow. On the technical side we have several staff that have wildland fire fighting experience and qualifications, and we are working on building out prescribed fire capabilities. We are currently conducting education and outreach to landowners regarding use of prescribed fire and implementing prescribed fire on private lands.

### **Public Education and Awareness Capabilities**

Cascadia recently added a Bi-lingual Outreach Coordinator focused on increasing engagement with Spanish speaking residents in Chelan County.

### **NFIP Capabilities**

Special-purpose districts are not eligible to participate in the NFIP, and therefore do not have the capability nor the ability to expand on it.

## **8.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

The information on hazards, risk, vulnerability and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### **8.5.1 Existing Integration**

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

- Cascadia Conservation District Annual and Long-Range Plans, Programs, and funding applications address known and potential risks.
- WRIA 46 Entiat Watershed Action Plan includes consideration of hazards such as fire and flooding.
- Individual Conservation Plans for Private Landowners consider site-specific risks and responses to hazards and anticipated changed conditions.
- WA 20-Year Forest Health Strategic Plan
- WA 10-Year Wildfire Strategy
- Our Valley our Future 2022-2026 Action Plan
- 2019 Chelan County Community Wildfire Protection plan
- Okanogan-Wenatchee National Forest Restoration Strategy
- Columbia Basin Salmon Recovery Plan
- Chelan County Climate Resiliency Strategy
- Dual Benefit Analysis for Forest Health and Wildfire Response

- Chelan PUD Wildfire Resiliency and Mitigation Strategy

## 8.5.2 Opportunities for Future Integration

As this hazard mitigation plan is implemented, Cascadia will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan include actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

- Cascadia responds to events and requests for assistance; this information will help the district to be more prepared for those events and requests.

## 8.6 RISK ASSESSMENT

### 8.6.1 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 hazard mitigation plan.

**Table 8-8. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Pioneer Fire		Yes	06/08/2024	Ongoing, current fire perimeter is 38,184 acres
Horse Lake Fire		No	07/04/2024	Moderate burn severity on ~250 acres above neighborhoods on N
Methow Street Fire		No	06/27/2023	Moderate burn severity above neighborhoods in South Wenatchee. CCD implemented post-fire seeding and erosion control projects on ~200 ac
Irving Peak Fire			10/22/2022	15,908 acres burned
Red Apple Fire	FM-5398-WA	Yes	07/13/2021	Burned 12,283 acres resulting to high risk of post-fire flooding to hundreds of structures in Sunnyslope. DNR also evaluated potential risk of debris flow that could impact rocky reach dam

<b>25 Mile Creek Fire</b>	FM 5414-WA	Yes	08/15/2021	Several homes lost, infrastructure damage to road, lost crops from ag producers. Damage to local irrigation district supply lines and penstock. CCD conducted assessments on all private parcels and implemented debris clean-up and erosion control projects.
<b>Covid Pandemic</b>	EM-3427-WA	Yes	03/01/2020	Interruptions to programing, abilities to provide technical assistance and staffing.
<b>Leavenworth Heavy Snow</b>			01/06/2022	54" of snow in 36 hours. Stranded staff and impacted transportation for 1 week
<b>Navarre Fire</b>	NA		07/31/2018	No structures damaged; 165 acres
<b>25 Mile Creek Fire</b>	NA		07/29/2018	\$250,000; DESTROYED: 1 garage; power poles; guardrail; 22 acres
<b>Cougar Creek Fire</b>	FM-5270-WA		07/28/2018 ( <i>declaration 08/1/2018</i> )	\$ in progress; 42,712 acres
<b>Rocky Reach Fire</b>	NA		07/23/2018	No structures damaged; 3,386 acres
<b>Fields Point Fire</b>	NA		07/20/2018	No structures damaged; 60 acres
<b>Little Camas Creek Fire</b>	NA		07/05/2018	No structures damaged; 317 acres
<b>Eight Mile Lake Dam</b>	NA		03/13/2018	No structures damaged
<b>Monitor Fire</b>	NA		11/01/2017	No structures damaged; 1,100 acres
<b>Uno Peak Fire</b>	NA		08/30/2017	\$25,000; DESTROYED: 1 cabin; 7,879 acres
<b>Jack Creek Fire</b>	NA		08/11/2017	No structures damaged; 4,606 acres
<b>Spartan Fire</b>	NA		06/26/2017	Power poles damaged; 1,800 acres
<b>Spromberg Fire</b>	FM-5182-WA		05/23/2017	\$ in progress; Cedar log decks destroyed; 42 acres
<b>Horselake Fire</b>	NA		09/04/2016	\$50,000; Historical Barn Lost/Unk acreage
<b>Suncrest Fire</b>	FM-5152-WA		08/27/2016	\$ in progress; \$2,000 damage estimated.; Cell Tower Damage/ 496 acres
<b>Antilon Lake Fire</b>	NA		07/29/2016	1 vehicle destroyed; 540 acres
<b>Cranmer Road Landslide</b>	NA		05/06/2016	\$400,000; 2 residences affected
<b>Ribbon Cliff Fire</b>	NA		05/08/2016	No structures damaged; 25 acres
<b>Whispering Ridge Landslide</b>	NA		03/17/2016	\$400,000; 1 residence damaged
<b>Severe Storms, Landslides</b>	4249-DR-WA		01/15/2016	\$1,320,000; Yodelin Road Damage
<b>Chelan Complex Fires— Chelan Butte Fire; Deer Mtn Fire; Antoine Crk Fire; First Crk Fire</b>	4243-DR-WA		08/14/2015	\$23,513,366; DESTROYED: 30 Residences; 3 Commercial Businesses; 25 Other Structures Destroyed; 54,500 acres

<b>Sleepy Hollow Fire</b>	FM-5087-WA		06/28/2015	\$22,000,000+; DESTROYED: 29 Residences; 4 Commercial Businesses; 1 Outbuilding; 2,950 acres
<b>Wolverine Fire</b>	NA		07/03/2015	\$100,000; 62,167 acres 20
<b>Chiwaukum Complex Fires</b>	FM-5061-WA		07/15/2014	\$100,000; DESTROYED: 3 Cabins; 1 Outbuildings; 17,935 acres
<b>Mills Canyon Fire</b>	FM-5061-WA		07/08/2014	\$15,000; 3 Outbuildings 22,571 acres
<b>Eagle Fire</b>	FM-5048-WA		08/19/2013	\$2,273,317; No structures damaged; 14,076 acres
<b>Milepost 10 Fire</b>	FM-5042-WA		08/09/2013	\$1,200,000; 5,554 acres
<b>Colockum Tarps</b>	FM-5038-WA		07/27/2013	\$1,000,000+; DESTROYED: 3 residences; 1 commercial property; 1 outbuilding; 80,184 acres
<b>North Shore Fire—Lake Wenatchee</b>	NA		07/19/2013	\$1,200,000+; DESTROYED: 3 residences; DAMAGED: 1 residence; 6 acres
<b>Ice Storm – Lake Wenatchee</b>	NA ( <i>State Emergency Declaration Denied</i> )		12/20/2012	\$500,000+; 60+ residences damaged; 2 fatalities in vehicle accidents; 4 severely injured in vehicle accidents
<b>Wenatchee Complex Fires—Peavine Fire; Poison Cyn Fire; Canyons Fire; Twin Peaks Fire</b>	FM-5012-WA		09/08/21012	\$20,000; DESTROYED: 1 outbuilding; 56,478 acres
<b>Byrd Canyon Fire</b>	NA		09/08/2012	No known structures damaged; 14,119 acres
<b>Rainbow Bridge Fire</b>	NA		07/29/2010	No structures damaged; 3,710 acres
<b>Wenatchee River Complex—Nahahun Cyn Fire; Tripp Cyn Fire; Devils Gulch Fire</b>	NA No FMAG declared		07/30/2010	\$100,000; DESTROYED: Building supplies; 2,065 acres
<b>Union Valley Fire</b>	FM-2823-WA		08/01/2009	\$640,027; No structures lost; 768 acres
<b>Severe Winter Storms—Entiat River, Mission Creek</b>	1817-DR-WA		01/06/2009	(Unknown Damage Assessment)
<b>Kahler Glen Avalanche</b>	NA		02/07/2008	\$240,000; DESTROYED: 1 residence
<b>Easy Street Fire</b>	FM-2711-WA		07/07/2007	\$60,000; DESTROYED: 3 outbuildings; 2,500+ acres
<b>Windstorm – Wenatchee</b>	NA		12/472006	\$3,292,842; DESTROYED: fire station; DAMAGED: Numerous homes, outbuildings, power poles/lines, trees
<b>Flooding – Leavenworth Area</b>	1671-DR-WA		11/02/2006	\$92,000



<b>Flick Creek Fire</b>	FM-2674-WA		07/26/2006	\$80,510; Homes threatened; No structures lost; 7,883 acres
<b>Tinpan Fire</b>	NA		07/20/2006	No structures damaged; 9,247 acres
<b>Dirty Face Fire</b>	FM-2572-WA		07/31/2005	\$1,061,643; 73 residences threatened; 1,150 acres
<b>Fischer Fire</b>	FM-2543-WA		08/11/2004	\$3,033,966; DESTROYED: 1 residence/1 other; 300 residences threatened; 16,513 acres
<b>Deep Harbor Fire—Aka: Pot Peak Complex Fires</b>	FM-2537-WA		07/30/2004	\$47,179; DESTROYED: 3 cabins; 29,700 acres
<b>Deer Point Fire</b>	FSA-2449-WA		07/20/2002	\$2,573,214; DESTROYED: 5 minor structures; 43,375 acres
<b>Icicle Complex Fires</b>	FSA-2374-WA		08/14/2001	\$1,186,851; 7,696 acres
<b>Rex Creek Complex Fires</b>	FSA-2379-WA		08/13/2001	\$1,000,947; (No known structures damaged); 55,913 acres
<b>Union Valley Fire</b>	FSA-2368-WA		07/28/2001	\$1,121,445; DESTROYED: 3 residences; 4,700 acres
<b>Tyee Fire – COMPLEX—Tyee Fire; Hatchery Creek Fire; Round Mountain Fire</b>	FSA-2103-WA (includes Hatchery Creek Complex Fire)		07/24/1994	\$17,711,728 - total complex; DESTROYED: 37 Structures (residences/outbuildings); 135,000 acres
<b>Hatchery Creek – COMPLEX</b>	(see Tyee Complex Fire)		07/23/1994	(See Tyee Fire for Damage Totals); Additional 43,000 acres
<b>Castle Rock Fire</b>	(No Known FEMA #)		09/26/1992	\$5,000,000 (estimate); DESTROYED: 24 residences; 6 outbuildings; 3,500 acres
<b>Dinkleman Fire</b>	FSA-2070		09/06/1988	Unknown. Damage Assessment; DEATH: 1 person killed; DESTROYED: 1 residence; 50,000 acres
<b>Mount St. Helens Ash Fallout</b>	DR-623		05/18/1980	Unknown Damage Estimate
<b>Christmas Floods</b>	Unknown if Disaster Declaration Granted		12/26/1980	Unknown Damage Estimate; Roadway damage, bridge damage
<b>Lightning Burst Fires— Mitchell Creek Fire; Slide Peak Fire; Entiat River Fire</b>	FSA-2002		07/17/1970	Unknown Damage Estimate; 188,000 acres

## 8.6.2 Hazard Risk Ranking

Table 8-9 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.



**Table 8-9. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	45	High
3	Landslide	18	Medium
4	Flood	18	Medium
5	Drought	6	Low
8	Earthquake	0	Low
8	Dam or Levee Failure	0	Low
8	Avalanche	0	Low

### 8.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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:

- Drought vulnerability for sustainable agriculture production
- Post-fire debris flow and flooding impacts
- Floodplain restoration for flood resilience

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

## 8.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 8-10 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 8-10. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>CCD-1—Continue to develop and implement public education programs which increase public awareness of the risks associated with hazards/disasters and emergency preparedness.</b>	Carried over to updated plan	CCD-1
<i>Comment: Actively engaged in this ongoing work which will always be a need, and required to adapt to a changing landscape and population.</i>		
<b>CCD-2—Encourage residents to participate in the National Flood Insurance Program</b>	Completed	N/A
<i>Comment: Ongoing work which is focal point to deliver to residents who are on or near recent high severity burn scars. CCD meets with local, state and federal land managers/Cities and County to develop post-fire education plans following all large fires. CCD typically facilitates post-fire flooding meetings for communities.</i>		
<b>CCD-3—Obtain resources and materials to develop a National Flood Insurance Program outreach program for local residents.</b>	Completed	N/A
<i>Comment: Achieved using existing outreach materials from NFI</i>		

<b>CCD-4—Conduct individual property and community-wide wildfire risk assessments and evaluate potential mitigation projects.</b>	Completed	N/A
<i><b>Comment:</b> CCD completed over 400 property evaluations during the planning period, and worked with partners at local fire districts and DNR to secure funding which allowed partners to complete at least 3000 additional assessments</i>		
<b>CCD-5—Continue to work on actions items and proposed projects in the Chelan County Community Wildfire Protection Plan.</b>	Carried over to updated plan	CCD-2
<i><b>Comment:</b> CCD completed many of the action items from the CWPP in which they were identified as lead. Any action items that are ongoing in nature or were not completed will be carried over in the 2024 CWPP update.</i>		
<b>CCD-6—Prepare and maintain a prioritized list of existing undersized culverts that are in need of replacing.</b>	Carried over to updated plan	CCD-3
<i><b>Comment:</b> Culvert assessment continues to be an ongoing project throughout the county. CCD, Cascade Fisheries Enhancement, and Trout Unlimited are working together to systematically evaluate culverts throughout high priority salmon habitat and make prioritized lists for replacement of undersized pipes.</i>		
<b>CCD-7—Continue to work on action items and proposed projects in the Upper Columbia Salmon Recovery Plan and prioritization strategy that require stream bank and channel stabilization and/or restoration</b>	Completed	N/A
<i><b>Comment:</b> CCD continues to implement projects critical to the Upper Columbia Salmon Recovery Plan with a focus on increasing flood plain connectivity, and flood resilience through expanding riparian buffers and designing/implementing projects which create more functional floodplains.</i>		
<b>CCD-8—Continue to develop and implement public education programs and projects which increase public awareness of water use, irrigation efficiency, and irrigation water management strategies</b>	Carried over to updated plan	CCD-4
<i><b>Comment:</b> Actively engaged in this ongoing work. During the plan period we started a water smart campaign and developed the associated outreach targeted to residents, and continued our work with agriculture producers to provide technical and financial assistance to reduce on-farm water use.</i>		

## 8.8 HAZARD MITIGATION ACTION PLAN

Table 8-11 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 8-12 identifies the priority for each action. Table 8-13 summarizes the mitigation actions by hazard of concern and mitigation type. Completed action worksheets are on file with the district.

**Table 8-11. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action CCD-1</b> — Continue to develop and implement public education programs which increase public awareness of the risks associated with hazards/disasters and emergency preparedness.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and existing	1, 6, 7, 8, 9, 11	1, 4, 5, 6	Cascadia Conservation District	Chelan County Sheriff/EMS	Low	BRIC, HMGP, Staff Time	Short-Term
<b>Action CCD-2</b> — Continue to work on actions items and proposed projects in the Chelan County Community Wildfire Protection Plan.							
<b>Hazards Mitigated:</b> Flood, Landslide, Wildfire							
New and existing	3, 4, 5, 6, 9, 11	1, 2, 3, 4, 5, 6	Cascadia Conservation District	Chelan County Sheriff/EMS, fire districts, DNR, BLM, USFS	Very High	BRIC, HMGP, Staff Time, USDA Forest Service, WA State Conservation Commission, NRCS, Private	Short-Term
<b>Action CCD-3</b> — Prepare and maintain a prioritized list of existing undersized culverts that are in need of replacing. Replace culverts when funding is available.							
<b>Hazards Mitigated:</b> Flood, Landslide, Severe Weather							
Existing	2, 4, 6, 9	1, 3	Cascadia Conservation District	Chelan County Public Works, other road maintenance agencies	Very High	BRIC, HMGP, Staff Time, WA State Conservation Commission, WA RCO, WA DOE, WDFW, USFWS	Long-Term
<b>Action CCD-4</b> —Continue to develop and implement public education programs and projects which increase public awareness of water use, irrigation efficiency, and irrigation water management strategies.							
<b>Hazards Mitigated:</b> Drought							

New and existing	2, 4, 9, 11	1, 2, 3, 5, 6	Cascadia Conservation District	High	BRIC, Staff Time, WA State Conservation Commission, NRCS, Private	Short-Term
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**Table 8-12. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
CCD-1	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	39	High
CCD-2	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3	43	High
CCD-3	3	3	3	3	3	1	3	1	3	3	3	3	1	3	3	39	High
CCD-4	3	3	3	3	3	0	1	3	3	3	3	3	1	3	3	38	High

**Table 8-13. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazard		Medium-Ranked Hazard		Low-Ranked Hazard			
		Wildfire	Severe Weather	Landslide	Flood	Drought	Earthquake	Avalanche	Dam or Levee Failure
CCD-1	Public Education and Awareness, Community Capacity Building	●	●	●	●	●	●	●	●
CCD-2	Safety and Security, Transportation, Water Systems	●		●	●				
CCD-3	Prevention, Property Protection, Natural Resource Protection		●	●	●				
CCD-4	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Climate Resilience					●			

## 8.9 PUBLIC OUTREACH

Table 8-14 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 8-14.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
Wildfire Ready Neighbors (DNR led Wildfire Preparedness Campaign)	2020-Present	1500
Kids in the Forest (Students spend the day learning about wildfire)	Annual	1000
25-Mile Post-Fire Flood Outreach	Fall, 2021	65
Red Apple Fire Post-Fire Flood Outreach	Fall, 2021	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.

- **Cascadia Conservation District Annual and Long-Range Plans, Programs, and funding applications** address known and potential risks.
- **WRIA 46 Entiat Watershed Action Plan** includes consideration of hazards such as fire and flooding.
- **Individual Conservation Plans for Private Landowners** consider site-specific risks and responses to hazards and anticipated changed conditions.
- **WA 20-Year Forest Health Strategic Plan**—Utilized for strategic planning, grant writing, and partnership coordination
- **WA 10-Year Wildfire Strategy**—Utilized for strategic planning, grant writing, and partnership coordination
- **Our Valley our Future 2022-2026 Action Plan**—Utilized for strategic planning and grant writing.
- **2019 Chelan County Community Wildfire Protection Plan**—Utilized for grant writing and strategic planning.
- **Okanogan-Wenatchee National Forest Restoration Strategy**—Used for landscape evaluations to consider forest departures, and desired conditions under future climate scenarios
- **Columbia Basin Salmon Recovery Plan**—Floodplain and drought resilience projects
- **Chelan County Climate Resiliency Strategy**—Wildfire, smoke and agriculture resilience projects
- **Dual Benefit Analysis for Forest Health and Wildfire Response**—Used for planning wildfire mitigation projects
- **Chelan PUD Wildfire Resiliency and Mitigation Strategy**—Used for Fuelbreak and Forest Health Partnership Program
- **2019 Chelan County CWPP**
- **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. CHELAN COUNTY FLOOD CONTROL ZONE DISTRICT

### 9.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Jason Detamore, Environmental Manager  
 316 Washington Street, Suite 402  
 Wenatchee, WA 98801  
 (509) 667-6415  
 Jason.Detamore@co.chelan.wa.us

**Alternate Point of Contact**

Eric Pierson, Director/County Engineer  
 316 Washington Street, Suite 402  
 Wenatchee, WA 98801  
 (509) 667-6415  
 Eric.Pierson@co.chelan.wa.us

This annex was developed by the local hazard mitigation planning team, whose members are listed Table 9-1.

**Table 9-1. Local Hazard Mitigation Planning Team Members**

Name	Title
Jason Detamore	Environmental Manager
Eric Pierson	FCZD Administrator

### 9.2 JURISDICTION PROFILE

#### 9.2.1 Overview

In 2014, Chelan County formed a Flood Control Zone District to provide a dedicated program and funding source for flood hazard management. In 2017, the county adopted the Chelan County Comprehensive Flood Hazard Management Plan, which identifies resources, information, and strategies for reducing risk from flood hazards and will help guide and coordinate mitigation activities. The three-member Board of Supervisors assumes responsibility for the adoption of the Hazard Mitigation Plan and the county’s Flood Control Zone District will oversee its implementation. Funding is through an annual property tax of \$0.07 per \$1000 assessed value.

#### 9.2.2 Service Area

Chelan County’s Flood Control Zone District is implemented countywide, including the cities of Cashmere, Chelan, Entiat, Leavenworth, and Wenatchee. The District serves a population of approximately 80,000 and the service area covers 2,994 square miles.

#### 9.2.3 Assets

Table 9-2 summarizes the assets of the District and their value.

**Table 9-2. Special Purpose District Assets**

Asset	Value
<b>Property</b>	
2.63 acres of land (No. 1 Canyon Debris Facility #1)	\$0
21.46 acres of land (No. 1 Canyon Debris Facility #2)	\$158,000
<b>Equipment</b>	
None	N/A
<b>Total:</b>	\$0
<b>Critical Facilities</b>	
None	N/A
<b>Total:</b>	\$158,000

### 9.3 CURRENT TRENDS

The Chelan County Flood Control Zone District is implemented countywide, including the cities of Cashmere, Chelan, Entiat, Leavenworth, and Wenatchee. The District’s service area has not been altered since the formation in 2014. As the population grows in Chelan County, so does the number of customers. Since 2019, total customers have increased approximately 4 percent.

### 9.4 CAPABILITY ASSESSMENT

An assessment of the district’s current capabilities was conducted to identify opportunities to expand, initiate or integrate capabilities in order 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 Existing Capabilities

##### Planning and Regulatory Capabilities

Jurisdictions develop plans and programs and implement rules and regulations to protect and serve residents. When effectively prepared and administered, these plans, programs and regulations can support the implementation of mitigation actions. Table 9-3 summarizes existing codes, ordinances, policies, programs or plans that are applicable to this hazard mitigation plan.

**Table 9-3. Planning and Regulatory Capability**

Plan, Study or Program	Date of Most Recent Update	Comment
Chelan County Flood Control Zone District	2014	Formation of FCZD

<b>Comprehensive Flood Hazard Management Plan</b>	2017	Covers a 5-year timeframe, at a minimum
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### **Fiscal, Administrative and Technical Capabilities**

Fiscal capability is an indicator of a jurisdiction’s ability to fulfill the financial needs associated with hazard mitigation projects. An assessment of fiscal capabilities is presented in Table 9-4. Administrative and technical capabilities represent a jurisdiction’s staffing resources for carrying out the mitigation strategy. An assessment of administrative and technical capabilities is presented in Table 9-5.

**Table 9-4. Fiscal Capability**

<b>Financial Resource</b>	<b>Accessible or Eligible to Use?</b>
<b>Capital Improvements Project Funding</b>	Yes
<b>Authority to Levy Taxes for Specific Purposes</b>	Yes
<b>User Fees for Water, Sewer, Gas, or Electric Service</b>	No
<b>Incur Debt through General Obligation Bonds</b>	Yes
<b>Incur Debt through Special Tax Bonds</b>	No
<b>Incur Debt through Private Activity Bonds</b>	No
<b>State-Sponsored Grant Programs</b>	Yes
<b>Development Impact Fees for Homebuyers or Developers</b>	No
<b>Federal Grant Programs</b>	Yes
<b>Other</b>	No

**Table 9-5. Administrative and Technical Capability**

<b>Staff/Personnel Resource</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
<b>Planners or engineers with knowledge of land development and land management practices</b>	Yes	Chelan County Public Works Department
<b>Engineers or professionals trained in building or infrastructure construction practices</b>	Yes	Chelan County Public Works Department
<b>Planners or engineers with an understanding of natural hazards</b>	Yes	Chelan County Public Works Department
<b>Staff with training in benefit/cost analysis</b>	Yes	Consultant services
<b>Surveyors</b>	Yes	Chelan County Public Works Department
<b>Personnel skilled or trained in GIS applications</b>	Yes	Chelan County Public Works Department
<b>Scientist familiar with natural hazards in local area</b>	Yes	Chelan County Public Works Department
<b>Emergency manager</b>	Yes	Chelan County Sherriff’s Office – Emergency Management Division
<b>Grant writers</b>	Yes	Chelan County Public Works Department
<b>Other</b>	No	



**Education and Outreach Capabilities**

Outreach and education capability identifies the connection between government and community members, which opens a dialogue needed for a more resilient community. An assessment of education and outreach capabilities is presented in Table 9-6.

**Table 9-6. Education and Outreach**

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Chelan County Natural Resource Department hosts the Hazard Mitigation Plan on their website
Do you use social media for hazard mitigation education and outreach?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	www.co.chelan.wa.us/flood-control-zone-district
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly specify</li> </ul>	Comprehensive Flood Hazard Management Plan Steering Committee
Do you have any other programs already in place that could be used to communicate hazard-related information?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Email ListServe, social media, U.S. Postal Service
Do you have any established warning systems for hazard events?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Emergency Management Everbridge

**National Flood Insurance Participation**

The District is not an incorporated jurisdiction and has no regulatory authority for development.

**Community Classifications**

Classifications under various community mitigation programs are presented in the following table.

**Table 9-7. Community Classifications**

	Participating?	ID Number	Classification	Date Classified
UEI #	No			
Public Protection	No			
StormReady	No			
Firewise	No			

**Adaptive Capacity for Climate Change**

Given the uncertainties associated with how hazard risk may change with a changing climate, a jurisdiction’s ability to track such changes and adapt as needed is an important component of the mitigation strategy. Table 9-8 summarizes the jurisdiction’s adaptive capacity for climate change.

Table 9-8. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	High
<i>Comment:</i> Section 10 within the FCZD Comprehensive Flood Hazard Management Plan takes climate change into consideration.	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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	Medium
<i>Comment:</i> When scoping capital projects, the FCZD considers climate impacts in the design.	
Participation in regional groups addressing climate risks	Low
<i>Comment:</i>	
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
<i>Comment:</i>	
Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i>	
Identified strategies for adaptation to impacts	Medium
<i>Comment:</i> The FCZD has the opportunity to solicit input from professionals that specialize in climate related impacts.	
Champions for climate action in local government departments	Low
<i>Comment:</i>	
Political support for implementing climate change adaptation strategies	Low
<i>Comment:</i>	
Financial resources devoted to climate change adaptation	Medium
<i>Comment:</i> The FCZD seeks out grants that assist with financial assistance relating to climate adaptation.	
Local authority over sectors likely to be negative impacted	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
Local residents’ knowledge of and understanding of climate risk	Low
<i>Comment:</i>	
Local residents’ support of adaptation efforts	Low
<i>Comment:</i>	
Local residents’ capacity to adapt to climate impacts	Low
<i>Comment:</i>	
Local economy current capacity to adapt to climate impacts	Low
<i>Comment:</i>	
Local ecosystem’s capacity to adapt to climate impacts	Low
<i>Comment:</i>	

- 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.
- 

## 9.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

### Planning and Regulatory Capabilities

The Comprehensive Flood Hazard Management Plan should be updated before joining FEMA’s Community Rating System program.

### Fiscal Capabilities

The capability assessment did not identify a need to expand on this capability.

### Administrative and Technical Capabilities

The capability assessment did not identify a need to expand on this capability.

### Public Education and Awareness Capabilities

The capability assessment did not identify a need to expand on this capability.

### NFIP Capabilities

Special-purpose districts are not eligible to participate in the NFIP, and therefore do not have the capability nor the ability to expand on it.

## 9.5 INTEGRATION REVIEW

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 hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 9.5.1 Existing Integration

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

- **Comprehensive Flood Hazard Management Plan (CFHMP)**—The CFHMP includes an Action Plan that can help mitigate potential hazards. The FCZD will act to ensure consistency between the hazard mitigation plan and the current and future Action Plan. The hazard mitigation plan may identify new

possible funding sources for projects and may result in modifications to the Action Plan based on results of the risk assessment.

### 9.5.2 Opportunities for Future Integration

The capability assessment presented 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:

- **Disaster Debris Management Plan**—Once completed, this plan should be reviewed for future integration into the Comprehensive Flood Hazard Management Plan.
- **Comprehensive Stormwater Plan**—Once updated, this plan should be reviewed for future integration into the Comprehensive Flood Hazard Management Plan.

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan presented in this annex.

## 9.6 RISK ASSESSMENT

### 9.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 9-9 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 hazard mitigation plan.

Table 9-9. Past Natural Hazard Events

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Twenty Five Mile Fire	FM-5414		8/17/2021 – 9/13/2021	
Red Apple Fire	FM-5398		7/13/2021 – 7/20/2021	
Apple Acres Fire	FM-5352		9/7/2020 – 9/15/2020	
Cougar Creek Fire	FM-5270		8/10/2018 – 8/27/2018	
Spromberg Fire	FM-5182		5/23/2017 – 5/27/2017	
Suncrest Fire	FM-5152		8/27/2016 – 8/30/2016	
Sleepy Hollow Fire	FM-5087		6/28/2015	
Chelan Fire Complex	FM-5100		8/13/2015 – 9/10/2015	
Washington Wildfires and Mudslides	DR4243		8/13/2015 – 9/10/2015	

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Eagle Fire	FM-5048		8/20/2013 – 8/28/2013	(\$2.23 million in public assistance grants)
Milepost 10 Fire	FM-5042		8/10/2013 – 8/14/2013	(\$908,893 in public assistance grants)
Colockum Tarps Fire	FM-5038		7/27/2013 – 8/14/2013	(\$6.8 million in public assistance grants)
Table Mountain Fire	FM-5020		9/19/2012	(\$3.03 million in public assistance grants)
Peavine Fire	FM-5018		9/12/2012	(\$285,252 in public assistance grants)
Poison Fire	FM-5017		9/12/2012 – 10/31/2012	(\$684,418 in public assistance grants)
Byrd Canyon Fire	FM-5015		9/10/2012 – 9/19/2012	(\$219,571 in public assistance grants)
1st Canyon Fire	FM-5012		9/9/2012 – 9/19/2012	(\$528,668 in public assistance grants)
Union Valley Fire	FM-2823		7/28/2009 – 8/2/2009	(\$640,028 in public assistance grants)
Severe winter storm, landslides, mudslides, and flooding	DR-1817		1/6/2009 – 1/16/2009	
Easy Street Fire	FM-2711		7/8/2007 – 7/10/2007	(\$1.104 million in public assistance grants)
Severe storms, flooding, landslides, and mudslides	DR-1671		11/2/2006 – 11/11/2006	
Flick Creek Fire	FM-2674		9/9/2006 – 9/16/2016	\$50, (\$80,510 in public assistance grants)000
Dirty Face Fire	FM-2572		7/31/2005 – 8/18/2005	(\$1.061 million in public assistance grants)
Fischer Fire	FM-2543		8/11/2004 – 8/26/2004	(\$3.033 million in public assistance grants)
Deep Harbor Fire	FM-2537		7/30/2004 – 8/5/2004	(\$47,180 in public assistance grants)
Severe storms and flooding	DR-1499		10/15/2003 – 10/23/2003	
Deer Point Fire	FM-2449		7/20/2002 – 7/27/2002	(\$2.573 in public assistance grants)
Rex Creek Fire Complex	FM-2379		8/13/2001 – 8/31/2001	(\$1.008 million in Public Assistance grants)
Severe winter storms, land and mudslides, flooding	DR-1159		12/26/1996 – 2/10/1997	
Severe storms, high wind, and flooding	DR-1079		11/7/1995 – 12/18/1995	
Severe storms and flooding	DR-883		11/9/1990 – 12/20/1990	
Severe storms and flooding	DR-334		6/10/1972	

### 9.6.2 Hazard Risk Ranking

Table 9-10 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 9-10. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	33	High
3	Flooding	33	High
4	Earthquake	32	Medium
5	Drought	22	Medium
6	Landslide	18	Medium
7	Dam or Levee Failure	12	Low
8	Avalanche	6	Low

### 9.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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:

An analysis using Hazus model demographic data (based on 2010 U.S. Census data) identified populations vulnerable to the flood hazard as follows:

- Economically Disadvantaged Populations – An estimated 16.3 percent of the people within the households in the census blocks that intersect the 100-year floodplain are economically disadvantaged, defined as having annual household incomes of \$20,000 or less.
- Population over 65 years of Age – An estimated 20.5 percent of the population in the census blocks that intersection 100-year floodplain are over 65 years of age. Approximately 28 percent of the over 65 population in the floodplain also have incomes considered to be economically disadvantaged and are considered to be extremely vulnerable.
- Populations under 16 Years of Age – An estimated 23.1 percent of the population within census blocks that intersect the 100-year floodplain are under 16 years of age.

In addition, persons with disabilities or others with access and functional needs are more likely to have difficulty responding to a flood or other hazard event than the general population. Local government is the first level of response to assist these individuals. Coordination of efforts to meet their access and functional needs is paramount to life safety efforts. It is important for emergency managers to distinguish between functional and medical needs in order to plan for incidents that require evacuation and sheltering. Knowing the percentage of population with a disability allows emergency management personnel and first responders to have personnel available who can provide services needed by those with access and functional needs. According to the U.S. Census Bureau 2015 American Community Survey estimates, there are 10,164 individuals in Chelan County with

some form of disability, representing 13.6 percent of the county population. Approximately 62 percent (6,290 individuals) are under the age of 65 (U.S. Census, 2015).

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

## 9.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 9-11 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 9-11. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>FCZD-1—Define regional flood hazard management consistency pursuant to RCW 86.12 for the planning area. This definition will strive to exceed minimum NFIP standards and will be developed thru a facilitated planning effort with all cities within Chelan County.</b>	Carried over to updated plan	FCZD-1
<i>Comment:</i> Chapter 5 of the Chelan County’s Comprehensive Flood Hazard Management Plan details regional consistency and are further expanded upon within the policies (Chapter 12). Cities and Chelan County should review regional consistencies to ensure compliance.		
<b>FCZD-2—Chelan County will continue with the Community Rating System (CRS) application and classification process and will mentor Chelan County cities that show interest in CRS participation.</b>	Carried over to updated plan	FCZD-2
<i>Comment:</i> The Insurance Service Office (ISO) conducted a CRS verification visit on August 1, 2018. Joining the CRS program is anticipated to occur in future years once all deficiencies are addressed.		
<b>FCZD-3—Define floodplain mapping criteria that takes into account future flood hazard conditions and/or expected worst case conditions to be applied to all future flood studies within the planning area.</b>	Carried over to updated plan	FCZD-3
<i>Comment:</i> FEMA is currently updating Chelan County flood maps.		
<b>FCZD-4—Identify alternative sources of funding to leverage FCZD funding to perform new flood studies in identified areas of need based on risk.</b>	Carried over to updated plan	FCZD-4
<i>Comment:</i> The FCZD continually seeks out alternative sources of funding through agencies such as FEMA, Department of Ecology, Army Corps of Engineers, Chelan County Public Works Department, and the Surface and Stormwater Management Utility.		
<b>FCZD-5—Inform all future mapping by maintaining a database on known flood risk that tracks historical flood conditions to include, but not limited to: high water marks, recorded damages, photos, observed flood conditions, etc.</b>	Carried over to updated plan	FCZD-5
<i>Comment:</i> The FCZD anticipates developing a protocol for mapping and maintaining a database on known flood risks.		
<b>FCZD-6—Continue to implement the Stormwater Management Program that includes facility identification, design, construction and maintenance within the stormwater utility jurisdictional authority.</b>	Carried over to updated plan	FCZD-6
<i>Comment:</i> Chelan County’s Stormwater Management Program was updated in 2018 and will be updated again in the near future. The County continues to improve upon asset management tracking within the utility boundary. Stormwater infrastructure continues to be added to a new GIS tracking system.		
<b>FCZD-7—For areas outside of the Stormwater Utility, clearly define the stormwater management program based on existing programs and capabilities.</b>	Carried over to updated plan	FCZD-7
<i>Comment:</i> Chelan County Code chapter 13.16 – Stormwater Management for Chelan County, provides stormwater guidance on development projects throughout the county. Stormwater infrastructure data is gathered as time allows and entered into GIS as a means for asset management.		



FCZD-8—Develop a facility maintenance operations and maintenance protocol for FCZD funded facilities as they are developed.	Carried over to updated plan	FCZD-8
<i>Comment:</i> As part of the new debris basin being constructed for No. 1 Canyon and Slide Ridge, an operation and maintenance plan has been developed for each.		
FCZD-9—Investigate solutions to issues associated with modification to the landscape that increase runoff, including sediment, to adjacent properties and infrastructure.	Carried over to updated plan	FCZD-9
<i>Comment:</i> A type of a land use modification tracking system combined with new regulations may be considered in the near future as a means to minimize sediment-laden runoff leaving properties.		
FCZD-10—When requested, FCZD may act as the applicant agent for mitigation grant opportunities for private property requesting to participate in the grant program.	Carried over to updated plan	FCZD-10
<i>Comment:</i> At this time, there hasn't been an opportunity to act as the applicant agent for a private property mitigation grant. If the opportunity presents itself, the District Administrator and Board of Supervisors may consider this opportunity.		
FCZD-11—Develop a flood informational website on the FCZD web page.	Carried over to updated plan	FCZD-11
<i>Comment:</i> In 2023, the FCZD webpage continued to be updated to provide useful information to the citizens of Chelan County. It can be accessed at <a href="http://www.co.chelan.wa.us/flood-control-zone-district">www.co.chelan.wa.us/flood-control-zone-district</a>		
FCZD-12—Deploy public information and outreach program targeting at risk properties within the planning area.	Carried over to updated plan	FCZD-12
<i>Comment:</i> The County continues to disseminate flood risk information through its website; support direct mailings to properties within the special flood hazard area (100-year floodplain); produce an online newsletter and press releases to local media; and provide personal interaction through phone calls, permit counter inquiries and during the permit application and/or review process.		
FCZD-13—Coordinate with FEMA Region X on deploying flood insurance workshops for agents, lenders and citizens within the performance period for this plan.	Carried over to updated plan	FCZD-13
<i>Comment:</i> At this time, coordination with FEMA Region X has not occurred. The County is attempting to correct deficiencies as a result of the CAV. Once complete, opportunities may change.		
FCZD-14—Investigate feasible, cost-effective solutions to flood issues within No. 1 Canyon.	Carried over to updated plan	FCZD-14
<i>Comment:</i> Construction of four new debris basins within the drainway is complete. Additional capital improvements will be on an as-needed basis.		
FCZD-15—Identify a feasible, cost-effective solution to Slide Ridge debris flow issues.	Completed	N/A
<i>Comment:</i> In 2022, the FCZD completed construction to improve Slide Ridge and to correct debris flow issues.		
FCZD-16—Investigate feasible, cost-effective solutions to flood issues within No. 2 Canyon.	Carried over to updated plan	FCZD-15
<i>Comment:</i> The FCZD received a Department of Ecology Flood Control Assistance Account Program (FCAAP) grant for this project and was completed in 2023. This mitigation strategy summarized the hydrology in the canyon, developed capital improvements, and produced a homeowner handbook.		
FCZD-17—Investigate feasible, cost-effective solutions to flood issues within Dry Gulch (south of City of Wenatchee).	Carried over to updated plan	FCZD-16
<i>Comment:</i> Work has not begun on this action item.		
FCZD-18—Investigate feasible, cost effective solutions to flood issues within Mission Creek.	Carried over to updated plan	FCZD-17
<i>Comment:</i> Work has not begun on this action item. The FCZD may begin the process of conducting an inventory of bridge/culvert crossings within the Mission Creek drainage in the near future.		



<p><b>FCZD-19—Investigate feasible solutions to flood issues within Ski Hill Basin.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-18</p>
<p><i>Comment:</i> The analysis is complete and outlined a number of solutions to minimize flooding within the Ski Hill Basin.</p>		
<p><b>FCZD-20—Coordinate with City of Cashmere on options for the maintenance and management of the levee system within the City.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-19</p>
<p><i>Comment:</i> The Cashmere Levee Management Plan was completed in May 2018 and environmental permitting completed. Maintenance is ongoing.</p>		
<p><b>FCZD-21—Maintain database of flood control needs within the planning area as needs become identified for incorporation into future updates and progress reporting to this plan.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-20</p>
<p><i>Comment:</i> The FCZD attempts to investigate flood control needs throughout Chelan County when needed. If warranted, new information will be added to future updates and progress reporting.</p>		
<p><b>FCZD-22—Mitigate flood related risk to publicly owned county bridges.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-21</p>
<p><i>Comment:</i> Chelan County maintains a robust bridge management program that includes inspection and maintenance schedule on necessary bridges. Mitigating flood risk to county bridges is part of this program and is undertaken as funding allows.</p>		
<p><b>FCZD-23—Maintain the county Critical Areas Ordinance (CAO) pursuant to the requirements of the State Growth Management Act.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-22</p>
<p><i>Comment:</i> Chelan County’s Critical Area Ordinance found in Title 11 of the county code is currently in compliance with the State Growth Management Act.</p>		
<p><b>FCZD-24—Identify feasible opportunities with like goals for natural resource protection within identified flood risk areas based on available funding.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-23</p>
<p><i>Comment:</i> This opportunity has not presented itself.</p>		
<p><b>FCZD-25—Coordinate with watershed planning and program implementation to identify opportunities to leverage available funding for like goals between watershed and FCZD plans and programs.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-24</p>
<p><i>Comment:</i> In 2023, opportunities were lacking to coordinate with watershed planning unites to leverage funding.</p>		
<p><b>FCZD-26—Utilizing the best available data, science and technology, enhance the existing flood notification program, striving to identify a notification protocol within systems that have real-time flood threat recognition capability.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-25</p>
<p><i>Comment:</i> Chelan County continues to maintain a series of rain gages that provide the National Weather Service with real-time data to issue emergency alerts. A stream gage was added to the Mad River drainage as a result of the Cougar Creek Fire and a rain gage was relocated to Grouse Mountain as a result of the Twenty-Five Mile Fire. All are connected to the National Weather Service.</p>		
<p><b>FCZD-27—Update the County emergency response plan to reflect any changes to flood notification protocol within the County.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-26</p>
<p><i>Comment:</i> Once Chelan County Emergency Management updates the county’s emergency response plan, flood notification protocols will be added.</p>		
<p><b>FCZD-28—Conduct annual exercises of the County Emergency Operations Plan in compliance with NIMS standards, such that flood response actions of the County are reviewed, evaluated, and adapted based on observations from the exercises.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-27</p>
<p><i>Comment:</i> The FCZD and its partner, the county’s Public Works Department, cooperatively coordinates with Emergency Management and the Sheriff’s Office in an annual tabletop exercise.</p>		

<p><b>FCZD-29</b>—Draft a prioritized list of road segments and bridges that should be elevated above the 100-year flood hazard area and culverts that will fail under flood flow. Upgrade these structures if funding become available.</p>	<p>Carried over to updated plan</p>	<p>FCZD-28</p>
<p><i>Comment:</i> Chelan County Public Works will need to complete a prioritized list of culverts, road sediments and bridges that should be elevated above the 100-year floodplain. Once this list is complete, prioritization will need to occur to determine where funding should be obligated. The county should also continue to work with FEMA, under RiskMAP program, for assistance on flood mapping.</p>		
<p><b>FCZD-30</b>—Integrate the Chelan County Comprehensive Flood Hazard Management Plan into other appropriate plans and programs that can support or enhance the County’s efforts to reduce flood risk as these plans and programs are updated. Examples of such plans/programs would include but are not limited to: Chelan County Hazard Mitigation Plan, Chelan County Comprehensive Plan, and Chelan County Shorelines Master Plan.</p>	<p>Carried over to updated plan</p>	<p>FCZD-29</p>
<p><i>Comment:</i> In 2019, Chelan County completed the Hazard Mitigation Plan, which will utilize information found within the Comprehensive Flood Hazard Management Plan. The FCZD is an official annex or partner in the Hazard Mitigation Plan.</p>		
<p><b>FCZD-31</b>—Utilizing the best available data, science and technology, maintain and enhance, as data becomes available, the Level 2, user-defined HAZUS-MH model that was constructed to support this planning effort.</p>	<p>Carried over to updated plan</p>	<p>FCZD-30</p>
<p><i>Comment:</i> At this time, this action item has not been addressed.</p>		
<p><b>FCZD-32</b>—Establish a sediment management program that includes expanded channel monitoring, establishment of thresholds to trigger actions, and analysis of sediment management action alternatives.</p>	<p>Carried over to updated plan</p>	<p>FCZD-31</p>
<p><i>Comment:</i> The FCZD has not begun to address this action item.</p>		
<p><b>FCZD-33</b>—As FCZD projects are constructed, monitor projects using identified performance measures and adaptive management to track the effectiveness of completed projects to inform the design and implementation of future projects.</p>	<p>Carried over to updated plan</p>	<p>FCZD-32</p>
<p><i>Comment:</i> Since the FCZD inception in 2014 and the adoption of the Comprehensive Plan in 2017, a number of capital construction projects funded by the FCZD have been completed.</p>		
<p><b>FCZD-34</b>—Respond to inquiries and complaints from citizens and other public and private agencies and tracking per Community Rating System requirements.</p>	<p>Carried over to updated plan</p>	<p>FCZD-33</p>
<p><i>Comment:</i> The county’s Community Development and Public Works Departments, in coordination with the FCZD, field and respond to questions/complaints from other public and private agencies. A standard countywide tracking system per CRS requirements will continue to be implemented.</p>		
<p><b>FCZD-35</b>—Maximize federal, state, and local funding opportunities through grant application submittals in support of capital improvement projects, technical studies, and other flood hazard management activities.</p>	<p>Carried over to updated plan</p>	<p>FCZD-34</p>
<p><i>Comment:</i> Chelan County’s FCZD staff continually seeks out applicable grant opportunities.</p>		
<p><b>FCZD-36</b>—Continue to provide flood hazard management technical support to all Chelan County departments and cities proposing activities or projects that affect floodplain functions.</p>	<p>Carried over to updated plan</p>	<p>FCZD-35</p>
<p><i>Comment:</i> The FCZD proactively coordinates with necessary departments within Chelan County to provide necessary flood hazard management technical support. Cities have the ability to contact the FCZD when activities or projects arise that may affect floodplain functions.</p>		

<p><b>FCZD-37—Continue to maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on flood hazard requirements and impacts.</b></p>	<p>Carried over to updated plan</p>	<p>FCZD-36</p>
<p><i>Comment:</i> Chelan County continues to meet the NFIP requirements and will work to maintain compliance.</p>		
<p><b>FCZD-38—Develop and implement a stand-alone floodplain development permit for all new development and/or substantial improvements within the unincorporated County regulated floodplain.</b></p>	<p>Completed</p>	<p>N/A</p>
<p><i>Comment:</i> Chelan County’s Flood Development Permit was implemented August 1, 2018, and is being overseen by the Floodplain Administrator in the Community Development Department, with engineering support provided by the FCZD.</p>		

## 9.8 HAZARD MITIGATION ACTION PLAN

Table 9-12 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 9-13 identifies the priority for each action. Table 9-14 summarizes the mitigation actions by hazard of concern and mitigation type. Mitigation worksheets are on file with the district.

**Table 9-12. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action FCZD-1</b> — Define regional flood hazard management consistency pursuant to RCW 86.12 for the planning area. This definition will strive to exceed minimum NFIP standards and will be developed through a facilitated planning effort with all cities within Chelan County.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	2, 9, 10	3	Chelan County Flood Control Zone District (CC FCZD)	Chelan County Community Development Department (CC CDD), All Chelan County cities	Moderate	Staff Time	Long-Term
<b>Action FCZD-2</b> — Chelan County will continue with the Community Rating System (CRS) application and classification process and will mentor Chelan County cities that show interest in CRS participation.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	5, 6	1, 2, 3, 5	CC FCZD	CC CDD, All Chelan County cities	Moderate	Staff Time	Short-Term
<b>Action FCZD-3</b> — Define floodplain mapping criteria that takes into account future flood hazard conditions and/or expected worst case conditions to be applied to all future flood studies within the planning area.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	7, 10	1, 2, 5	CC FCZD	Chelan County Public Works Department (CC PWD), Surface and Stormwater Management Utility	Low	Staff Time	Long-Term
<b>Action FCZD-4</b> —Identify alternative sources of funding to leverage FCZD funding to perform new flood studies in identified areas of need based on risk.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	4, 9	1	CC FCZD		Low	Staff Time	Short-Term

**Action FCZD-5**— Inform all future mapping by maintaining a database on known flood risk that tracks historical flood conditions to include, but not limited to: high water marks, recorded damages, photos, observed flood conditions, etc.

<b>Hazards Mitigated:</b>	Flood						
New and Existing	1, 6, 7, 9	1, 4, 5, 6	CC FCZD	CC PWD, Surface and Stormwater Management Utility	Low	Staff Time	Short-Term

**Action FCZD-6**— Continue to implement the Stormwater Management Program that includes facility identification, design, construction and maintenance within the stormwater utility jurisdictional authority.

<b>Hazards Mitigated:</b>	Flood, Severe Weather						
New and Existing	4, 6, 8, 9, 10	1, 5	CC FCZD	CC PWD, Surface and Stormwater Management Utility	Moderate	Staff Time	Short-Term

**Action FCZD-7**— For areas outside of the Stormwater Utility, clearly define the stormwater management program based on existing programs and capabilities.

<b>Hazards Mitigated:</b>	Flood, Severe Weather						
Not applicable	4, 6, 9, 10	1, 3, 5	CC PWD	CC FCZD	Moderate	Staff Time, Public Works Road Fund	Long-Term

**Action FCZD-8**— Develop a facility maintenance operations and maintenance protocol for FCZD funded facilities as they are developed.

<b>Hazards Mitigated:</b>	Flood						
New and Existing	2	1, 2	CC FCZD		Moderate	Staff Time	Long-Term

**Action FCZD-9**— Investigate solutions to issues associated with modification to the landscape that increase runoff, including sediment, to adjacent properties and infrastructure.

<b>Hazards Mitigated:</b>	Flood, Landslide, Wildfire, Drought						
Not applicable	7	1, 5	CC FCZD	Chelan County Community Development Department, CC PWD, CCD	Moderate	Staff Time	Short-Term

**Action FCZD-10**— When requested, FCZD may act as the applicant agent for mitigation grant opportunities for private property requesting to participate in the grant program.

<b>Hazards Mitigated:</b>	Flood						
Not applicable	9	1, 2, 3	CC FCZD		Low	Staff Time	Short-Term

**Action FCZD-11**— Develop a flood informational website on the FCZD web page.

<b>Hazards Mitigated:</b>	Flood						
Not applicable	7, 9, 11	5	CC FCZD		Low	Staff Time	Short-Term

**Action FCZD-12**— Deploy public information and outreach program targeting at risk properties within the planning area.

<b>Hazards Mitigated:</b>	Flood						
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Not applicable	7, 9, 11	5	CC FCZD		Low	Staff Time	Short-Term
<b>Action FCZD-13</b> — Coordinate with FEMA Region X on deploying flood insurance workshops for agents, lenders and citizens within the performance period for this plan.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	9	5	CC FCZD		Low	Staff Time	Short-Term
<b>Action FCZD-14</b> — Investigate feasible, cost-effective solutions to flood issues within No. 1 Canyon.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	4	1, 2, 3	CC FCZD	CC PWD, City of Wenatchee	High	BRIC, HMGP, PDM, FMA, HMGP Post-Fire, Staff Time, District CIP Budget	Short-Term
<b>Action FCZD-15</b> — Investigate feasible, cost-effective solutions to flood issues within No. 2 Canyon.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	4, 6, 7	1, 2	CC FCZD	CC PWD, City of Wenatchee	High	BRIC, HMGP, PDM, FMA, HMGP Post-Fire, Staff Time	Long-Term
<b>Action FCZD-16</b> — Investigate feasible, cost-effective solutions to flood issues within Dry Gulch (south of City of Wenatchee).							
<b>Hazards Mitigated:</b> Flood							
Not applicable	4, 6, 7	1, 2	CC FCZD	Surface and Stormwater Management Utility, City of Wenatchee	Moderate	BRIC, HMGP, PDM, FMA, HMGP Post-Fire, Staff Time	Long-Term
<b>Action FCZD-17</b> — Investigate feasible, cost-effective solutions to flood issues within Mission Creek.							
<b>Hazards Mitigated:</b> Flood							
New and Existing	6, 7	1, 2, 3	CC FCZD	City of Cashmere	High	BRIC, HMGP, PDM, FMA, HMGP Post-Fire, Staff Time	Long-Term
<b>Action FCZD-18</b> — Investigate feasible solutions to flood issues within Ski Hill Basin.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	4, 6, 7	1, 2	CC FCZD	CC PWD, City of Leavenworth	High	BRIC, HMGP, PDM, FMA, HMGP Post-Fire, Staff Time	Short-Term
<b>Action FCZD-19</b> — Coordinate with City of Cashmere on options for the maintenance and management of the levee system within the City.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Flood							

Existing	4, 6, 7, 9	1, 2, 3	CC FCZD	CC PWD, City of Cashmere	Moderate	Staff Time, District CIP Budget	Short-Term
<b>Action FCZD-20</b> — Maintain database of flood control needs within the planning area as needs become identified for incorporation into future updates and progress reporting to this plan.							
<b>Hazards Mitigated:</b>	Flood						
Not applicable	7	1	CC FCZD		Low	Staff Time	Short-Term
<b>Action FCZD-21</b> —Mitigate flood related risk to publicly owned county bridges.							
<b>Hazards Mitigated:</b>	Flood						
New and Existing	2, 4, 6	1, 2, 3	CC FCZD	CC PWD	Very High	BRIC, HMGP, FMA, Staff Time, District CIP Budget, County Road Fund, State/Federal grants (FHWA, WSDOT)	Long-Term
<b>Action FCZD-22</b> —Maintain the County Critical Areas Ordinance (CAO) pursuant to the requirements of the State Growth Management Act.							
<b>Hazards Mitigated:</b>	Flood, Earthquakes, Landslides, Avalanche						
Not applicable	10	1, 3	Community Development	CC FCZD	Moderate	Staff Time	Long-Term
<b>Action FCZD-23</b> —Identify feasible opportunities with like goals for natural resource protection within identified flood risk areas based on available funding.							
<b>Hazards Mitigated:</b>	Flood						
Not applicable	4, 6, 7, 9	1, 3, 6	CC FCZD	NRD, CCD, Fisheries Enhancement Groups	Moderate	Staff Time, Local, State, and Federal Grants	Long-Term
<b>Action FCZD-24</b> —Coordinate with watershed planning and program implementation to identify opportunities to leverage available funding for like goals between watershed and FCZD plans and programs.							
<b>Hazards Mitigated:</b>	Flood						
Not applicable	4, 6, 9	1, 2, 3, 6	CC FCZD	NRD, Watershed Planning Groups	Moderate	Staff Time	Long-Term
<b>Action FCZD-25</b> —Utilizing the best available data, science and technology, enhance the existing flood notification program, striving to identify a notification protocol within systems that have real-time flood threat recognition capability.							
<b>Hazards Mitigated:</b>	Flood						
Not applicable	1, 2, 7, 8	1, 4	CC FCZD	CC EM, CC PWD	Very High	Staff Time, District CIP Budget, Private Entity Funding	Short-Term

<b>Action FCZD-26</b> —Update the County emergency response plan to reflect any changes to flood notification protocol within the County.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	1, 2, 7, 8	1, 4	CC FCZD	CC EM	Low	Staff Time	Short-Term
<b>Action FCZD-27</b> —Conduct annual exercises of the County Emergency Operations Plan in compliance with NIMS standards, such that flood response actions of the County are reviewed, evaluated, and adapted based on observations from the exercises.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	1, 2, 7, 8	4	CC FCZD	CC EM, CC PWD, Sheriff, Cities	Low	Staff Time	Short-Term
<b>Action FCZD-28</b> —Draft a prioritized list of road segments and bridges that should be elevated above the 100-year flood hazard area and culverts that will fail under flood flow. Upgrade these structures if funding becomes available.							
<b>Hazards Mitigated:</b> Flood							
New and Existing	4, 6, 7	1, 2, 3	CC FCZD	CC PWD, CC NRD	High	Staff Time	Long-Term
<b>Action FCZD-29</b> —Integrate the Chelan County Comprehensive Flood Hazard Management Plan into other appropriate plans and programs that can support or enhance the County’s efforts to reduce flood risk as these plans and programs are updated. Examples of such plans/programs would include but are not limited to: Chelan County Hazard Mitigation Plan, Chelan County Comprehensive Plan, and Chelan County Shorelines Master Plan.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	7, 9	1, 6	CC FCZD	Community Development, all cities	Low	Staff Time	Long-Term
<b>Action FCZD-30</b> —Utilizing the best available data, science and technology, maintain and enhance as data becomes available the Level 2, user-defined HAZUS-MH model that was constructed to support this planning effort.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	7	1, 2, 3	CC FCZD	CC PWD, CC NRD, applicable cities	High	Staff Time	Short-Term
<b>Action FCZD-31</b> —Establish a sediment management program that includes expanded channel monitoring, establishment of thresholds to trigger actions, and analysis of sediment management action alternatives.							
<b>Hazards Mitigated:</b> Flood							
Not applicable	7	1, 2, 3	CC FCZD	CC PWD, CC NRD, applicable cities	Moderate	Staff Time	Long-Term
<b>Action FCZD-32</b> —As FCZD projects are constructed, monitor projects using identified performance measures and adaptive management to track the effectiveness of completed projects to inform the design and implementation of future projects.							
<b>Hazards Mitigated:</b> Flood							
New and Existing	7	1, 2	CC FCZD	CC PWD	Moderate	Staff Time	Long-Term
<b>Action FCZD-33</b> —Respond to inquiries and complaints from citizens and other public and private agencies and tracking per Community Rating System requirements.							



<b>Hazards Mitigated:</b>	Flood							
Not applicable	7	1, 5	CC FCZD	Community Development, CC PWD, all cities	Low	Staff Time	Short-Term	
<b>Action FCZD-34</b> —Maximize federal, state, and local funding opportunities through grant application submittals in support of capital improvement projects, technical studies, and other flood hazard management activities.								
<b>Hazards Mitigated:</b>	Flood							
New and Existing	7	1, 5	CC FCZD	CC PWD, all cities	Moderate	Staff Time	Long-Term	
<b>Action FCZD-35</b> —Continue to provide flood hazard management technical support to all Chelan County departments and cities proposing activities or projects that affect floodplain functions.								
<b>Hazards Mitigated:</b>	Flood							
Not applicable	7, 9, 10	6	CC FCZD	CC PWD, Community Development, NRD, all cities	Moderate	Staff Time	Short-Term	
<b>Action FCZD-36</b> —Continue to maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on flood hazard requirements and impacts.								
<b>Hazards Mitigated:</b>	Flood							
Not applicable	10	5	CC FCZD	CC PWD, Community Development	Moderate	Staff Time	Long-Term	

Acronyms used here are defined at the beginning of this volume.

**Table 9-13. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
FCZD-1	0	0	3	3	3	1	0	0	0	0	3	0	1	3	3	20	Medium
FCZD-2	0	0	3	3	3	3	0	0	0	0	3	0	3	0	3	21	Medium
FCZD-3	0	0	3	3	3	3	0	0	0	0	3	0	3	3	3	24	Medium
FCZD-4	0	0	3	3	3	3	0	0	0	0	3	0	1	1	3	20	Medium
FCZD-5	0	1	3	3	3	3	0	0	0	1	3	3	3	1	3	27	Medium
FCZD-6	3	3	3	3	3	3	3	1	1	3	3	3	3	3	3	41	High
FCZD-7	3	3	3	3	3	3	0	1	1	3	3	3	3	3	3	38	High
FCZD-8	0	0	3	3	3	3	0	0	0	1	3	3	1	3	3	26	Medium
FCZD-9	3	1	1	3	3	3	0	0	3	1	3	0	3	1	1	26	Medium
FCZD-10	0	0	3	3	3	3	0	0	0	0	3	0	3	0	3	21	Medium
FCZD-11	0	0	3	3	3	3	0	0	0	3	3	0	3	3	3	27	Medium
FCZD-12	0	0	3	3	3	3	0	0	0	3	3	0	3	3	3	27	Medium
FCZD-13	0	0	3	3	3	3	0	0	0	0	3	0	3	3	3	24	Medium
FCZD-14	0	0	3	3	3	1	3	1	1	0	3	0	3	3	3	27	Medium
FCZD-15	0	0	3	3	3	3	3	0	0	0	3	0	3	3	3	27	Medium
FCZD-16	0	0	3	3	3	3	3	1	1	0	3	0	3	3	3	29	Medium
FCZD-17	0	0	3	3	3	3	3	1	1	3	3	0	1	3	3	30	Medium
FCZD-18	0	0	3	3	3	3	1	0	1	0	3	0	3	3	3	26	Medium
FCZD-19	3	3	3	3	3	3	0	0	0	3	3	3	3	3	3	33	High
FCZD-20	0	0	3	3	3	3	0	0	0	0	3	0	3	3	3	24	Medium
FCZD-21	3	3	3	3	3	1	3	1	1	1	3	0	1	3	3	32	High
FCZD-22	0	0	3	3	3	1	0	0	1	0	3	3	1	3	1	22	Medium
FCZD-23	0	0	3	3	3	0	3	3	0	0	3	0	1	3	3	25	Medium

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
FCZD-24	0	0	3	3	3	3	0	0	0	0	3	0	1	3	3	22	Medium
FCZD-25	3	3	3	3	3	1	0	0	0	3	3	3	1	3	3	32	High
FCZD-26	3	0	3	3	3	3	0	0	0	3	3	3	3	3	3	33	High
FCZD-27	3	0	3	3	3	3	0	0	0	0	3	1	3	3	3	28	Medium
FCZD-28	0	0	3	3	3	1	1	0	0	0	0	0	1	3	3	18	Medium
FCZD-29	0	0	3	3	3	1	0	0	0	0	3	0	1	3	3	20	Medium
FCZD-30	0	0	3	3	3	3	0	0	1	0	3	0	3	3	3	25	Medium
FCZD-31	0	0	3	3	3	1	0	0	0	0	3	0	1	3	3	20	Medium
FCZD-32	0	0	3	3	3	3	0	0	0	0	3	0	3	3	3	24	Medium
FCZD-33	0	0	3	3	3	3	0	0	0	0	3	0	3	0	3	21	Medium
FCZD-34	0	0	3	3	3	3	0	0	0	0	3	0	1	0	3	19	Medium
FCZD-35	0	0	3	3	3	3	0	0	0	0	3	0	1	0	3	19	Medium
FCZD-36	0	0	3	3	3	3	0	0	0	0	3	0	3	3	3	24	Medium

Table 9-14. Mitigation Action Classification

Action	Mitigation Classification	High-Ranked Hazard			Medium-Ranked Hazard			Low-Ranked Hazard	
		Wildfire	Flood	Severe Weather	Earthquake	Landslide	Drought	Avalanche	Dam or Levee Failure
FCZD-1	Prevention		●						
FCZD-2	Property Protection		●						
FCZD-3	Prevention, Property Protection, Public Education and Awareness, Climate Resilience		●						
FCZD-4	Prevention		●						
FCZD-5	Property Protection		●						

<b>FCZD-6</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Structural Projects, Climate Resilience		●	●					
<b>FCZD-7</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Structural Projects, Climate Resilience		●	●					
<b>FCZD-8</b>	Prevention, Structural Projects	●	●		●	●	●		
<b>FCZD-9</b>	Prevention, Property Protection, Emergency Services		●						
<b>FCZD-10</b>	Prevention		●						
<b>FCZD-11</b>	Public Education and Awareness		●						
<b>FCZD-12</b>	Public Education and Awareness		●						
<b>FCZD-13</b>	Public Education and Awareness		●						
<b>FCZD-14</b>	Prevention, Property Protection, Structural Projects, Climate Resilience		●						
<b>FCZD-15</b>	Prevention, Property Protection, Natural Resource Protection, Structural Projects, Climate Resilience		●						
<b>FCZD-16</b>	Prevention, Property Protection, Natural Resource Protection, Structural Projects, Climate Resilience		●						
<b>FCZD-17</b>	Prevention, Property Protection, Natural Resource Protection, Structural Projects, Climate Resilience		●						
<b>FCZD-18</b>	Prevention, Property Protection, Structural Projects, Climate Resilience		●						
<b>FCZD-19</b>	Prevention, Property Protection, Natural Resource Protection		●						●
<b>FCZD-20</b>	Prevention		●						
<b>FCZD-21</b>	Prevention, Property Protection, Natural Resource Protection, Structural Projects, Climate Resilience		●						
<b>FCZD-22</b>	Prevention		●		●	●		●	
<b>FCZD-23</b>	Natural Resource Protection		●						
<b>FCZD-24</b>	Prevention, Natural Resource Protection		●						
<b>FCZD-25</b>	Public Education and Awareness, Emergency Services		●						
<b>FCZD-26</b>	Prevention		●						
<b>FCZD-27</b>	Public Education Awareness, Emergency Services		●						

<b>FCZD-28</b>	Prevention, Property Protection, Structural Projects, Climate Resilience			●					
<b>FCZD-29</b>	Prevention			●					
<b>FCZD-30</b>	Prevention			●					
<b>FCZD-31</b>	Prevention, Natural Resource Protection			●					
<b>FCZD-32</b>	Prevention			●					
<b>FCZD-33</b>	Prevention			●					
<b>FCZD-34</b>	Prevention			●					
<b>FCZD-35</b>	Prevention			●					
<b>FCZD-36</b>	Prevention			●					

## 9.9 PUBLIC OUTREACH

Table 9-15 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 9-15.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
FCZD Annual Progress Report	Annual	2
Social Media	As needed	2
Press Releases	As needed	2

## 9.10 INFORMATION SOURCES USED FOR THIS ANNEX

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

- Comprehensive Flood Hazard Management Plan**—The CFHMP recommends regional policies, programs and projects to reduce the risk to people and property from river flooding, alluvial fans, and channel migration in Chelan County.

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.

## 10. WENATCHEE VALLEY FIRE DEPARTMENT

### 10.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Brian Brett, Fire Chief  
 731 N. Wenatchee Ave.  
 Wenatchee, WA 98801  
 509-662-4734  
 bbrett@chelancountyfire.com

**Alternate Point of Contact**

Hillary Heard, Community Wildfire Liaison  
 731 N. Wenatchee Ave.  
 Wenatchee, WA 98801  
 509-662-4734  
 hheard@wvfire.org

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 10-1.

**Table 10-1.** Local Hazard Mitigation Planning Team Members

Name	Title
Brian Brett	Fire Chief
Kurt Blanchard	Deputy Chief-Fire Marshal
Hillary Heard	Community Wildfire Liaison

### 10.2 JURISDICTION PROFILE

#### 10.2.1 Overview

The Wenatchee Valley Fire Department was established in October 2022 after the citizens in our districts approved the merger of Chelan County Fire District 1 and Douglas County Fire District 2, resulting in a Regional Fire Authority. The Governing Board for the department consists of the three elected or appointed commissioners of Chelan County Fire Protection District No. 1 and the three elected or appointed commissioners of Douglas County Fire Protection District No. 2.

Our jurisdiction is comprised of 30,451 parcels consisting of 24% residential, 5% commercial, and 71% open/agricultural space encompassing 211 square miles with an assessed valuation of \$15 billion. The 2024 Operating Budget is \$26 million dollars consisting of revenue derived primarily from property taxes. In 2024, the fire levy rate is \$1.43 per \$1,000 of assessed valuation.

The Wenatchee Valley Fire Department is an all-risk agency responding to fires, emergency medical calls, vehicle accidents, hazardous materials incidents and technical rescues.

#### 10.2.2 Service Area

The Wenatchee Valley Fire Department serves a population of 81,000 residents residing in the City of Wenatchee, City of East Wenatchee, Malaga, Rock Island and unincorporated areas of Chelan and Douglas

County surrounding these areas. Our service area covers 211 square miles and includes urban, suburban, industrial, agricultural, forest and shrub type landscapes. Nearly all the land area within the City of Wenatchee and East Wenatchee has been developed, forcing new construction onto unincorporated county parcels with steep topography, and potential water supply and access issues. Department operations are conducted from seven 24-hour staffed stations as well as three auxiliary stations and additional apparatus.

### 10.2.3 Assets

Table 10-2 summarizes the assets of the District and their value.

**Table 10-2. Special Purpose District Assets**

Asset	Value
<b>Property</b>	
17.95 acres of land	N/A
<b>Critical Infrastructure and Equipment (Listed is CCFD1 Units and Values from 2020)</b>	
Unit 101 2011 Ford F 150	\$45,000
Unit 102 2008 Ford F-250	\$45,000
Unit 103 2006 Ford F-250	\$45,000
Unit 105 2006 Ford Explorer	\$7,500
Unit 108 2008 Chevy Trailblazer	\$45,000
Unit 109 2008 Ford F-250 Diesel	\$45,000
Unit 110 2004 Ford F-350 Gas	440,000
Unit 111 2007 Chevy 1500	\$45,000
Unit 112 2017 Ford F-250	\$50,000
Unit 113 2017 Ford F-250	\$50,000
Unit 114 2018 Chevy Tahoe	\$50,000
Unit 201 2007 KME Predator	\$450,000
Unit 203 1995 Int/E-One 4800	\$200,000
Unit 204 2007 KME Predator	\$450,000
Unit 205 2007 KME Predator	\$450,000
Unit 206 2002 E-One Typhoon	\$450,000
Unit 207 2001 H&W 13	\$450,000
Unit 209 1984 Seagraves	\$125,000
Unit 210 2013 HME Model 18	\$450,000
Unit 211 2004 American LaFrance	\$450,000
Unit 212 2004 American LaFrance	\$450,000
Unit 301 1995 International 4800	\$195,000
Unit 302 1996 Ford F-350	\$70,000
Unit 303 2004 Humvee M1113	\$70,000
Unit 304 2004 Humvee M1113	\$70,000
Unit 305 2004 Humvee M1113	\$70,000
Unit 306 1995 International 4800	\$195,000
Unit 307 1996 Ford F-350	\$70,000



Unit 309 2012 Ford F-550 Rescue	\$225,000
Unit 310 2018 Ford F-550 Brush/Rescue	\$75,000
Unit 401 1995 E-One Cyclone 75'	\$675,000
Unit 402 1995 E-One Cyclone 100'	\$800,000
Unit 501 1995 International 4800	\$230,000
Unit 502 2008 Kenworth T-370	\$230,000
Unit 503 1985 AMG	\$230,000
Unit 601 1994 F-350 Plow	\$20,000
Unit 602 1994 F-350 Shop	\$3,500
Unit 603 1985 Chev Plow	\$1,000
Unit 701 2009 Wells Cargo	\$5,000
Unit 702 1991 Light Plant	\$1,000
Unit 703 1975 GMC	\$1,000
Unit 704 1971 International	\$1,000
Unit 705 1946 Chevy	\$40,000
Unit 706 2016 Morbark Chipper M12R	\$35,000
(Out of service) Unit 208 1994 E-One/Mac	\$350,000
(Out of service) Unit 308 1987 Ford F-350	\$70,000
<b>Total:</b>	<b>\$8,525,000</b>
<b>Critical Facilities</b>	
Station 10, 731 N. Wenatchee Avenue, Wenatchee	\$6,081,075
Station 1, 377 Eastmont Avenue, East Wenatchee	\$4,054,050
Station 2, 200 Airport Way, East Wenatchee	\$1,066,797
Station 3, 1600 Douglas Street, Rock Island	\$4,360,473
Station 4, 240 35th Street NW East Wenatchee	\$7,174,510
Station 11, 206 Easy Street, Wenatchee	\$2,611,244
Station 12, 408 N. Western Avenue, Wenatchee	\$1,345,829
Station 13, 1836 S. Mission Avenue, Wenathcee	\$2,142,855
Station 14, 4852 Squilchuck Road, Wenatchee	\$433,688
Station 17, 3760 West Malaga Road, Malaga	\$5,769,928
Station 3-Former Station 3 in Rock Island (now a storage facility)	\$300,000
<b>Total:</b>	<b>\$35,250,924</b>

### 10.3 CURRENT TRENDS

The department responds to approximately 6,000 calls per year including EMS, structure fire, wildland fire, hazardous materials, and technical rescue.

### 10.4 CAPABILITY ASSESSMENT

An assessment of the district’s current capabilities was conducted to identify opportunities to expand, initiate or integrate capabilities in order 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 Existing Capabilities

#### Planning and Regulatory Capabilities

Jurisdictions develop plans and programs and implement rules and regulations to protect and serve residents. When effectively prepared and administered, these plans, programs and regulations can support the implementation of mitigation actions. Table 10-3 summarizes existing codes, ordinances, policies, programs, or plans that are applicable to this hazard mitigation plan.

**Table 10-3. Planning and Regulatory Capability**

Plan, Study or Program	Date of Most Recent Update	Comment
Capital Replacement Plan	2023	Updated annually
Community Wildfire Protection Plan Chelan County	2020	Currently being updated
Community Wildfire Area Protection Plan Squilchuck Valley	2020	Amended in 2015 and integrated into the 2020 Hazard Mitigation Plan Update

#### Fiscal, Administrative and Technical Capabilities

Fiscal capability is an indicator of a jurisdiction’s ability to fulfill the financial needs associated with hazard mitigation projects. An assessment of fiscal capabilities is presented in Table 10-4. Administrative and technical capabilities represent a jurisdiction’s staffing resources for carrying out the mitigation strategy. An assessment of administrative and technical capabilities is presented in Table 10-5.

#### Education and Outreach Capabilities

Outreach and education capability identifies the connection between government and community members, which opens a dialogue needed for a more resilient community. An assessment of education and outreach capabilities is presented in Table 10-6.

**Table 10-4. Fiscal Capability**

Financial Resource	Accessible or Eligible to Use?
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas, or Electric Service	No
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Federal Grant Programs	Yes
Other	Yes Private Foundation Grants/Donations

**Table 10-5. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	City/County Planning-Building Departments
Engineers or professionals trained in building or infrastructure construction practices	Yes	City/County Planning-Building, Engineering Departments
Planners or engineers with an understanding of natural hazards	Yes	City/County Planning-Building, Engineering Departments
Staff with training in benefit/cost analysis	No	No utilize consultants for BCA Analysis
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	Rivercom/City/County Planning-Building Departments
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Chelan County Emergency Management
Grant writers	No	Internal WVFD staff write grants
Other	No	

**Table 10-6. Education and Outreach**

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Linked mitigation information on the WVFD wildfire website
Do you use social media for hazard mitigation education and outreach?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
<ul style="list-style-type: none"> <li>If yes, please briefly specify</li> </ul>	
Do you have any other programs already in place that could be used to communicate hazard-related information?	No
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	
Do you have any established warning systems for hazard events?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	

**National Flood Insurance Participation**

The District is not an incorporated jurisdiction and has no regulatory authority for development.

**Community Classifications**

Classifications under various community mitigation programs are presented in the following table.

**Table 10-7. Community Classifications**

	Participating?	ID Number	Classification	Date Classified
UEI #	Yes	XBPTWX7C26R8	N/A	N/A
Public Protection	Yes	FDID 04D01	N/A	N/A
StormReady	No	N/A	N/A	N/A
Firewise	Yes	N/A	N/A	N/A

**Adaptive Capacity for Climate Change**

Given the uncertainties associated with how hazard risk may change with a changing climate, a jurisdiction’s ability to track such changes and adapt as needed is an important component of the mitigation strategy. Table 10-8 summarizes the jurisdiction’s adaptive capacity for climate change.

**Table 10-8. Adaptive Capacity for Climate Change**

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

Public Capacity	
Local resident’s knowledge of and understanding of climate risk	Unsure
<i>Comment:</i>	
Local residents’ support of adaptation efforts	Unsure
<i>Comment:</i>	
Local residents’ capacity to adapt to climate impacts	Unsure
<i>Comment:</i>	
Local economy current capacity to adapt to climate impacts	Unsure
<i>Comment:</i>	
Local ecosystem’s capacity to adapt to climate impacts	Unsure
<i>Comment:</i>	

- 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.

### 10.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning and Regulatory Capabilities

After review of the current capabilities, expansion of capabilities is not required.

#### Fiscal Capabilities

After review of the current capabilities, expansion of capabilities is not required.

#### Administrative and Technical Capabilities

After review of the current capabilities, expansion of capabilities is not required.

#### Public Education and Awareness Capabilities

After review of the current capabilities, expansion of capabilities is not required.

#### NFIP Capabilities

Special-purpose districts are not eligible to participate in the NFIP, and therefore do not have the capability nor the ability to expand on it.

## 10.5 INTEGRATION WITH OTHER PLANNING INITIATIVES

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 in Section 1.10 were used to provide

information on integration. The progress reporting process described in Volume 1 will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 10.5.1 Existing Integration

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

- **Squilchuck Community Wildfire Protection Plan** – Originally drafted in 2005 and updated in 2015. Identifies wildfire risk, mitigation, and response activities for the Squilchuck Valley.
- **Chelan County Fire Plan** – CWPP drafted in 2008. Currently in process of being updated with a completion date in 2019. The plan identifies wildfire risk, hazards, and mitigation actions.
- **Chelan County Comprehensive Emergency Management Plan** – Updated in 2015. The plan addresses specific emergency responses information inclusive of natural hazards.

### 10.5.2 Opportunities for Future Integration

The capability assessment presented in this annex identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **City of Wenatchee Urban Area Comprehensive Plan** – Drafted in 2017 to incorporate and adopt various city and county plans, studies and technical documents. While cited in the plan, wildfire hazard is not specifically addressed with action items.
- **City of Wenatchee Community Wildfire Protection Plan** – The City does not have a CWPP; however, intends to develop one with cooperation from local agencies including Chelan County Fire District #1. The Wenatchee CWPP will integrate into the Urban Area Comprehensive Plan and address wildfire related issues through action items developed by the planning committee.
- **Chelan County Fire District #1 Capital Replacement Plan** – The fire district is in the process of relocating fire stations to better serve the entire fire district; which includes the City of Wenatchee. Additionally, replacement of capital items (e.g. apparatus) are identified on a replacement schedule to meet the needs of the district and minimize deficiency points, that may be levied, by Washington State Survey and Rating.

## 10.6 RISK ASSESSMENT

### 10.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 10-9 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 hazard mitigation plan.

**Table 10-9. Past Natural Hazard Events**

Type of Event	Incident Period Date	Damage Assessment
Castlerock Fire	09/26/1992	\$5,000,000
Dinkleman Fire	09/06/1988	\$Undetermined
Easy Street Fire	07/11/2007	\$50,000
Swakane Fire	07/10/2010	\$Undetermined
Wenatchee Complex	09/08/2012	\$20,000
Colockum-Tarps Fire	07/27/2013	\$Undetermined
Milepost 10 Fire	08/09/2013	\$Undetermined
Sleepy Hollow Fire	06/28/2015	\$Undetermined
Cramner Road Landslide	05/06/2016	\$400,000
Horselake Fire	09/04/2016	\$50,000
Monitor Fire	11/01/2017	\$Undetermined
Cougar Creek Fire	2018	\$Undetermined 47,712 acres
Rocky Reach Fire	7/23/2018	No structures damaged 3,386 acres
COVID-19	2020	\$Undetermined
Red Apple Fire	7/14/2021	No structures damaged 11,000 acres
Rooster Comb Fire	8/29/2021	No structures damaged ? acres
Methow Street Fire	6/?/2023	No structures damaged 35 acres
Badger Mountain Rd. Fire	7/20/2023	No structures damaged 35 acres?
Webb Fire	6/4/2024	No structures damaged 504 acres
Balsamroot Fire	7/5/2024	No structures damaged 305 acres

### 10.6.2 Hazard Risk Ranking

Table 10-10 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 10-10. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	45	High
3	Earthquake	32	Medium
4	Flood	18	Medium
5	Landslide	18	Medium
6	Drought	6	Low
7	Dam or Levee Failure	6	Low
8	Avalanche	0	Low

### 10.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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:

- Wildfire
- Post fire flooding and debris flows
- Air quality issues from wildfire smoke

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

## 10.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 10-11 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 10-11. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>FD-1—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</b>	Carried over to updated plan	FD1-1
<i>Comment: WVFD is participating in plan maintenance protocols.</i>		
<b>FD-2—Integrate the hazard mitigation plan into other plans, ordinances and programs within the community.</b>	Carried over to updated plan	FD1-2
<i>Comment: Integration into other plans, ordinances and programs is ongoing.</i>		
<b>FD-3—Purchase backup generators.</b>	Carried over to updated plan	FD1-3
<i>Comment: Not yet implemented</i>		
<b>FD-4—Create a fuels reduction zone with landowners in collaboration with other fire service agencies along all roadways identified as evacuation routes.</b>	Carried over to updated plan	FD1-4
<i>Comment: Fuels reduction work is ongoing.</i>		



FD-5—Provide landowners with training pertaining to fuels management and secure matching grants to provide financial assistance to those private landowners in need of reducing fire risk on their properties.	Carried over to updated plan	FD1-5
<i>Comment:</i> WVFD has secured funds to assist landowners to train on fuels management work in the fall of 2024		
FD-6—Seek funding for and maintain address signage to identify residence locations.	Carried over to updated plan	FD1-9
<i>Comment:</i> WVFD Volunteer Association continues to provide low-cost address signs to residents in our district.		
FD-7—Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for development of emergency water access or storage facilities at identified locations.	Carried over to updated plan	FD1-14
<i>Comment:</i> Not yet implemented		
FD-8—Equip trailer for mobile incident command post.	Removed; no longer feasible	N/A
<i>Comment:</i> Chelan County Emergency Management has a mobile command post which WVFD can utilize for large scale hazard events, such as wildfire, floods, etc.		
FD-9—Improve early notification of emergencies and subsequent evacuation plans.	Carried over to updated plan	FD1-10
<i>Comment:</i> WVFD is supportive of improving early notification of emergencies and evacuation plans and inform residents of resources to register for these services and ways to create evacuations plans (Ready, Set, Go Program is an example of this).		
FD-10—Adopt a county wide WUI code to reduce the impact on homes during wildfire events.	Carried over to updated plan	FD1-7
<i>Comment:</i> WVFD is supportive of adopting a WUI code in the cities and counties we serve.		
FD-11—Coordinate with Washington State Department of Transportation to designate alternate evacuation routes.	Carried over to updated plan	FD1-6
<i>Comment:</i> Not yet implemented		
FD-12—Develop alternative egress routes for communities limited to single ingress and egress points, or major fuel reduction along paths of egress.	Carried over to updated plan	FD1-6
<i>Comment:</i> Not yet implemented		
FD-13—Develop sub-planning areas within the fire district to determine probable resource needs for wildfire response.	Carried over to updated plan	FD1-11
<i>Comment:</i> Not yet implemented		
FD-14—Collect data to rate the vulnerabilities of structures and utilize the data to engage property owners to take action as well as provide data to Incident Management Teams.	Carried over to updated plan	FD1-12
<i>Comment:</i> Not yet implemented		
FD-15—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.	Carried over to updated plan	FD1-8
<i>Comment:</i> Not yet implemented		

## 10.8 HAZARD MITIGATION ACTION PLAN

Table 10-12 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 10-13 identifies the priority for each action. Table 10-14 summarizes the mitigation actions by hazard of concern and mitigation type. Completed action worksheets are on file with the district.

**Table 10-12. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action FD1-1</b> — Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	1, 2	1, 2	Wenatchee Valley Fire Department	CCD, CC NRD	Low	Staff Time	Short-Term
<b>Action FD1-2</b> — Integrate the hazard mitigation plan into other plans, ordinances, and programs within the community.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New	1,2	1,2	Chelan County	Wenatchee Valley Fire Department	Moderate	HMGP, HMGP Post-Fire	Short-Term
<b>Action FD1-3</b> — Purchase backup generators for fire district facilities.							
<b>Hazards Mitigated:</b> Dam or Levee Failure, Earthquake, Flood, Severe Weather, Wildfire							
New and Existing	2, 8	1, 2	Wenatchee Valley Fire Department		High	HMGP, HMGP Post-Fire	Short-Term
<b>Action FD1-4</b> —Create a fuels reduction zone with landowners in collaboration with other fire service agencies along all roadways identified as evacuation routes.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	6, 8	1, 2, 3, 4, 5, 6	Wenatchee Valley Fire Department	CCD, CC NRD, Washington Department of Natural Resources, local FirewiseUSA communities	Moderate	HMGP, HMGP Post-Fire	Short-Term

**Action FD1-5**— Fuels reduction training for private landowners and communities and provides financial assistance for reducing the risk of wildfire.

**Hazards Mitigated:** Wildfire

Not applicable	3, 4, 5, 6, 9, 11	1, 2, 3, 4, 5, 6	Wenatchee Valley Fire Department	CCD, CC NRD, Washington Department of Natural Resources, local FirewiseUSA communities	Moderate	HMGP, PDM, HMGP Post-Fire	Short-Term
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**Action FD1-6**— Create a fuels reduction zone along all roadways identified as evacuation routes in collaboration with private landowners, local agencies and other fire service agencies (local, state and federal). Work to develop evacuation routes to communities with single ingress and egress routes and work with Washington Dept. of Transportation (WADOT) to designate alternative evacuation routes.

<b>Hazards Mitigated:</b> Wildfire							
New and Existing	2, 3, 4, 5, 6, 9	1, 2, 4, 5, 6	Wenatchee Valley Fire Department	CCD, CC NRD, Washington Department of Natural Resources, local FirewiseUSA communities, and private homeowners	High	HMGP, HMGP Post-Fire	Short-Term

**Action FD1-7**— Adoption of a countywide Wildland Urban Interface Code (WUI Code).

<b>Hazards Mitigated:</b> Severe Weather, Wildfire							
New and Existing	3, 4, 5, 6, 9, 10, 11	1, 3, 5, 6	Wenatchee Valley Fire Department	Local, state, and federal partners and private homeowners	High	BRIC, HMGP, PDM, HMGP Post-Fire	Long-Term

**Action FD1-8**— Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses and are not up to current hazard codes.

<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 3, 6, 8, 9	1, 2, 3, 4, 5, 6	Wenatchee Valley Fire Department	Local, state, and federal partners and private homeowners	Very High	BRIC, HMGP, PDM, HMGP Post-Fire	Short-Term

**Action FD1-9**— Seek funding for and maintain address signage to identify residence locations.

<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
	11	1, 2, 3, 4, 5, 6	Wenatchee Valley Fire Department	Local, state, and federal partners and private homeowners	Low	HMGP, PDM, HMGP Post-Fire	Short-Term

**Action FD1-10**— Improve early notification of emergencies and subsequent evacuation plans.

<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
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New and Existing	1, 2, 3, 4, 8, 11	1, 2, 3, 4, 5, 6	Wenatchee Valley Fire Department	Local, state, and federal partners	High	HMGP, PDM, HMGP Post-Fire	Long-Term
<b>Action FD1-11</b> — Develop sub-planning areas within the fire district to determine probable resource needs for wildfire response.							
<b>Hazards Mitigated:</b> Wildfire							
Existing	1, 2, 3, 4, 8, 11	1, 2, 3, 4, 5	Wenatchee Valley Fire Department	CCD, CC NRD, Washington Department of Natural Resources, local FirewiseUSA communities	Moderate	HMGP, PDM, HMGP, Post-Fire	Short-Term
<b>Action FD1-12</b> — Collect data to rate the vulnerabilities of structures and utilize the data to engage property owners to take action as well as provide data to Incident Management Teams.							
<b>Hazards Mitigated:</b> Wildfire							
Existing	7, 9, 11	1, 2, 3, 4, 5, 6	Wenatchee Valley Fire Department	Local, state, and federal partners	High	HMGP, PDM, HMGP Post-Fire	Long-Term
<b>Action FD1-13</b> — Hire Community Wildfire Program Assistant to increase public awareness and participation in prevention and risk reduction programs and projects aimed at increasing the communities’ ability to become more resilient to wildfire.							
<b>Hazards Mitigated:</b> Wildfire							
Not applicable	1, 2, 3, 4, 5, 6, 7, 8, 9, 11	1, 3, 4, 5, 6	Wenatchee Valley Fire Department	Local, state, and federal partners	High	HMGP, PDM, FMA, HMGP Post-Fire, CWDG	Short-Term
<b>Action FD1-14</b> — Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for development of emergency water access or storage facilities at identified locations.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	2, 7, 8	1, 2, 3, 4	Wenatchee Valley Fire Department	CCD, CC NRD, Washington Department of Natural Resources, local FirewiseUSA communities	Moderate	HMGP, PDM, HMGP Post-Fire	Short-Term

Acronyms used here are defined at the beginning of this volume.

**Table 10-13.** Mitigation Action Priority

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
FD1-1	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD1-2	3	3	3	3	0	1	3	0	1	3	1	1	1	3	1	27	Medium
FD1-3	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD1-4	3	3	3	3	3	3	3	3	1	3	3	1	3	3	3	41	High
FD1-5	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD1-6	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD1-7	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD1-8	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD1-9	3	3	3	3	3	3	3	1	1	3	3	3	3	3	3	41	High
FD1-10	3	3	3	3	1	3	3	1	3	3	3	3	3	3	3	41	High
FD1-11	3	3	3	3	3	1	1	1	3	3	3	3	3	3	3	39	High
FD1-12	3	3	1	3	3	1	3	3	3	3	3	1	3	3	3	39	High
FD1-13	3	3	3	3	3	1	3	3	3	3	1	0	3	3	3	38	High
FD1-14	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45	High

**Table 10-14.** Mitigation Action Classification

Action	Mitigation Classification	High-Ranked Hazard		Medium-Ranked Hazard			Low-Ranked Hazard		
		Wildfire	Severe Weather	Earthquake	Flood	Landslide	Drought	Dam or Levee Failure	Avalanche
<b>FD1-1</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●
<b>FD1-2</b>	Community Capacity Building	●	●	●	●	●	●	●	●
<b>FD1-3</b>	Property Protection, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●	●	●				●	
<b>FD1-4</b>	Property Protection, Public Education and Awareness, Emergency Services	●							
<b>FD1-5</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●							
<b>FD1-6</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●							
<b>FD1-7</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●						
<b>FD1-8</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●
<b>FD1-9</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●
<b>FD1-10</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●	●	●	●	●	●	●	●

<b>FD1-11</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●							
<b>FD1-12</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●							
<b>FD1-13</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience	●							
<b>FD1-14</b>	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●							

## 10.9 INFORMATION SOURCES USED FOR THIS ANNEX

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. CHELAN COUNTY FIRE DISTRICT #3

## 11.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Mike Smith, Captain  
 228 Chumstick Hwy  
 Leavenworth, WA 98826  
 Telephone: 509-548-7711  
 e-mail Address: [mike@chelanfd3.org](mailto:mike@chelanfd3.org)

**Alternate Point of Contact**

Stephanie Kuch, Office Manager  
 228 Chumstick Hwy  
 Leavenworth, WA 98826  
 Telephone: 509-548-7711  
 e-mail Address: [Stephanie@chelanfd3.org](mailto:Stephanie@chelanfd3.org)

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 11-1.

**Table 11-1.** Local Hazard Mitigation Planning Team Members

Name	Title
Mike Smith	Captain – Fire Prevention
Kelly O’Brien	Fire Chief
Stephanie Kuch	Office Manager

## 11.2 JURISDICTION PROFILE

### 11.2.1 Overview

Chelan County Fire District #3 was formed in 1947 to provide fire protection to the unincorporated area surrounding the City of Leavenworth. In 2013, the City of Leavenworth was annexed into the District. CCFD3 is a combination department with seven full-time staff and 40 volunteers. The District is funded primarily through the collection and distribution of property taxes.

Chelan County Fire District #3 is governed by a three-member board of Commissioners. Each Commissioner is elected to a six-year term. The Commissioners’ terms are staggered at two-year increments. The Board of Commissioners of Chelan County Fire District #3 assumes responsibility for the adoption of this plan; the Fire Chief will oversee its implementation.

The District participates in the Public Protection Class Rating System and currently has a rating of 5 in the City limits and 7 in the District (2023 WSRB).

### 11.2.2 Service Area

The district service area covers 28 square miles serving a population of 4,861. The boundaries are generally the City of Leavenworth, the Icicle Valley, and the Chumstick Valley with the adjacent canyons. The population of

the City of Leavenworth has been relatively stable over the last 10 years. However, tourism to the area has continued to grow with as many as 30,000 to 50,000 visitors per weekend for festivals. Development of previously undeveloped land has continued to fuel the construction industry.

CCFD3 is the primary/first due response for the area adjacent to 11 miles of Burlington Northern Santa Fe rail line. This line is a major shipping route between the east and west sides of Washington State and sees more than 25 trains per day, including twice daily passenger train with service to Seattle and Chicago.

### 11.2.3 Assets

Table 11-2 summarizes the assets of the District and their value.

**Table 11-2. Special Purpose District Assets**

Asset	Value
<b>Property</b>	
2 acres of land	350,000
<b>Equipment</b>	
Command Vehicles (4 x P/U or SUV)	155,000
Rescue Apparatus	400,000
Type 1 Structure Engine x 3	700,000
Water Tender x 2	400,000
Brush Truck x 3	330,000
Ladder Truck	250,000
<b>Total:</b>	<b>2,585,000</b>
<b>Critical Facilities</b>	
Station 31 , 228 Chumstick Hwy Leavenworth, WA	3,000,000
Station 32, 15415 Camp 12 Rd Leavenworth, WA	250,000
<b>Total:</b>	<b>3,250,000</b>

## 11.3 CURRENT TRENDS

In 2023, CCFD3 responded to 722 incidents. CCFD3 has experiences in single and multiple major weather-related events (areas of flooding, snow or wind). CCFD3 also routinely experiences wildfire incidents. Wildland and interface responses can easily escalate into a significant wildfire if these fires are not extinguished immediately from July through September. The last several seasons have seen multiple Type 1 and 2 wildfires within our mutual response area. According to the Leavenworth Area Community Wildfire Protection Plan, 98% of the forest in our jurisdiction has a higher-than-normal fuel load. Headwaters Economics ranks Chelan County in the top 8% for wildfire risk when compared to counties in 11 western states. Over the past 20 years, 33% of Chelan County's total land area has been impacted by wildfire, requiring State Mobilization of structure protection resources and trained and safely equipped structural firefighters. CCFD3 feels the trend of more frequent and longer duration weather-related incidents will continue.

## 11.4 CAPABILITY ASSESSMENT

### 11.4.1 Existing Capabilities

An assessment of the district’s current capabilities was conducted to identify opportunities to expand, initiate or integrate capabilities in order to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

#### Planning and Regulatory Capabilities

Jurisdictions develop plans and programs and implement rules and regulations to protect and serve residents. When effectively prepared and administered, these plans, programs and regulations can support the implementation of mitigation actions. Table 11-3 summarizes existing codes, ordinances, policies, programs or plans that are applicable to this hazard mitigation plan.

**Table 11-3. Planning and Regulatory Capability**

Plan, Study or Program	Date Last Updated
Chelan County WUI code	Unknown
Fire Advisory Board tracks weather trends and implements fire restrictions within Chelan County	Unknown
Community Wide Protection Plan (CWPP)	Unknown
City of Leavenworth WUI Code	2021
CCFD3 Structure Protection Plan	On-going

#### Fiscal, Administrative and Technical Capabilities

Fiscal capability is an indicator of a jurisdiction’s ability to fulfill the financial needs associated with hazard mitigation projects. An assessment of fiscal capabilities is presented in Table 11-4. Administrative and technical capabilities represent a jurisdiction’s staffing resources for carrying out the mitigation strategy. An assessment of administrative and technical capabilities is presented in Table 11-5.

**Table 11-4. Fiscal Capability**

Financial Resource	Accessible or Eligible to Use?
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas, or Electric Service	No
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Federal Grant Programs	Yes
Other	No

**Table 11-5. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Agency/Position
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	Fire Chief
Grant writers	Yes	Firefighter/Grant Coordinator
Other	No	

**Education and Outreach Capabilities**

Outreach and education capability identifies the connection between government and community members, which opens a dialogue needed for a more resilient community. An assessment of education and outreach capabilities is presented in Table 11-6.

**Table 11-6. Education and Outreach**

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
• If yes, please briefly describe	Links to various resources
Do you use social media for hazard mitigation education and outreach?	YES
• If yes, please briefly describe	Facebook Page/Website
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
• If yes, please briefly specify	Group of community members meet to discuss ways to increase community engagement and awareness of fire risks.
Do you have any other programs already in place that could be used to communicate hazard-related information?	No
• If yes, please briefly describe	
Do you have any established warning systems for hazard events?	No
• If yes, please briefly describe	

**National Flood Insurance Participation**

The District is not an incorporated jurisdiction and has no regulatory authority for development.

**Community Classifications**

Classifications under various community mitigation programs are presented in the following table.

**Table 11-7. Community Classifications**

	Participating?	ID Number	Classification	Date Classified
UEI #	Yes	N4WLBMD1PAW3	Sam.gov	8/20/2024
Public Protection	No			
StormReady	No			
Firewise	Yes			

**Adaptive Capacity for Climate Change**

Given the uncertainties associated with how hazard risk may change with a changing climate, a jurisdiction’s ability to track such changes and adapt as needed is an important component of the mitigation strategy. Table 11-8 summarizes the District’s adaptive capacity for climate change.

**Table 11-8. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	Medium
<i>Comment:</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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>	
Participation in regional groups addressing climate risks	Low
<i>Comment:</i>	
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
<i>Comment:</i>	
Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i>	
Identified strategies for adaptation to impacts	Low
<i>Comment:</i>	
Champions for climate action in local government departments	Low
<i>Comment:</i>	

<b>Political support for implementing climate change adaptation strategies</b>	Low
<i>Comment:</i>	
<b>Financial resources devoted to climate change adaptation</b>	Low
<i>Comment:</i>	
<b>Local authority over sectors likely to be negative impacted</b>	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
<b>Local residents' knowledge of and understanding of climate risk</b>	Medium
<i>Comment:</i>	
<b>Local residents' support of adaptation efforts</b>	Medium
<i>Comment:</i>	
<b>Local residents' capacity to adapt to climate impacts</b>	Medium
<i>Comment:</i>	
<b>Local economy's current capacity to adapt to climate impacts</b>	Unsure
<i>Comment:</i>	
<b>Local ecosystem's capacity to adapt to climate impacts</b>	Unsure
<i>Comment:</i>	

- 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.

### 11.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning and Regulatory Capabilities

The capability assessment did not identify a need to expand on the capability.

#### Fiscal Capabilities

The capability assessment did not identify a need to expand on the capability.

#### Administrative and Technical Capabilities

CCFD-12

#### Public Education and Awareness Capabilities

CCFD-4

#### NFIP Capabilities

Special-purpose districts are not eligible to participate in the NFIP, and therefore do not have the capability nor the ability to expand on it.

## 11.5 INTEGRATION WITH OTHER PLANNING INITIATIVES

The information on hazards, risk, vulnerability, and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### 11.5.1 Existing Integration

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

- **FEMA HMGP** – Phase 1 2024
- **Jointly with Chumstick Wildfire Stewardship Coalition** – Fuels reduction, ingress and egress treatment.
- **Capital Improvement Plan**—The capital improvement plan includes projects can help mitigate potential hazards. The District will act to ensure consistency between the hazard mitigation Plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- **Emergency Operations Plan**—The results of the risk assessment were used in the development of the emergency operations plan.
- **Facilities Plan**—The results of the risk assessment and mapped hazard areas are used in facility planning for the district. Potential sites are reviewed for hazard risks and appropriate mitigation measures are considered in building and site design.

### 11.5.2 Opportunities for Future Integration

As this hazard mitigation plan is implemented, CCFD3 will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan include actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

- **FEMA HMGP** – Phase 2 approval 2025
- **Capital Improvement Projects** – Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization
- **Fuels Reduction Program**
- **Home Assessment Program**
- **WUI code adoption** throughout the County

## 11.6 RISK ASSESSMENT

### 11.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 11-9 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 hazard mitigation plan.

**Table 11-9.** Past Natural Hazard Events

Type of Event	Incident Period Date	Damage Assessment
Severe Winter Storm	01/06/2022	Overnight snowfall of 5 feet caused delays in service and collapsed roofs
Wildfire - Cougar Creek	07/28/2018	Not Available
Severe Winter Storm	12/17/17	Not Available
Wildfire – Jack Creek	7/17/17	Not Available
Wildfire – Spromberg Cyn	5/23/17	Not Available
Severe Winter Storm	12/19/16	Not Available
Wildfire – Suncrest	8/27/16	Not Available
Ice Storm	01/03/15	Not Available
Wildfire – Chiwaukum	07/15/14	Not Available
Wildfire – Chumstick	8/19/13	Not Available
Wildfire – Wenatchee Complex	9/1/12	Not Available
Wildfire – Tumwater Canyon	8/17/11	Not Available
Flood	3/31/11	Not Available
Wildfire – Jack Creek	8/10/08	Not Available
Flood	11/7/06	Not Available
Wildfire – Rat Creek	7/29/94	Not Available

### 11.6.2 Hazard Risk Ranking

Table 11-10 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.



**Table 11-10. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	45	High
3	Earthquake	32	Medium
4	Avalanche	18	Medium
5	Flooding	15	Low
6	Dam or Levee Failure	6	Low
8	Landslide	0	Low
8	Drought	0	Low

### 11.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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:

- We have a large influx of tourists every day in our district. This adds to the complexity of managing emergency incidents when people are unfamiliar with potential hazards in the area.
- There are multiple canyons with only one ingress/egress route that could be cut off in the event of a wildfire.

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

## 11.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 11-11 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 11-11. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
CCFD3-1—Continue fuel reduction and home hardening activities throughout CCFD3 to increase ignition-resistance.	Carried over to updated plan	CCFD3-1
<i>Comment:</i> CCFD# 3 has dedicated funds to hire staffing through the summer months, creating a fuels reduction program. The program is planned to continue in perpetuity.		
CCFD3-2—Purchase an Air Curtain Burner to facilitate the clean disposal of fire fuels	Removed; no longer feasible	N/A
<i>Comment:</i> This disposal method was not deemed financially viable.		
CCFD3-3—Improve District’s training grounds to better prepare firefighters to respond to the diverse types of emergencies	Carried over to updated plan	CCFD3-2
<i>Comment:</i> Currently in progress. Old burn facility is being rehabbed. Demo is complete, currently under construction. Vehicle prop added, configuration changed to accommodate more training types.		

CCFD3-4—Purchase ArcGIS license for use in mapping District.	Completed	N/A
<i>Comment:</i> ARC Gis license purchased in 2018. Mapping coverage has continued to expand.		
CCFD3-5—Provide GIS training to staff	Completed	N/A
<i>Comment:</i> USFS provided guidance and assistance for CCFD# 3 personnel, allowing them to administer and make changes to the map. This training was adequate for the Fire District’s needs		
CCFD3-6—Integrate the hazard mitigation plan into other plans and programs that dictate land use decisions in the community, including the comprehensive plan.	Carried over to updated plan	CCFD#-3
<i>Comment:</i> Not yet implemented.		
CCFD3-7—Asses the need for the WUI code within the City Limits	Completed	N/A
<i>Comment:</i> WUI code was determined to be necessary. The City Council for Leavenworth adopted the WUI code in 2021.		
CCFD3-8—Provide incentives to commercial property owners to extend sprinkler systems to the roof tops.	Removed; no longer feasible	N/A
<i>Comment:</i> System costs were too high, not feasible with city water system or well without backup power.		
CCFD3-9—Improve website content to include links to natural hazard mitigation partners	Carried over to updated plan	CCFD3-4
<i>Comment:</i> Website has been continually updated, and some partners have been added. Work remains to be completed.		
CCFD3-10—Require new hydrants to be placed on a riser, reducing the risk of being buried by snow.	Completed	N/A
<i>Comment:</i> Fire District # 3 created a Fire Code Development Standard for the City of Leavenworth, requiring risers where a need is determined to exist.		
CCFD3-11—Acquire generator for Station 32	Completed	N/A
<i>Comment:</i> Generator added in 2022.		
CCFD3-12—Provide additional training and equipment to staff for severe weather response	Carried over to updated plan	CCFD3-5
<i>Comment:</i> National Weather Service provided training in 2022 and 2023		
CCFD3-13—Equip trailer for mobile incident command post	Carried over to updated plan	CCFD3-6
<i>Comment:</i> Communications (Base Station) added. Development continues.		
CCFD3-14—Develop/Enhance community engagement program to increase community risk reduction actions	Carried over to updated plan	CCFD3-7
<i>Comment:</i> Chumstick Coalition Town Hall, Social Media blitzes, door knocking campaigns, etc.		
CCFD3-15—Expand Station 31 for increasing staff and apparatus	Removed; no longer feasible	N/A
<i>Comment:</i> Station is at capacity, and there is no remaining room on the lot for expansion.		
CCFD3-16—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.	Carried over to updated plan	CCFD3-8
<i>Comment:</i>		
CCFD3-17—Coordinate with Washington State Department of Transportation to designate alternate evacuation routes.	Removed; no longer feasible	N/A
<i>Comment:</i> CCSO Dept. Of Emergency Management is the AHJ for evacuations, and is working with DOT.		
CCFD3-18—Identify and stock emergency shelters.	Removed; no longer feasible	N/A
<i>Comment:</i> Emergency shelters were identified during COVID, which also revealed the waste involved in stocking up for an incident that could be years away. Red Cross in Wenatchee has stockpiles within ½ hour.		

<p><b>CCFD3-19—Schedule and implement Emergency Response Planning, including table top exercises.</b></p>	<p>Carried over to updated plan</p>	<p>CCFD3-9</p>
<p><b><i>Comment:</i> Interagency training with Sheriff’s Office, Cascade Medical, USFS and DNR. Will continue into the future.</b></p>		
<p><b>CCFD3-20—Coordinate methods of sharing building plans and construction information with Emergency partner agencies.</b></p>	<p>Carried over to updated plan</p>	<p>CCFD3-10</p>
<p><b><i>Comment:</i> Not yet implemented</b></p>		
<p><b>CCFD3-21—Participate in programs such as Firewise, Storm Ready and the Community Rating System.</b></p>	<p>Carried over to updated plan</p>	<p>CCFD3-11</p>
<p><b><u><i>Comment:</i> CCFD# 3 has pushed to create more Firewise communities and is working with DNR to facilitate the process.</u></b></p>		

## 11.8 HAZARD MITIGATION ACTION PLAN

Table 11-12 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 11-13 identifies the priority for each action. Table 11-14 summarizes the mitigation actions by hazard of concern and mitigation type. Completed action worksheets are on file with the district.

**Table 11-12.** Hazard Mitigation Action Plan Matrix

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action CCDF3-1</b> — Continue fuel reduction and home hardening activities throughout CCFD3 to increase ignition-resistance.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	3, 5, 6	1, 3	CCFD3	County, City, CWSC	Very High	HMGP, CWDG, DNR, District budget	Long-Term
<b>Action CCDF3-2</b> — Improve District’s training grounds to better prepare firefighters to respond to the diverse types of emergencies.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Earthquake, Flood							
New and Existing	2, 8, 9	1, 2, 3, 4	CCFD3		Moderate	District budget	Short-Term
<b>Action CCDF3-3</b> — Integrate the hazard mitigation plan into other plans and programs that dictate land use decisions in the community, including the comprehensive plan.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Earthquake, Flood, Drought							
New and Existing	3, 4, 5, 6, 7, 8, 9, 10, 11	1,2,3,4,5,6	CCFD3	County, City	Low	Local government budgets	Short-Term
<b>Action CCDF3-4</b> —Improve website content to include links to natural hazard mitigation partners.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought							
Existing	4, 5, 6, 11	1, 3, 5	CCFD3		Low	District budget	Short-Term
<b>Action CCDF3-5</b> — Provide additional training and equipment to staff for severe weather response.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought							
Existing	2, 3, 8	4	CCFD3	State, FEMA	Low	District Budget	Short-Term
<b>Action CCDF3-6</b> — Equip trailer for mobile incident command post.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather							
New and Existing	2, 8	1, 3, 4, 6	CCFD3	DNR, County, State	Moderate	District Budgets, HMGP	Short-Term
<b>Action CCDF3-7</b> — Develop/enhance community engagement program to increase community risk reduction actions.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought							

New and Existing	1, 2, 3, 4, 5, 6, 11	1, 2, 3, 4, 5, 6	CCFD3	CWSC, City, County	Moderate	District Budget, HMGP	Long-Term
<b>Action CCDF3-8</b> — Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood, Landslide							
New and Existing	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	1, 2, 3, 4, 5, 6	CCFD3	County	Moderate	District Budget, HMGP	Long-Term
<b>Action CCDF3-9</b> — Schedule and implement Emergency Response Planning, including table-top exercises.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood, Landslide							
New and Existing	2, 8	4	Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood	CMC, City, County	Low	District Budget	Long-Term
<b>Action CCDF3-10</b> — Coordinate methods of sharing building plans and construction information with Emergency partner agencies.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood, Landslide							
New and Existing	1, 2, 6, 7, 8, 9	1, 4	Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood	CMC, County	Moderate	District Budget	Long-Term
<b>Action CCDF3-11</b> — Participate in programs such as Firewise, Storm Ready and the Community Rating System.							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood, Landslide							
New and Existing	3, 4, 5, 11	1, 3	Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood	City, County, CWSC	Moderate	District Budget, HMGP	Long-Term
<b>Action CCDF3-12</b> — Provide BCS training to applicable staff							
<b>Hazards Mitigated:</b> Wildfire, Severe Weather, Drought, Avalanche, Dam Failure, Earthquake, Flood, Landslide							
New and Existing	3, 4, 6, 7	1, 2, 3	CCFD3	FEMA	Low	District Budget	Short-Term

Acronyms used here are defined at the beginning of this volume.

**Table 11-13. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
CCDF3-1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45	High
CCDF3-2	3	3	3	3	3	3	0	0	0	3	3	3	3	3	3	42	High
CCDF3-3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	45	High
CCDF3-4	3	3	3	3	3	3	0	3	3	3	3	3	3	3	3	42	High
CCDF3-5	3	3	3	3	3	3	0	3	0	3	3	3	3	3	3	45	High
CCDF3-6	3	3	3	3	3	3	0	0	0	3	3	3	3	3	3	36	High
CCDF3-7	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	39	High
CCDF3-8	3	3	3	3	3	3	3	0	3	3	3	3	3	3	3	42	High
CCDF3-9	3	3	3	3	3	3	0	0	0	3	3	3	3	3	3	36	High
CCDF3-10	3	3	1	1	1	1	0	0	0	3	0	3	1	3	3	23	Medium
CCDF3-11	3	3	3	3	3	3	3	3	0	3	3	0	3	3	3	39	High
CCFD3-12	3	3	3	1	3	1	1	0	0	3	1	3	3	3	3	31	High

**Table 11-14. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazard		Medium-Ranked Hazard		Low-Ranked Hazard			
		Wildfire	Severe Weather	Earthquake	Avalanche	Flood	Dam or Levee Failure	Landslide	Drought
CCDF3-1	Property Protection	●							
CCDF3-2	Emergency Services	●	●	●		●			
CCDF3-3	Natural Resource Protection	●	●	●		●			●
CCDF3-4	Public Education and awareness	●	●						●
CCDF3-5	Emergency Services	●	●						●

<b>CCDF3-6</b>	Emergency Services	•	•						
<b>CCDF3-7</b>	Public Education and awareness	•	•						•
<b>CCDF3-8</b>	Natural Resource Protection	•	•	•	•	•	•	•	•
<b>CCDF3-9</b>	Emergency Services	•	•	•	•	•	•	•	•
<b>CCDF3-10</b>	Emergency Services	•	•	•	•	•	•	•	•
<b>CCDF3-11</b>	Property Protection	•	•	•	•	•	•	•	•
<b>CCFD3-12</b>	Property Protection	•	•	•	•	•	•	•	•

## 11.9 PUBLIC OUTREACH

Table 11-15 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 11-15.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
Leavenworth City Council Wildfire Scenario Q&A	Nov	40
CWSC Town Hall 2023, 2024 (Provided member to Panel)	May 23 and 24	85
Facebook Posts	Ongoing	2500
Home Assessment Program	Ongoing	200

## 11.10 INFORMATION SOURCES USED FOR THIS ANNEX

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. CHELAN FIRE AND RESCUE (FD #7)

### 12.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Brandon Asher, Fire Chief  
 PO Box 1317  
 Chelan, WA, 98816  
 (509)682-4476  
 basher@cfr7.org

**Alternate Point of Contact**

Shawn Sherman, Assistant Fire Chief  
 PO Box 1317  
 Chelan, WA, 98816  
 (509)682-4476  
 shawns@cfr7.org

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 12-1.

**Table 12-1.** Local Hazard Mitigation Planning Team Members

Name	Title
Brandon Asher	Fire Chief
Shawn Sherman	Assistant Fire Chief
Misty Fifield	Administrative Office Manager
Karla Mendoza	Administrative Assistant

### 12.2 JURISDICTION PROFILE

#### 12.2.1 Overview

Chelan Fire and Rescue is an all-risk emergency services agency dedicated to enhancing the quality of life and safety of our community through emergency response, education, and prevention. Local volunteers founded the City of Chelan Fire Department in 1926. In 1955, Chelan County Fire Protection District #7 (dba: Chelan Fire and Rescue) was formed to provide fire protection services to the communities outside the City of Chelan. The agency is a Fire Protection District organized under Title 52 of the Revised Code of Washington. Chelan Fire and Rescue's jurisdiction is in Northeast Chelan County, with the City of Chelan voting to incorporate into the Fire District in 2000. Chelan Fire and Rescue is funded primarily through the collection and distribution of property taxes.

Chelan Fire and Rescue is governed by a three-member board of Commissioners. Each Commissioner is elected to a six-year term that is staggered in two-year increments. The board assumes responsibility for the adoption of this plan and the Fire Chief will oversee its implementation.

Chelan Fire and Rescue currently has 2 chiefs, 2 administrative assistants, 1 mechanic, 10 career firefighters, 4 seasonal firefighters from April through October, and 28 volunteer firefighters.

### 12.2.2 Service Area

Chelan Fire and Rescue is in Northeast Chelan County, covering 125 square miles around the lower end of Lake Chelan and surrounding areas. These areas include: The City of Chelan, Chelan Falls, Union Valley, South Lakeshore, 25 Mile Creek, and the north side of Lake Chelan from the City of Chelan to Manson, Chelan Airport, and Howard Flats up to the Chelan/Okanogan County line. Lake Chelan is a 50-mile-long lake with steep hillsides on the South Shore and development sprawling deep into the wildland urban interface on the north shore. These areas are covered by one station with 24/7 career staffing and 4 additional volunteer stations. Chelan Fire and Rescue also has mutual aid agreements in place with all Chelan and Douglas County fire districts, the Washington State DNR, and the United States Forest Service to assist with each other on fires when needed. Chelan Fire and Rescue is also very active in State Mobilizations throughout Washington State and has also deployed to Oregon and California under EMAC deployments. Chelan has 7,800 year-round residents with a summer vacation and tourism increase of up to 45,000 people and over 2 million visitors annually.

### 12.2.3 Assets

Table 12-2 summarizes the assets of the District and their value.

**Table 12-2. Special Purpose District Assets**

Asset	Value
<b>Property</b>	
2.5 acres of land	\$205,000
<b>Equipment</b>	
7-701 Safeboat	\$175,500
7-201 2021 Dodge 3500	\$65,000
7-203 2011 Ford F350	\$120,000
7-301 2007 Pierce Type 3	\$202,500
7-302 2005 Stuart and Stevenson	\$75,000
7-303 2004 Freightliner	\$150,000
7-304 2006 Stuart and Stevenson	\$75,000
7-401 2024 Spartan Metro Star	\$1,000,000
7-402 2024 Spartan Metro Star	\$1,000,000
7-403 2003 H&W Spartan	\$50,000
7-404 2008 Rosenbauer	\$500,000
7-501 2007 Pierce 75' ladder	\$600,000
7-601 2000 Freightliner	\$175,000
7-602 2000 Freightliner	\$175,000
7-603 2006 International	\$285,000
7-101 2023 Chevy Silverado 3500	\$87,000
7-102 2010 Chevy Tahoe	\$45,000
7-103 2015 Dodge Ram	\$42,000
7-104 2018 Ford F350	\$57,000
1958 GMC Antique	\$95,000
2000 HAV/IH Rescue Hazmat Vehicle	\$210,000
2- 100KW Diesel Powered Portable Generators	\$60,000

2- 2004 Honda 225HP Motor	\$36,000
<b>Total:</b>	<b>\$5,280,000</b>
<b>Critical Facilities</b>	
Station 71 232 E. Wapato, Chelan, WA 98816	\$2,569,888
Station 72, 20 Chestnut St. Chelan Falls, WA 98817	\$172,414
Station 73, 345 Idyll Spurs Lane, Chelan, WA 98816	\$183,255
Station 74, 56 Airport Way, Chelan, WA 98816	\$1,987,624
Station 75, 12041 S. Lakeshore Rd. Chelan, WA 98816	\$617,064
<b>Total:</b>	<b>\$5,530,245</b>

### 12.3 CURRENT TRENDS

Chelan Fire and Rescue has seen a 25% call increase over the last 10 years. Covid caused many summer homeowners to move to Chelan full time as more and more people can work from home. The City of Chelan has a TIF (Tax Increment Financing) district that will fund water infrastructure needs. Once in place, it is projected to bring approximately 900 new residences and multiple commercial businesses. When built out, this will increase our City limit population by almost 50%. A tremendous amount of infrastructure was put in two years ago. We anticipate that there will be a rapid increase in new home construction once interest rates improve. Many homes are now being built deeper into the wildland urban interface creating challenges for our response capabilities. City water lines will soon be placed out to the Chelan Airport. The airport is going under a large expansion. This water will then allow additional hangars at the airport and eventually residential development in the Apple Acres/Howard Flats area. Our community was once protected from wildland threats with irrigated and green orchards. These are rapidly being torn out and being replaced with homes or overgrown with sagebrush.

### 12.4 CAPABILITY ASSESSMENT

#### 12.4.1 Existing Capabilities

An assessment of the district’s current capabilities was conducted to identify opportunities to expand, initiate or integrate capabilities in order to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

#### Planning and Regulatory Capabilities

Jurisdictions develop plans and programs and implement rules and regulations to protect and serve residents. When effectively prepared and administered, these plans, programs and regulations can support the implementation of mitigation actions. Table 12-3 summarizes existing codes, ordinances, policies, programs, or plans that are applicable to this hazard mitigation plan.

**Table 12-3. Planning and Regulatory Capability**

Plan, Study or Program	Date of Most Recent Update	Comment
Community Wildfire Protection Plan	2019	Currently being updated
Chelan Fire and Rescue Strategic Plan	2023	Updated Annually
Capital Apparatus Replacement Plan	2024	Reviewed Annually
Capital Facilities Plan	2024	Reviewed Annually

Plan, Study or Program	Date of Most Recent Update	Comment
Structure Protection Plan for North and South Shore of Lake Chelan	2024	Structure inventory and assessment for North and South shore fires.
Revised Code of Washington Title 52- Fire Districts	Current	Administrative Authority
Washington Administrative Code –296-305	Current	Firefighter Safety Standards

**Fiscal, Administrative and Technical Capabilities**

Fiscal capability is an indicator of a jurisdiction’s ability to fulfill the financial needs associated with hazard mitigation projects. An assessment of fiscal capabilities is presented in Table 12-4. Administrative and technical capabilities represent a jurisdiction’s staffing resources for carrying out the mitigation strategy. An assessment of administrative and technical capabilities is presented in Table 12-5.

**Table 12-4. Fiscal Capability**

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	No
<i>If yes, specify:</i>	
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
Other	Yes
<i>If yes, specify:</i> Federal and State grant opportunities.	

**Table 12-5. Administrative and Technical Capability**

Staff/Personnel Resource	Available?
<b>Planners or engineers with knowledge of land development and land management practices</b> <i>If Yes, Department/Position:</i> City/County Planning and Building Departments	Yes
<b>Engineers or professionals trained in building or infrastructure construction practices</b> <i>If Yes, Department/Position:</i> City/County Planning and Building Departments	Yes
<b>Planners or engineers with an understanding of natural hazards</b> <i>If Yes, Department/Position:</i> City/County Planning and Building Departments	Yes
<b>Staff with training in benefit/cost analysis</b> <i>If Yes, Department/Position:</i>	No
<b>Surveyors</b> <i>If Yes, Department/Position:</i>	No
<b>Personnel skilled or trained in GIS applications</b> <i>If Yes, Department/Position:</i>	No
<b>Scientist familiar with natural hazards in local area</b> <i>If Yes, Department/Position:</i>	No
<b>Emergency manager</b> <i>If Yes, Department/Position:</i> Fire Chief, Assistant Fire Chief, Captains	Yes
<b>Grant writers</b> <i>If Yes, Department/Position:</i> Fire Chief, Assigned Firefighters	Yes
<b>Other</b> <i>If Yes, Department/Position:</i>	

**Education and Outreach Capabilities**

Outreach and education capability identifies the connection between government and community members, which opens a dialogue needed for a more resilient community. An assessment of education and outreach capabilities is presented in Table 12-6.

**Table 12-6. Education and Outreach Capability**

Criterion	Response
<b>Do you have a public information officer or communications office?</b>	Yes
<b>Do you have personnel skilled or trained in website development?</b>	Yes
<b>Do you have hazard mitigation information available on your website?</b> <i>If yes, briefly describe:</i> Various safety links	Yes
<b>Do you use social media for hazard mitigation education and outreach?</b> <i>If yes, briefly describe:</i> Facebook, Instagram	Yes
<b>Do you have any citizen boards or commissions that address issues related to hazard mitigation?</b> <i>If yes, briefly describe:</i> Fire Adapted Communities, Various Homeowners Associations	Yes
<b>Do you have any other programs in place that could be used to communicate hazard-related information?</b> <i>If yes, briefly describe:</i> LED message board, Union Valley phone tree, HOAs, Farmers Market, Earth Day, Fire danger level signs x5.	Yes
<b>Do you have any established warning systems for hazard events?</b> <i>If yes, briefly describe:</i> IPAWS, Everbridge, Community “Air Raid” Siren, Social Media, Emergency Broadcasting	Yes

**National Flood Insurance Participation**

The District is not an incorporated jurisdiction and has no regulatory authority for development.

**Community Classifications**

Classifications under various community mitigation programs are presented in the following table.

**Table 12-7. Community Classifications**

	Participating?	ID Number	Classification	Date Classified
UEI #	Yes	CMAGNGPN71L6		
Public Protection WSRB	Yes		5-10	06/01/2024
StormReady	No			
Firewise	Yes			

**Adaptive Capacity for Climate Change**

Given the uncertainties associated with how hazard risk may change with a changing climate, a jurisdiction’s ability to track such changes and adapt as needed is an important component of the mitigation strategy. Table 12-8 summarizes the jurisdiction’s adaptive capacity for climate change.

**Table 12-8. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	Low
<i>Comment:</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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>	
Participation in regional groups addressing climate risks	Low
<i>Comment:</i>	
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
<i>Comment:</i>	
Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i> Diesel exhaust burners in apparatus	
Identified strategies for adaptation to impacts	Low
<i>Comment:</i>	
Champions for climate action in local government departments	Low
<i>Comment:</i>	

<b>Political support for implementing climate change adaptation strategies</b>	Low
<i>Comment:</i>	
<b>Financial resources devoted to climate change adaptation</b>	Low
<i>Comment:</i>	
<b>Local authority over sectors likely to be negative impacted</b>	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
<b>Local residents' knowledge of and understanding of climate risk</b>	Low
<i>Comment:</i>	
<b>Local residents' support of adaptation efforts</b>	Low
<i>Comment:</i>	
<b>Local residents' capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local economy's current capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local ecosystem's capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	

- 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.

### 12.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning and Regulatory Capabilities

Planning and regulatory capabilities will be expanded through updating facilities to meet hazard codes (Action FD7-1) and coordinating with multiple agencies to develop emergency water sources (FD7-2), improving the district's ability to plan and permit hazard-resistant projects.

#### Fiscal Capabilities

The District's mitigation actions enhance fiscal capabilities through the securement and management of mitigation funding.

#### Administrative and Technical Capabilities

This capability will be expanded through the hiring of staff and fuels reduction crews for risk mitigation and fire response (FD7-3)

#### Public Education and Awareness Capabilities

Improves public education and outreach capability about fire risks and fuels reduction (FD7-3)

## **NFIP Capabilities**

Special-purpose districts are not eligible to participate in the NFIP, and therefore do not have the capability nor the ability to expand on it.

## **12.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

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 hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### **12.5.1 Existing Integration**

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

- **Rivercom Chelan/Douglas Dispatch**—The District creates zones based off of station location and response times. This ties in with the risk assessments for natural hazards.
- **Washington State Patrol – Washington State Mobilization Plan**—The building analysis in this risk assessments shows resource needs from other jurisdictions.
- **Chelan County Comprehensive Emergency Management Plan**—Mitigation outreach efforts are in coordination with the Sheriff’s office. Includes information inclusive of natural hazards.
- **Capital Improvement Plan**—The capital improvement plan includes projects that can help mitigate potential hazards. The District will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.

### **12.5.2 Opportunities for Future Integration**

The capability assessment presented 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:

- **Chelan Douglas Health District**—Pandemic Planning – Risk assessment will help identify community lifelines that could support future incidents.
- **North Central Washington Forest Health Collaborative**—Bringing private and public landowners together to ensure a healthy and sustainable forest/rangeland.
- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan presented in this annex.



## 12.6 RISK ASSESSMENT

### 12.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 12-9 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 hazard mitigation plan.

**Table 12-9. Past Natural Hazard Events**

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Stayman Fire	WA-WFS-	Yes	8/20/2024	3500 acres
25 Mile Creek Fire	FM 5414-WA	Yes	08/17/2021	Forest Damage. 1 primary residence
Apple Acres Fire	FM-5352-WA	Yes	09/07/2020	Forest and Shrub Steppe
Covid Pandemic	EM-3427-WA	Yes	01/20/2020	Public Health
Chelan Complex Fire	FM-5100-WA	Yes	08/14/2015	\$23,513,366. Residential and Commercial building damage and power infrastructure
Union Valley Fire	FM-2823-WA	Yes	07/28/2009	Forest and shrub steppe.
Slide Ridge Debris Slide	834016	No	07/02/2019	Lakeshore Rd. Impassible. Culvert wiped out. Bridge built.
Heavy Snow Event Chelan	1003155	No	01/02/2022	Emergency response delays due to too much snow.
4th of July Weekend Flash Flood	1049746	No	07/03/2024	Severe washout. Home water damage due to road flooding
Monument Rock Slide	No	No	07/31/2024	Road blocked.
Union Valley Fire	FM-2368-WA	Yes	07/28/2021	Homes and Forest.
Tyee Fire		Yes	07/24/1994	Forest and Homes

### 12.6.2 Hazard Risk Ranking

Table 12-10 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

The District hazard ranking is based on local knowledge and the risk ranking for the unincorporated part of the County. Additionally, there are parts of the south shore of Lake Chelan, in the District service area, that would be blocked by landslide and prevent District access to those homes.

**Table 12-10. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	45	High
3	Earthquake	34	High
4	Landslide	26	Medium
5	Flood	18	Medium
5	Dam or Levee Failure	12	Low
7	Drought	6	Low
8	Avalanche	0	Low

### 12.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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:

- During the COVID pandemic, the fire station was used as a drive-through mass vaccination clinic. This displaced trucks and equipment in our bays and exposed our only firefighters to potential infection which could have impacted the District’s availability to fight fires and handle other emergency responses.

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

## 12.7 HAZARD MITIGATION ACTION PLAN

Table 12-11 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 12-12 identifies the priority for each action. Table 12-13 summarizes the mitigation actions by hazard of concern and mitigation type. Completed action worksheets are on file with the district.

**Table 12-11.** Hazard Mitigation Action Plan Matrix

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<b>Action FD7-1</b> — Retrofit or rebuild facilities that are not up to current hazard codes. The building is not up to seismic codes.							
<b>Hazards Mitigated:</b> Avalanche, Dam or Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	2, 6, 8	1, 2, 3, 4, 5, 6	Chelan Fire and Rescue		Very High	BRIC, HMGP, HMGP Post-Fire, Staff Time, District CIP Budget, AFG Grant, Appropriations	Short-Term
<b>Action FD7-2</b> — Work with interagency partners and private landowners to identify emergency water sources and locations, seek funding for the development of emergency water access or storage facilities.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	2, 3, 4, 6, 9, 10, 11	1, 2, 3, 4, 5, 6	Chelan Fire and Rescue		Moderate	BRIC, HMGP, HMGP Post-Fire	Short-Term
<b>Action FD7-3</b> — Hire fuels crew to assist in fuel reduction, community outreach/education and support initial attack.							
<b>Hazards Mitigated:</b> Wildfire							
New and Existing	3, 4, 5, 6, 7, 8, 9, 11	1, 2, 3, 4, 5, 6	Chelan Fire and Rescue	Local, state, and federal partners	Very High	FEMA FP&S, CWDG	Short-Term

**Table 12-12.** Mitigation Action Priority

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
FD7-1	3	3	1	3	3	0	3	0	0	3	3	3	3	3	3	34	High
FD7-2	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	40	High
FD7-3	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	43	High

**Table 12-13.** Mitigation Action Classification

Action	Mitigation Classification	High-Ranked Hazard			Medium-Ranked Hazard		Low-Ranked Hazard		
		Wildfire	Severe Weather	Earthquake	Landslide	Flood	Dam or Levee Failure	Drought	Avalanche
FD7-1	Emergency Services, Structural Projects, Community Capacity Building	●	●	●	●	●	●	●	●
FD7-2	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Structural Projects, Community Capacity Building	●							
FD7-3	Prevention, Property Protection, Public Education and Awareness, Natural Resource Protection, Climate Resilience	●							

## 12.8 PUBLIC OUTREACH

Table 12-14 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 12-14.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
Wildfire Ready Neighbors Home Assessments	04/01/2022	100
Firewise Community Outreach (social media, public events)	Multiple times a year	200
Hispanic outreach for Fire Adapted Communities through CAFE	04/15/2023	150
Homeowner Association Presentations	Ongoing	100
Multiple Facebook posts 9,500 followers	Ongoing	9,500
Multiple Instagram Posts	Ongoing	1306
LED sign safety messaging at Station 71	Ongoing	500 cars a day
Rotary Presentation	Yearly	50
City of Chelan Fire Department Status Briefing	Yearly	30
Earth Day	Yearly	400

## 12.9 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **Chelan County Hazard Identification and Vulnerability Assessment**—ID and assessment of risks
- **NOAA Storm Event Database**—Identify historical events
- **Community Wildfire Protection Plan**—determine risk and response concerns

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.

## 13. LAKE WENATCHEE FIRE AND RESCUE (FIRE DISTRICT #9)

### 13.1 LOCAL HAZARD MITIGATION PLANNING TEAM

**Primary Point of Contact**

Kristina King, Wildfire Risk Reduction Coordinator  
 21696 Lake Wenatchee Highway  
 Leavenworth, WA 98826  
 509-423-9684  
 kking@lwfr.org

**Alternate Point of Contact**

David Walker, Fire Chief  
 21696 Lake Wenatchee Highway  
 Leavenworth, WA 98826  
 425-471-8107  
 dwalker@lwfr.org

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 13-1.

**Table 13-1.** Local Hazard Mitigation Planning Team Members

Name	Title
Kim Wiley	District Administrator
David Walker	Fire Chief
Kristina King	Wildfire Risk Reduction Coordinator

### 13.2 JURISDICTION PROFILE

#### 13.2.1 Overview

Lake Wenatchee Fire and Rescue’s (LWFR) sole purpose is life safety and property conservation. LWFR was established in April of 2015 through a merger of Chelan County Fire District 4 (formed 1978) and Chelan County Fire District 9 (formed 1986). LWFR is a Fire Protection District formed under the guidance of Washington State RCWs. The District currently employs a staff of 12 part-time and full-time employees and 50 volunteer firefighters. We are governed by a board of elected fire commissioners who serve a six-year term.

Chelan County Fire District 9/LWFR Fire Commissioners assume responsibility for the adoption of this plan; Chelan County Fire District 9/LWFR will oversee its implementation. The District participates in the Public Protection Class rating System and currently has a rating of #6.

#### 13.2.2 Service Area

Lake Wenatchee Fire and Rescue serves the unincorporated communities in Lake Wenatchee, Plain, and Highway 2 corridor. The District serves a population of 3,000 full time residents and 15-20,000 part-time residents and recreationalists. Its service area covers an area of 65 square miles.

### 13.2.3 Assets

Table 13-2 summarizes the assets of the District and their value.

**Table 13-2. Special Purpose District Assets**

Asset	Value
<b>Property</b>	
5 acres of land	\$600,000
<b>Equipment</b>	
5 Type 1 Structural Engines	\$1.9 Million
5 Brush Trucks	\$460,000
1 Light Rescue	\$180,000
4 Water Tenders	\$700,000
2 Command Vehicles	\$80,000
3 Generators	\$200,000
<b>Total:</b>	<b>\$4,120,000</b>
<b>Critical Facilities</b>	
Station 91, 21696 Lake Wenatchee Highway Leavenworth, WA 98826	\$1.2 Million
Station 92, 2327 Pine Tree Rd Leavenworth, WA 98826	\$600,000
Station 93, 19015 Beaver Valley Rd Leavenworth, WA 98826	\$1.2 Million
Station 94, 21300 Cayuse St Leavenworth, WA 98826	\$1.1 Million
Station 95, 18826 Butcher Creek Rd FS 6910 Leavenworth, WA 98826	\$800,000
<b>Total:</b>	<b>\$4,900,000</b>

## 13.3 CURRENT TRENDS

LWFR responds to fire-related emergencies, medical emergencies and rescues. We serve a small populace of full-time residents, but weekenders and recreationists drive our population up 10-fold on high-volume holidays or seasonal activities. Call volume is on a steady increase. Relying on volunteer firefighters is becoming more difficult. Large complex/campaign fires are increasing. An Interstate highway runs through our district as does BNSF rail lines. Cross-state transmission lines from the dams cross our district serving the Seattle area. We are surrounded by heavily forested United States Forest Service and State Lands which are unhealthy and pose a risk to our community.

## 13.4 CAPABILITY ASSESSMENT

An assessment of the District’s current capabilities was conducted to identify opportunities to expand, initiate or integrate capabilities in order to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

### 13.4.1 Existing Capabilities

#### Planning and Regulatory Capabilities

Jurisdictions develop plans and programs and implement rules and regulations to protect and serve residents. When effectively prepared and administered, these plans, programs and regulations can support the implementation of mitigation actions. Table 13-3 summarizes existing codes, ordinances, policies, programs or plans that are applicable to this hazard mitigation plan.

**Table 13-3. Planning and Regulatory Capability**

	Date of Most Recent Update	Comment
LWFR Policy Manual	2022	Currently under third party review
LWFR Standard Operating Guidelines	2018	Currently under third party review
Cascade Medical Interlocal Agreement for Ambulance Staffing and Operation	2023	Sets terms and conditions under which LWFR is allowed access to the Ambulance to provide Basic Life Support (BLS)
DNR Forestland Response Agreement	2023	Provides for mutual assistance in control and suppression of forestland fire
US Forest Service Local Cooperative Fire Protection Agreement	2022	To provide for reciprocal fire protection and suppression of wildland fires
Interlocal Cooperation Agreement for Chelan County Fire Districts	2020	To cooperate on the basis of mutual advantage to provide for services and facilities
Interlocal Cooperation Agreement for Stellarwood project	2024	To set forth respective obligations for each party during this specific project

#### Fiscal, Administrative and Technical Capabilities

Fiscal capability is an indicator of a jurisdiction’s ability to fulfill the financial needs associated with hazard mitigation projects. An assessment of fiscal capabilities is presented in Table 13-4. Administrative and technical capabilities represent a jurisdiction’s staffing resources for carrying out the mitigation strategy. An assessment of administrative and technical capabilities is presented in Table 13-5.

**Table 13-4. Fiscal Capability**

Financial Resource	Accessible or Eligible to Use?
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	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Federal Grant Programs	Yes



**Table 13-5. Administrative and Technical Capability**

Staff/Personnel Resource	Available?	Department/Position
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	Yes	Volunteer Firefighter
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Fire service and EMS
Grant writers	Yes	Volunteer Firefighter

**Education and Outreach Capabilities**

Outreach and education capability identifies the connection between government and community members, which opens a dialogue needed for a more resilient community. An assessment of education and outreach capabilities is presented in Table 13-6.

**Table 13-6. Education and Outreach**

Criterion	Response
Do you have a Public Information Officer or Communications Office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Our “Wildfire” tab includes info on how to prepare your home
Do you utilize social media for hazard mitigation education and outreach?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Website, Facebook (7,441 followers), Instagram (917 followers)
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly specify</li> </ul>	NCWFHC, UWPP, FAC, Firewise Communities
Do you have any other programs already in place that could be used to communicate hazard-related information?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	Safety Day/ Farmers Market/ HOA Meetings, Community Mobile Integrated Health
Do you have any established warning systems for hazard events?	Yes
<ul style="list-style-type: none"> <li>If yes, please briefly describe</li> </ul>	May 2024 LWFR ordered 5 new mass notification sirens with voice notification and direction to an approximately 1-mile radius.

**National Flood Insurance Participation**

The district is not an incorporated jurisdiction and has no regulatory authority for development.

**Community Classifications**

Classifications under various community mitigation programs are presented in the following table.

**Table 13-7. Community Classifications**

	Participating?	ID Number	Classification	Date Classified
UEI #	Yes	KAD5QRW75PY1		
Public Protection	Yes		6	
StormReady	No	N/A	N/A	N/A
Firewise	Yes	N/A	N/A	N/A

**Adaptive Capacity for Climate Change**

Given the uncertainties associated with how hazard risk may change with a changing climate, a jurisdiction’s ability to track such changes and adapt as needed is an important component of the mitigation strategy. Table 13-8 summarizes the District’s adaptive capacity for climate change.

**Table 13-8. Adaptive Capacity for Climate Change**

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Technical Capacity</b>	
Jurisdiction-level understanding of potential climate change impacts	Low
<i>Comment:</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment:</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment:</i>	
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>	
Participation in regional groups addressing climate risks	Low
<i>Comment:</i>	
<b>Implementation Capacity</b>	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
<i>Comment:</i>	
Identified strategies for greenhouse gas mitigation efforts	Low
<i>Comment:</i>	
Identified strategies for adaptation to impacts	Low
<i>Comment:</i>	

<b>Champions for climate action in local government departments</b>	Low
<i>Comment:</i>	
<b>Political support for implementing climate change adaptation strategies</b>	Low
<i>Comment:</i>	
<b>Financial resources devoted to climate change adaptation</b>	Low
<i>Comment:</i>	
<b>Local authority over sectors likely to be negative impacted</b>	Low
<i>Comment:</i>	
<b>Public Capacity</b>	
<b>Local residents’ knowledge of and understanding of climate risk</b>	Low
<i>Comment:</i>	
<b>Local residents’ support of adaptation efforts</b>	Low
<i>Comment:</i>	
<b>Local residents’ capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local economy’s current capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	
<b>Local ecosystem’s capacity to adapt to climate impacts</b>	Low
<i>Comment:</i>	

- 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.

### 13.4.2 Expansion of Core Capabilities

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate 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. Opportunities for expansion of core capabilities are highlighted below.

#### Planning and Regulatory Capabilities

LWFR seeks to develop a tactical wildfire defense plan to help mitigate the effects of a catastrophic wildfire in our community.

#### Fiscal Capabilities

The purpose of the district participating in the plan is to leverage mitigation funding.

#### Administrative and Technical Capabilities

LWFR seeks to expand this core capability with the hiring of staff, the construction of a new station, and GIS training for staff.

### **Public Education and Awareness Capabilities**

LWFR is prioritizing the following mitigation actions: the hiring of a wildfire risk reduction coordinator/seasonal fuels crew, implementing early educational engagement with our local schools, and the installation of three more mass notification sirens.

### **NFIP Capabilities**

Special-purpose districts are not eligible to participate in the NFIP, and therefore do not have the capability nor the ability to expand on it.

## **13.5 INTEGRATION WITH OTHER PLANNING INITIATIVES**

The information on hazards, risk, vulnerability and mitigation contained in this hazard mitigation plan is based on the best available data. Plan integration is the incorporation of this information into other relevant planning mechanisms, such as general planning and capital facilities planning. It includes the integration of natural hazard information and mitigation policies, principles and actions into local planning mechanisms and vice versa. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaboratively planning for hazard mitigation.

### **13.5.1 Existing Integration**

In the performance period since adoption of the previous hazard mitigation plan LWFR made progress on integrating hazard mitigation goals, objectives and actions into other planning initiatives. The following plans and programs currently integrate components of the hazard mitigation strategy:

- **RiverCom Dual County Dispatch:** Coordinated, regional, 911 dispatching based on jurisdictional run cards and priorities. We (LWFR) and other districts respond to calls as we are dispatched.
- **Chelan County Sheriff's Office:** We collaborate on 911 emergencies, resident evacuations, as well as search and rescue.
- **Department of Emergency Management:** Integration on evacuations, fire and flood warnings, and vulnerable persons identification/response.
- **Emergency Medical Services (EMS):**
- Locally we partner with Cascade Medical to staff a Basic Life Support Ambulance (provided by Cascade Medical) located in Plain and staffed by Lake Wenatchee Fire and Rescue.
- Regionally we partner with the Greater Wenatchee EMS Council to develop patient care guidelines and best practices for major events. Including a Mass Casualty Incident (MCI) Plan to prepare for any incidents that exceed local jurisdiction capacity.
- **WA State Patrol and WA State Fire Marshal's Office:** State Mobilization Plan: provides personnel, equipment, and other logistical resources when a wildland fire or other emergency exceeds the firefighting capacity of local jurisdictions
- **Central Washington Interagency Communication Center (CWICC):** Dispatch Center for state and federal resources for wildfire.
- **AlertWest:** In 2023, two AlertWest wildfire early detection cameras were installed in our district. We utilize their large-scale, interoperable, situational awareness platform with AI wildfire detection.
- **North Central WA Fire Chiefs Association:** is dedicated to enhancing inter-agency cooperation at the Federal, State, and local levels for the purpose of protecting the communities, residents, and unique environments

- **DNR:** We hold written agreements for initial attacks across districts and respond with them in a unified command system for joint jurisdictional events.
- **US Forest Service:** Local Cooperative Fire Protection Agreement – To provide for reciprocal fire protection and suppression of wildland fires
- **Blue Forest:** a funding and financing partnership to implement critical wildfire risk reduction work in our district
- **Chelan County Department of Natural Resources:** Collaborating on fuel mitigation projects within our district.
- **Cascadia Conservation District:** Collaborating on efforts to connect private landowners with the right resources to do wildfire mitigation work on their property. Teaming up to create and sustain Firewise Communities in the Lake Wenatchee Area.

### 13.5.2 Opportunities for Future Integration

As this hazard mitigation plan is implemented LWFR will use information from the plan as the best available science and data on natural hazards. The capability assessment presented in this annex identifies codes, plans and programs that provide opportunities for integration. The area-wide and local action plans developed for this hazard mitigation plan include actions related to plan integration, and progress on these actions will be reported through the progress reporting process described in Volume 1. New opportunities for integration also will be identified as part of the annual progress report. The capability assessment identified the following plans and programs that do not currently integrate goals or recommendations of the hazard mitigation plan but provide opportunities to do so in the future:

- **US Forest Service** – Working directly with them on Forest Health Plans in our region and around our communities.
- **North Central Washington Forest Health Collaborative** – Bringing private and public landowners together to ensure a healthy and sustainable forest/rangeland
- **Chelan County Department of Natural Resources** – We foresee a beneficial partnership in fuels, hazard, and flood mitigation.
- Additionally, we'd like to do some water source improvement; We have no centralized water system and there is a lack of fire flow and security of water systems.
- **Chelan County PUD** – Future opportunities to partner on fire hazard mitigation related to the power grid
- **RiverCom** – To enhance Fire and EMS specific dispatch and enhance response management through criteria-based dispatch.
  - To better integrate RiverCom and CWICC, to increase our ability to respond to cross-jurisdictional events.

## 13.6 RISK ASSESSMENT

### 13.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 13-9 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 hazard mitigation plan.

Table 13-9. Past Natural Hazard Events

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Shugart Fire			8/17/2024	Threatened nearby homes, 15 acres burned
Heavy Rain/Flash Flood White River Road	NA	No	6/27/2023	Mud and debris 4ft deep covering 50ft of White River Rd
Bolt Creek Fire (main highway closure)	FM-5455-WA		9/10/2022	Highway 2 closed for nearly a month because of fire, hazardous tree removal, and fire mitigation
White River, Irving Peak, Minnow Ridge Fire	NA		8/11/2022	White and Irving 11,120 acres, Minnow Ridge 5,130 acres
Heavy Snowfall	NA		1/06/2022	Over 36in of snow in under 24 hrs, 48in in 48hrs. Numerous roof slides, road closures, power outages, snow drifts
Nason Fire			8/4/2021	1,318 acres
Cougar Creek Fire	FM-5270-WA		8/10/2018	42,712 acres
Spromberg Fire	FM-5182-WA		5/27/2017	Cedar log decks destroyed; 42 acres
Suncrest Fire	FM-5152-WA		8/27/2016	\$2,000 Damage estimated; Cell tower damage, 496 acres
Wolverine Fire	NA		7/03/2015	\$100,000; 62,167 acres
Chiwaukum Complex Fires	FM-5061-WA		7/15/2014	\$100,000; DESTROYED: 3 Cabins; 1 Outbuildings; 17,935 acres
Eagle Fire	FM-5048-WA		8/19/2013	\$2,273,317; No structures damaged; 14,076 acres
North Shore Fire – Lake Wenatchee	NA		7/19/2013	\$1,200,000+ DESTROYED: 3 residences; DAMAGED: 1 residence; 6 acres
Ice Storm – Lake Wenatchee	NA	NA (State emergency declaration denied)	12/20/2012	\$500,000+; 60+ residences damaged; 2 fatalities in vehicle accidents; 4 severely injured in vehicle accidents, hundreds of downed trees
Kahler Glen Avalanche	NA		02/07/2008	\$240,000; DESTROYED: 1 Residence
Dirty Face Fire	FM-2572-WA		7/31/2005	\$1,061,643; 73 residences threatened; 1,150 acres
Tyee Fire – COMPLEX – Tyee Fire; Hatchery Creek Fire; Round Mountain Fire	FSA-2103-WA Includes Hatchery Creek Complex Fire		7/24/1994	\$17,711,728 – total complex; DESTROYED: 37 Structures (residences/outbuildings); 135,000 acres

Flood, Lake Wenatchee	Enter #		November 1990	The flood flow of the Wenatchee River at Plain was 1.3 times greater than the magnitude of the 100-year flood event.
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### 13.6.2 Hazard Risk Ranking

Table 13-10 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 13-10. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
1	Wildfire	54	High
2	Severe Weather	45	High
3	Earthquake	32	Medium
4	Flood	18	Medium
5	Landslide	18	Medium
6	Dam or Levee Failure	12	Low
7	Drought	9	Low
8	Avalanche	0	Low

### 13.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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:

- Fires coming off of USFS Lands onto private lands and into our community.
- During extreme cold events travel is hampered with residents often unable to leave their homes in addition to lack of power, shelter, heat, and access to well water.
- Lack of a facility to shelter and feed displaced community members or coordinate emergency operations.
- A large visitor population that may not be aware of wildfire risk.
- Neighborhoods of Ponderosa, River Rd., South Shore, White River Rd. and Shugart Flats have single ingress/egress path that could be cut off as the result of wildfire, severe weather, etc.
- Dense vegetation on either side of main evacuation routes.

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

### 13.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 13-11 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 13-11. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
<b>FD9-1—Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses.</b>	Carried over to updated plan	FD9-1
<i>Comment:</i> Still a district priority but no action was taken during the last plan.		
<b>FD9-2—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</b>	Completed	N/A
<i>Comment:</i> District actively participates in maintenance protocols.		
<b>FD9-3—Acquire property for the expansion of fire district resources to include shared spaces for Public Safety providers, refuge for citizens impacted during emergencies, and command and control facilities for responders.</b>	Carried over to updated plan	FD9-2
<i>Comment:</i> Phase 1 completed. Hill St. property (Station 93 addition) was purchased in 2019, Butcher Creek (Station 95) purchased in 2021. Still need funding to build infrastructure.		
<b>FD9-4—Hire seasonal workers to assist in fuel reduction, response planning and Initial Attack</b>	Carried over to updated plan	FD9-4
<i>Comment:</i> First seasonal fuels crew hired in 2019, First Wildfire Risk Reduction Coordinator hired in 2021.		
<b>FD9-5—Adopt a county-wide WUI code to reduce the impact on homes during wildfire events.</b>	Removed	N/A
<i>Comment:</i> Still a district priority but no action was taken during the last plan. Adoption is responsibility of jurisdictions.		
<b>FD9-6—Increase public awareness and participation in fuel reduction programs aimed at providing defensible spaces around residences.</b>	Carried over to updated plan	FD9-5
<i>Comment:</i> We operate a chipper in conjunction with our seasonal fuels crew and our Wildfire Home Assessments.		
<b>FD9-7—Improve early notification of emergencies and subsequent evacuation plans.</b>	Carried over to updated plan	FD9-6
<i>Comment:</i> We received a grant and ordered 5 new mass notification sirens for our district in April of 2024.		
<b>FD9-8—Develop alternative egress routes for communities limited to single ingress and egress points, or major fuel reduction along paths of egress.</b>	Carried over to updated plan	FD9-7
<i>Comment:</i> Still a district priority.		
<b>FD9-9—Strengthen interagency agreements to bolster responses to emergencies.</b>	Completed	N/A
<i>Comment:</i> Mutual Aid agreements with Fire District and new contractual agreements with FS and DNR, expanded DNR to include prescribed burning 2023		
<b>FD9-10—Develop a strategy to provide staffed engines and response apparatus during predicted and ongoing operations.</b>	Removed; no longer feasible	N/A
<i>Comment:</i> We want to revisit the concept of pre-deployment.		
<b>FD9-11—Develop community and neighborhood recovery strategies</b>	Carried over to updated plan	FD9-9
<i>Comment:</i> Still a district priority but no action was taken during the last plan.		



**FD9-12—Implement early educational engagement with schools to expand personal protective and community response strategies.**

Carried over to updated plan

FD9-9

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***Comment:*** Still a district priority, combined with FD9-11 to create one cohesive action.

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### 13.8 HAZARD MITIGATION ACTION PLAN

Table 13-12 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 13-13 identifies the priority for each action. Table 13-14 summarizes the mitigation actions by hazard of concern and mitigation type. Completed action worksheets are on file with the district

**Table 13-12. Hazard Mitigation Action Plan Matrix**

Benefits New or Existing Assets	Objectives Met	Goals Met	Lead Agency	Support Agency	Estimated Cost	Potential Funding Sources	Timeline
<p><b>Action FD9-1</b> — Where appropriate, support retrofitting or relocation of structures in high hazard areas, prioritizing structures that have experienced repetitive losses, including Station 92 and 95, that are not up to current hazard codes.</p> <p><b>Hazards Mitigated:</b> Avalanche, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
New and Existing	1, 2, 4, 6, 8, 9	1, 2, 4, 6	Lake Wenatchee Fire and Rescue		Very High	BRIC, HMGP, PDM	Long-Term
<p><b>Action FD9-2</b>— Build a centrally located facility that provides shelter and food for residents impacted during emergencies and supports command and control during emergency operations.</p> <p><b>Hazards Mitigated:</b> Avalanche, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
New and Existing	1, 2, 6, 8, 9	1, 2, 4, 6	Lake Wenatchee Fire and Rescue		Very High	BRIC, HMGP, PDM, Congressionally directed spending	Short-Term
<p><b>Action FD9-3</b>— Build new station to replace 93 at Hill St. Property.</p> <p><b>Hazards Mitigated:</b> Earthquake, Flood, Landslide, Severe Weather, Wildfire</p>							
New and Existing	1, 2, 4, 6, 8, 9	1, 2, 4, 6	Lake Wenatchee Fire and Rescue		Very High	BRIC, HMGP, PDM	Short-Term
<p><b>Action FD9-4</b>— Hire fuels crew to assist in fuel reduction, community outreach/education and support initial attack. Removing fuel will also mitigate falling debris in severe weather events.</p> <p><b>Hazards Mitigated:</b> Severe Weather, Wildfire</p>							
Not applicable	3, 4, 5, 6, 7, 8, 9, 11	1, 4, 5, 6	Lake Wenatchee Fire and Rescue		Very High	BRIC, HMGP, PDM, FEMA FP&S, CWDG	Short-Term
<p><b>Action FD9-5</b>— Hire Wildfire Risk Reduction Coordinator to increase public awareness and participation in fuel reduction programs aimed at providing defensible spaces around residences.</p> <p><b>Hazards Mitigated:</b> Wildfire</p>							

Not applicable	3, 4, 5, 6, 7, 9, 11	1, 3, 5, 6	Lake Wenatchee Fire and Rescue		High	BRIC, HMGP, PDM, CWDG, FEMA FP&S	Short-Term
<b>Action FD9-6</b> — Install mass notification system.							
<b>Hazards Mitigated:</b> Avalanche, Earthquake, Flood, Landslide, Severe Weather, Wildfire							
New and Existing	1, 2, 4, 6, 8, 9, 11	1, 4, 5, 6	Lake Wenatchee Fire and Rescue	Chelan County Department of Emergency Management, Chelan County PUD	Very High	HMGP	Short-Term
<b>Action FD9-7</b> — Improve roadway survivability in the event of wildfire evacuation or severe weather; decrease flame length along roadways.							
<b>Hazards Mitigated:</b> Severe Weather, Wildfire							
Not applicable	2, 3, 4, 5, 6, 7, 9	1, 2, 3, 6	Lake Wenatchee Fire and Rescue	Chelan County DNR, Forest Service, Private Property Owners, Chelan County PUD	High	BRIC, HMGP, Staff Time, CWDG, FEMA FP &S	Short-Term
<b>Action FD9-8</b> — Develop a tactical wildfire defense plan; identify PODS, critical infrastructure, defensive points and vulnerabilities within the District.							
<b>Hazards Mitigated:</b> Wildfire							
Not applicable	2, 6, 7, 8, 11	1, 2, 4, 5, 6	Lake Wenatchee Fire and Rescue	Other Chelan County Fire Departments, Cascade Medical, Department of Emergency Management	Moderate	HMGP, PDM, Staff Time	Short-Term
<b>Action FD9-9</b> — Implement early educational engagement with school-aged children to educate them on what to do in the event of any emergency; wildfire, severe weather, medical emergency, etc.							
<b>Hazards Mitigated:</b> Earthquake, Severe Weather, Wildfire							
Not applicable	11	5, 6	Lake Wenatchee Fire and Rescue		Low	Staff Time, FEMA FP&S	Short-Term
<b>Action FD9-10</b> — Provide GIS training to staff.							
<b>Hazards Mitigated:</b> Avalanche, Drought, Earthquake, Flood, Landslide, Severe Weather, Wildfire							

Not applicable	2, 3, 4, 5, 6, 7, 9, 11	1, 2, 3, 4, 5, 6	Lake Wenatchee Fire and Rescue		Low	BRIC, HMGP, PDM, FMA, Staff Time, District CIP Budget, CWDG, FEMA FP&S	Short-Term
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Acronyms used here are defined at the beginning of this volume.

**Table 13-13. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Grant Eligibility	Nature-Based Solution	Climate Change	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	Timeline	Policy and Objective Support	Community Support	Total Score	Priority
FD9-1	3	3	3	3	3	0	3	3	3	3	3	3	3	3	3	42	High
FD9-2	3	3	3	3	3	0	1	3	3	3	3	3	3	3	3	40	High
FD9-3	3	3	3	3	3	0	1	3	3	3	3	3	3	3	3	40	High
FD9-4	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	43	High
FD9-5	3	3	3	3	3	1	3	3	3	3	3	0	3	3	3	40	High
FD9-6	3	3	3	3	3	1	3	0	3	3	3	3	3	3	3	40	High
FD9-7	3	3	3	3	0	1	3	3	3	3	3	3	3	3	1	38	High
FD9-8	3	3	3	3	3	1	1	3	3	3	1	0	3	3	3	36	High
FD9-9	3	0	3	3	3	1	3	0	0	1	3	3	3	3	3	32	High
FD9-10	3	3	3	3	3	1	3	1	3	3	3	3	3	3	3	41	High

**Table 13-14. Mitigation Action Classification**

Action	Mitigation Classification	High-Ranked Hazard		Medium-Ranked Hazard			Low-Ranked Hazard		
		Wildfire	Severe Weather	Earthquake	Flood	Landslide	Drought	Dam or Levee Failure	Avalanche
FD9-1	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●		●	●
FD9-2	Property Protection, Emergency Services, Structural Projects, Climate Resilience	●	●	●	●	●	●		●
FD9-3	Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●			
FD9-4	Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●	●						
FD9-5	Property Protection, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●							
FD9-6	Property Protection, Public Education and Awareness, Emergency Services, Structural Projects, Climate Resilience, Community Capacity Building	●	●	●	●	●			●
FD9-7	Prevention, Natural Resource Protection, Emergency Services, Climate Resilience	●	●						
FD9-8	Prevention, Public Education and Awareness, Emergency Services, Climate Resilience, Community Capacity Building	●							
FD9-9	Public Education and Awareness	●	●	●					
FD9-10	Prevention, Public Education and Awareness, Natural Resource Protection, Emergency Services, Climate Resilience, Community Capacity Building	●	●	●	●	●	●		●

### 13.9 PUBLIC OUTREACH

Table 13-15 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 13-15.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
Printed (and emailed) Newsletter	Quarterly	District-wide
Website: LWFR.org	Ongoing	
Department Facebook and Instagram	Weekly	7,427 FB followers, 900 on Instagram
Home Assessments from 2023 to June of 2024	60 (ongoing)	
Youth Presentations at YMCA Camp, Beaver Valley School, Tall Timber Camp, Lake Wenatchee State Park)	Annual	
Establishing and maintaining Firewise Communities (assisting communities with reporting requirements, assessments, etc.)	Quarterly	
Published Local Evacuation Plan/Ready Set Go Pamphlet	2020	
Community Outreach (mobile integrated health program)	Monthly	25 clients

### 13.10 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **2019 Community Wildfire Protection Plan (CWPP)**—Referenced past zone descriptions, wildfire history, etc.
- **2019 Chelan County Hazard Mitigation Plan**—Referenced natural hazards, other districts, etc.
- **Living With Wildfire in Lake Wenatchee, Chelan County, Washington: 2022 Data Report**—Describe use of document

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.

## **CHELAN COUNTY HAZARD MITIGATION PLAN UPDATE PLANNING PARTNER EXPECTATIONS**

- **Estimated level of effort.** It is estimated that the total time commitment to meet these “participation” requirements for a planning partner not participating on the Steering Committee would be approximately 40 hours over the twelve month period.
- **Participate in the process.** This means to support the process to the best of your capabilities. This planning process will utilize a Steering Committee that will assume responsibility for many of the planning milestones prescribed for this process. The Steering Committee will be representative of the whole and will meet periodically throughout the process and provide direction and guidance to the planning team. Steering Committee meetings are not mandatory meetings for all planning partners. This means that if you are not on the Steering Committee, your attendance is not required. However, it is our hope that all planning partners will attempt to remain engaged with this process. This process is anticipated to take eight months to complete. It will be easy to become disconnected with the process objectives if you do not participate in some of these meetings to some degree. The planning team will also request support from the partnership during the public involvement phase of the planning process. Support could be in the form of providing venues for public meetings, attending these meetings as meeting participants, providing technical support, etc.
- **Consistency Review.** All planning partners will be asked to identify their capabilities during this process. This capability assessment will require a review of existing documents (plans, studies and ordinances) pertinent to each jurisdiction to identify policies or recommendations that are consistent with those in 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).
- **Cost.** This project is partially funded by a FEMA planning grant. The grant match will be met by cash contributions provided by the planning partners.
- **Plan must be adopted by resolution each jurisdiction.**

If you are ready to participate, please fill out a Letter of Intent to participate using our template on your agency’s letterhead and email to Lisa Dowling at [lisa.dowling@co.chelan.wa.us](mailto:lisa.dowling@co.chelan.wa.us). If you have questions, please call Lisa at 509-679-8532.

## Letter of Intent Template

Copy this template onto your own letterhead

### Chelan County Hazard Mitigation Planning Partnership

c/o Lisa Dowling

Chelan County Natural Resource Department

411 Washington Street, Suite 20

Wenatchee, WA 98801

### **Date**

Dear Chelan County Planning Partnership,

Please be advised that the \_\_\_\_\_ (*insert City or district name*) \_\_\_\_\_ is committed to participating in the update to the Chelan County Hazard Mitigation Plan. As the Chief Administrative Official for this jurisdiction, I certify that I will commit all necessary resources in order to meet Planning Partnership expectations as outlined in the "Planning Partners expectations" document provided by the planning team, in order to obtain Disaster Mitigation Act (DMA) compliance for our jurisdiction.

Mr./Ms. \_\_\_\_\_ (*insert name*) \_\_\_\_\_ will be our jurisdiction's point of contact for this process and they can be reached at \_\_\_\_\_ (*insert address, phone number, and e-mail address*) \_\_\_\_\_.

Our jurisdiction commits to contributing \_\_\_\_\_ (*insert \$*) \_\_\_\_\_ to the planning process.

Sincerely,

\_\_\_\_\_  
(*insert name*)\_\_\_\_\_



## **APPENDIX B. PROCEDURES FOR LINKING TO THE HAZARD MITIGATION PLAN UPDATE**

Not all eligible local governments within Chelan County are included in the Chelan County Hazard Mitigation Plan Update. It is assumed that some or all of these non-participating local governments may choose to “link” to the Plan at some point to gain eligibility for programs under the federal Disaster Mitigation Act. In addition, some of the current partnership may not continue to meet eligibility requirements due to a lack of participation as prescribed by the plan. The following “linkage” procedures define the requirements established by the Plan’s Steering Committee and all planning partners for dealing with an increase or decrease in the number of planning partners linked to this plan. It should be noted that a currently non-participating jurisdiction within the defined planning area is not obligated to link to this plan. These jurisdictions can choose to do their own “complete” plan that addresses all required elements of section 201.6 of 44CFR.

### **INCREASING THE PARTNERSHIP THROUGH LINKAGE**

Eligible linking jurisdictions are instructed to complete all of the following procedures:

- The eligible jurisdiction requests a “Linkage Package” by contacting Chelan County Department of Emergency Management for the plan:

The linkage package will include:

- A copy of Volume 1 and 2 of the plan (electronic or paper format).
  - Planning partner’s expectations package.
  - A sample “letter of intent” to link to the Hazard Mitigation Plan Update.
  - A Special Purpose District or City template and instructions.
  - Catalog of Hazard Mitigation Alternatives
  - A “request for technical assistance” form.
  - A copy of Section 201.6 of Chapter 44, the Code of Federal Regulations (44CFR), which defines the federal requirements for a local hazard mitigation plan.
- The new jurisdiction will be required to review both volumes of the Hazard Mitigation Plan Update, which includes the following key components for the planning area:
    - The planning area risk assessment
    - Goals and objectives
    - Plan implementation and maintenance procedures
    - Comprehensive review of alternatives
    - County-wide initiatives.

Once this review is complete, the jurisdiction will complete its specific annex using the template and instructions provided. Technical assistance can be provided upon request by completing the request. This assistance may be provided by the point of contact at Chelan County Emergency Management or any other resource within the Planning Partnership such as a member of the Steering Committee or a currently participating City or Special Purposes District partner. The point of contact will determine who will provide the technical assistance and the possible level of assistance based on resources available at the time of the request.

- The new jurisdiction will be required to develop a public involvement strategy that ensures the public's ability to participate in the plan development process. At a minimum, the new jurisdiction must make an attempt to solicit public opinion on hazard mitigation at the onset of this linkage process and a minimum of one public meeting to present their draft jurisdiction specific annex for comment, prior to adoption by the governing body. The Planning Partnership will have resources available to aid in the public involvement strategy. However, it will be the new jurisdiction's responsibility to implement and document this strategy for incorporation into its annex. It should be noted that the Jurisdictional Annex templates ***do not*** include a section for the description of the public process. This is because the original partnership was covered under a uniform public involvement strategy that covered the planning area described in Volume 1 of the plan. Since new partners were not addressed by that strategy, they will have to initiate a new strategy, and add a description of that strategy to their annex. For consistency, new partners are encouraged to follow the public involvement format utilized by the initial planning effort as described in Volume 1 of the plan.
- Once their public involvement strategy is completed and they have completed their template, the new jurisdiction will submit the completed package to Chelan County Emergency Management for a pre-adoption review to ensure conformance with the plan format.
- The following will be reviewed:
  - Documentation of Public Involvement strategy
  - Conformance of template entries with guidelines outlined in instructions
  - Chosen initiatives are consistent with goals, objectives and mitigation catalog of the Planning Area Hazard Mitigation Plan Update
  - A Designated point of contact
  - A ranking of risk specific to the jurisdiction.

The point of contact may utilize members of the Steering Committee or other resources to complete this review. All proposed linked annexes will be submitted to the Steering Committee for review and comment prior to submittal to Washington State Military Department, Emergency Management Division.

- Plans approved and accepted by the Steering Committee will be forwarded to Washington State Military Department, Emergency Management Division for review with a cover letter stating the forwarded plan meets local approved plan standards and whether the plan is submitted with local adoption or for criteria met/plan not adopted review.
- Washington Military Department Emergency Management Division reviews plans for federal compliance. Non-Compliant plans are returned to the lead agency for

correction. Compliant plans are forwarded to FEMA for review with annotation as to the adoption status.

- FEMA reviews the new jurisdiction's plan in association with the approved plan to ensure DMA compliance. FEMA notifies new jurisdiction of results of review with copies to Washington State Military Department, Emergency Management Division and approved planning authority.
- New jurisdiction corrects plan shortfalls (if necessary) and resubmits to the State through the approved plan lead agency.
- For plans with no shortfalls from the FEMA review that have not been adopted, the new jurisdiction governing authority adopts the plan (if not already accomplished) and forwards adoption resolution to FEMA with copies to Chelan County Emergency Management and the State.
- FEMA regional director notifies new jurisdiction governing authority of plan approval.

The new jurisdiction plan is then included with the regional plan with the commitment from the new jurisdiction to participate in the ongoing plan implementation and maintenance.

## **DECREASING THE PARTNERSHIP**

The eligibility afforded under this process to the planning partnership can be rescinded in two ways. First, a participating planning partner can ask to be removed from the partnership. This may be done because the partner has decided to develop its own plan or has identified a different planning process for which it can gain eligibility. A partner that wishes to voluntarily leave the partnership shall inform Chelan County Emergency Management of this desire in writing. This notification can occur any time during the calendar year. A jurisdiction wishing to pursue this avenue is advised to make sure that it is eligible under the new planning effort, to avoid any period of being out of compliance with the Disaster Mitigation Act.

After receiving this notification, Chelan County Emergency Management shall notify the State and FEMA in writing that the partner in question is no longer covered by the Hazard Mitigation Plan Update, and that the eligibility afforded that partner under this plan should be rescinded based on this notification.

The second way a partner can be removed from the partnership is by failure to meet the participation requirements specified in the "Planning Partner Expectations" package provided to each partner at the beginning of the process, or the plan maintenance and implementation procedures specified under Chapter 20 in Volume 1 of the plan. Each partner agreed to these terms by adopting the plan.

Eligibility status of the planning partnership will be monitored by Chelan County Emergency Management. The determination of whether a partner is meeting its participation requirements will be based on the following parameters:

- Are progress reports being submitted annually by the specified time frames?
- Are partners notifying Chelan County Emergency Management of changes in designated points of contact?
- Are the partners supporting the Steering Committee by attending designated meetings or responding to needs identified by the body?

- Are the partners continuing to be supportive as specified in the Planning Partners expectations package provided to them at the beginning of the process?

Participation in the plan does not end with plan approval. This partnership was formed on the premise that a group of planning partners would pool resources and work together to strive to reduce risk within the planning area. Failure to support this premise lessens the effectiveness of this effort. The following procedures will be followed to remove a partner due to the lack of participation:

- The point of contact at Chelan County Emergency Management will advise the Steering Committee of this pending action and provide evidence or justification for the action. Justification may include: multiple failures to submit annual progress reports, failure to attend meetings determined to be mandatory by the Steering Committee, failure to act on the partner's action plan, or inability to reach designated point of contact after a minimum of five attempts.
- The Steering Committee will review information provided by point of contact, and determine action by a vote. The Steering Committee will invoke the voting process established in the ground rules established during the formation of this body.
- Once the Steering Committee has approved an action, the point of contact will notify the planning partner of the pending action in writing via certified mail. This notification will outline the grounds for the action, and ask the partner if it is their desire to remain as a partner. This notification shall also clearly identify the ramifications of removal from the partnership. The partner will be given 30 days to respond to the notification.
- Confirmation by the partner that they no longer wish to participate or failure to respond to the notification shall trigger the procedures for voluntary removal discussed above.
- Should the partner respond that they would like to continue participation in the partnership, they must clearly articulate an action plan to address the deficiencies identified by the point of contact. This action plan shall be reviewed by the Steering Committee to determine whether the actions are appropriate to rescind the action. Those partners that satisfy the Steering Committee's review will remain in the partnership, and no further action is required.
- Automatic removal from the partnership will be implemented for partners where these actions have to be initiated more than once in a 5 year planning cycle.

# **INSTRUCTIONS FOR COMPLETING MUNICIPAL ANNEX TEMPLATE**

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## PHASE 1 INSTRUCTIONS

### CHAPTER TITLE

In the chapter title at the top of Page 1, type in the complete official name of your municipality (e.g., City of Smithburg, West County). Do not change the chapter number. Revise only the jurisdiction name. If your jurisdiction's name has already been entered, verify that wording and spelling are correct; revise as needed.

### LOCAL HAZARD MITIGATION PLANNING TEAM

#### Points of Contact

Provide the name, title, mailing address, telephone number, and e-mail address for the primary point of contact for your jurisdiction. This should be the person responsible for monitoring, evaluating and updating the annex for your jurisdiction. This person should also be the principle liaison between your jurisdiction and the Steering Committee overseeing development of this plan.

In addition, designate an alternate point of contact. This would be a person to contact should the primary point of contact be unavailable or no longer employed by the jurisdiction.

*Note: Both of these contacts should match the contacts that were designated in your jurisdiction's letter of intent to participate in this planning process. If you have changed the primary or secondary contact, let the planning team know by inserting a comment into the document.*

#### Participating Planning Team

Populate Table 1-1 with the names of staff from your jurisdiction who participated in preparing this annex or otherwise contributed to the planning process for this hazard mitigation plan.

### JURISDICTION PROFILE

Provide information specific to your jurisdiction as indicated, in a style similar to the examples provided below. This should be information that will not be provided in the overall mitigation plan document.

If Municipal (incorporated city) GIS data files are available, please send with your completed Phase 1. The files should include GIS data for facilities such as city halls, public works buildings, community centers, city police stations, city fire stations.

#### Location and Features

Describe the community's location, size and prominent features, in a statement similar to the example below:

#### Who Should Be on the Local Mitigation Planning Team

The Local Hazard Mitigation Planning Team is responsible for developing your jurisdiction's annex to the hazard mitigation plan. Team membership should represent agencies with authority to regulate development and enforce local ordinances or regulatory standards, such as building/fire code enforcement, emergency management, emergency services, floodplain management, parks and recreation, planning/ community development, public information, public works/ engineering, stormwater management, transportation, or infrastructure.

**EXAMPLE:** The City of Jones is in the northwest portion of Smith County, along the Pacific Coast in northern California. It is almost 150 miles northeast of San Francisco. The city's total area is 4.2 square miles, with boundaries generally extending north-south from State Highway 111 to the Johnson River and east-west from Coast Road to East Frank Avenue. The City of Allen is to the north, unincorporated county is to the west, the City of Bethany is to the south, and the Pacific Ocean is to the west.

Jones is home to the University of Arbor, Bickerson Manufacturing, and the western portion of Soosoo National Park. Significant geographic features include the Watery River, which flows southwest across the city, Lake Splash in the city's northwest corner, and the foothills of the Craggy Mountains on the east side.

## History

Describe the community's history, focusing on economy and development, and note its year of incorporation, in a statement similar to the example below:

**EXAMPLE:** The City of Jones was incorporated in 1858. The area was settled during the gold rush in the 1850s as a supply center for miners. As the gold rush died down, timber and fishing became the area's major economic resources. By 1913, the Jones Teachers College, a predecessor to today's University of Arbor, was founded. Recently, the presence of the college has come to shape Jones' population into a young and educated demographic. In 1981 the City developed the Jones Marsh and Wildlife Sanctuary, an environmentally friendly sewage treatment enhancement system.

With numerous annexations since its original incorporation, the city's area has almost doubled. Today it features a commercial core in the center of the city, with mostly residential areas to the north and south, the university to the west and the national park on the east.

## Governance

Describe the community's key governance elements and staffing, in a statement similar to the example below:

**EXAMPLE:** The City of Jones is governed by a five-member city council. The City consists of six departments: Finance, Environmental Services, Community Development, Public Works, Police, and the City Manager's Office. The City has 13 commissions and task forces, which report to the City Council. The City currently employs a total of 155 employees (full-time equivalent).

The City Council assumes responsibility for the adoption of this plan; the City Manager will oversee its implementation.

## CURRENT TRENDS

### Population

Provide the most current population estimate for your jurisdiction based on an official means of tracking (e.g., the U.S. Census or state agency that develops population estimates). Describe the current estimate and recent population trends in a statement similar to the example below.

**EXAMPLE:** According to California Department of Finance, the population of Jones as of July 2020 was 17,280. Since 2010, the population has grown at an average annual rate of 1.2 percent, though that rate is declining, with an annual average of only 0.8 percent since 2015.

## **Vulnerable Population**

This section will be completed in a later phase after social vulnerability has been defined for this planning effort.

## **Development**

In the highlighted text that says “Describe trends in general,” provide a brief description of your jurisdiction’s recent development trends in a statement similar to the example below:

**EXAMPLE:** Anticipated future development for Jones is low to moderate, consisting primarily of residential growth. Recent development has been mostly infill. There has been a focus on affordable housing and a push for more secondary mother-in-law units. Future growth in the City will be managed as identified in the City’s 2018 general plan. City actions, such as those relating to land use, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with the plan.

Complete the table titled “Recent and Expected Future Development Trends.” Note:

- The portion of the table requesting the number of permits by year is specifically looking for development permits for **new** construction. If your jurisdiction does not have the ability to differentiate between permit types, list the total number of permits and indicate “N/A” (not applicable) for the permit sub-types.
- If your jurisdiction does not have the ability to track permits by hazard area, delete the bullet list of hazard areas and insert a qualitative description of where development has occurred.

## **STATUS OF PREVIOUS PLAN ACTIONS**

***Note that this section only applies to jurisdictions that are conducting updates to previously approved hazard mitigation plans. If your jurisdiction has not previously participated in an approved plan, enter an “X” in the box at the beginning of this section and do not complete the section. We will remove this section from your final annex.***

***Also note that this section will be further back in the final annex than the rest of the Phase 1 content. Some Phase 2 sections will be included before it.***

All action items identified in prior mitigation plans must be reconciled in this update. Action items must all be marked as **ONE** of the options below; select the appropriate status from the dropdown list and provide information as follows:

- **Completed**—If an action has been completed since the prior plan was prepared, select “Completed” and **provide a date of completion in the comment section.**
- **Removed**—If action items are to be removed because they are no longer feasible, a reason must be given. Lack of funding does not mean that it is no longer feasible, unless the sole source of funding for an action is no longer available. **Place a comment in the comment section explaining why the action is no longer feasible or barriers that prevented the action from being implemented (e.g., “Action no longer considered feasible due to lack of political support.”)**. If the wording and/or intent of a previously identified action is unclear, this can be a reason for removal. A change in community priorities may also be a reason for removal and should be discussed in the comments.



- **Carried Over to Plan Update**—If an action is in progress, is ongoing, or has not been initiated and you would like to carry it over to the plan update, select “Carried Over to Updated Plan.” Selecting this option indicates that the action will be included in the mitigation action plan for this update. If you are carrying over an action to the update, **include a comment describing any action that has been taken or why the action was not taken** (specifically, any barriers or obstacles that prevented the action from moving forward or slowed progress). Leave the last column, “New Action #,” blank at this point. This will be filled in after completing the updated action plan in Phase 3.

Ensure that you have provided **a status and a comment for each action.**

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, all action items from your jurisdiction’s previous hazard mitigation plan that are marked as “Carried Over to Plan Update” will need to be included in the action plan.

## PUBLIC OUTREACH

***Note that this section is part of the Phase 3 annex, but documentation can begin in Phase 1.***

FEMA requirements for public outreach need to be met by each planning partner. These may include public meetings, a StoryMap website, surveys, etc.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.)

**THIS COMPLETES PHASE 1**

## PHASE 2 INSTRUCTIONS

### CAPABILITY ASSESSMENT

***Note that it is unlikely that one person will be able to complete all sections of the capability assessment alone. The primary preparer will likely need to reach out to other departments within the local government for information. It may be beneficial to provide these individuals with background information about this planning process, as input from them will be needed again during Phase 3 of the annex development.***

### Planning and Regulatory Capability

In the table titled “Planning and Regulatory Capability,” indicate “Yes” or “No” for each listed code, ordinance, requirement or planning document in each of the following columns:

- **Local Authority**—Select “Yes” if your jurisdiction has prepared or adopted the identified item; otherwise, select “No.” If yes, then enter the code, ordinance number, or plan name and its date of adoption in the comments column. ***Note: If you select yes, be sure to provide a comment with the appropriate code, ordinance or plan and date of adoption.***
- **Other Jurisdiction Authority**—Select “Yes” if another agency (e.g., a state agency or special purpose district) enforces or administers the identified item in a way that may impact your jurisdiction or if any state or federal regulations or laws would prohibit local implementation of the identified item; otherwise, select “No.” ***Note: If you select yes, be sure to provide a comment indicating the other agency and its relevant authority.***
- **State Mandated**—Select “Yes” if state laws or other requirements enable or require the listed item to be implemented at the local level; otherwise, select “No.” ***Note: If you select yes, be sure to provide a comment describing the relevant state mandate.***
- **Integration Opportunity**—Select “Yes” if there are obvious ways that the code, ordinance or plan can be coordinated with the hazard mitigation plan. Consider the following:
  - If you selected “Yes” in the Local Authority column for this item, then select “Yes” for integration opportunity if any of the following are true:
    - The item already addresses hazards and their impacts and should be updated to reflect new information about risk from this hazard mitigation plan
    - The item does not address hazards and their impacts but is due for an update in the next 5 years and could be updated in a way that does address hazards and impacts
    - The item identifies projects for implementation and these could be reviewed to determine if they can be modified to help address hazard mitigation goals
    - The item identifies projects for implementation and some of these should be considered for inclusion in the hazard mitigation action plan for your jurisdiction
  - If you selected “No” in the Local Authority column for this item, then select “Yes” for integration opportunity if your jurisdiction will develop the item over the next 5 years

***Note: Each capability with a “Yes” answer to Integration Opportunity will be discussed in more detail later in the annex. You may wish to keep notes when assessing the Integration Opportunity or review the “Integration with Other Planning Initiatives” section below.***

- **Comments**—Enter the code number and adoption date for any local code indicated as being in place; provide other comments as appropriate to describe capabilities for each entry. **DO NOT OVERLOOK THIS STEP**

For the categories “General Plan” and “Capital Improvement Plan,” answer the specific questions shown, in addition to completing the four columns indicating level of capability.

### Development and Permit Capability

Complete the table titled “Development and Permitting Capabilities.”

### Fiscal Capability

Complete the table titled “Fiscal Capability” by indicating whether each of the listed financial resources is accessible to your jurisdiction. Select “Yes” if the resource is fully accessible to your jurisdiction. Select “No” if there are limitations or prerequisites that may hinder your use of this resource.

### Administrative and Technical Capability

Complete the table titled “Administrative and Technical Capability” by indicating whether your jurisdiction has access to each of the listed personnel resources. Select “Yes” or “No” in the column labeled “Available?”. If yes, then enter the department and position title. If you have contract support with these capabilities, you can still select “Yes.” Indicate in the department row that this resource is provided through contract.

### Education and Outreach Capability

Complete the table titled “Education and Outreach.”

**HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, review all the above capability assessment tables and consider including actions to provide a capability that your jurisdiction does not currently have, update a capability that your jurisdiction does have, or implement an action that is recommended in an existing plan or program.

### National Flood Insurance Program Compliance

Complete the table titled “National Flood Insurance Program Compliance.” If you do not have the information for the last two sections on flood insurance policies in force and total loss claims, please leave this section blank. We will complete it for you.

## Community Classifications

Complete the table titled “Community Classifications” to indicate your jurisdiction’s participation in various national programs related to natural hazard mitigation. For each program select “Yes” or “No” in the second column to indicate whether your jurisdiction participates. If yes, then enter your jurisdiction’s identification number in the program in the third column, the classification that your jurisdiction has currently earned under the program in the fourth column and the date on which that classification was issued in the fifth column. Enter “N/A” in the third, fourth, and fifth columns if your jurisdiction is not participating. If you do not know your current identification number or classification, information is available at the following websites:

- **FIPS Code**— <https://www.census.gov/geographies/reference-files/2018/demo/popest/2018-fips.html>
- **UEI #**— [SAM.gov](https://sam.gov) | [Duns - Sam UEI](https://sam.gov)
- **Community Rating System**— <https://www.fema.gov/floodplain-management/community-rating-system>
- **Building Code Effectiveness Grading Schedule**— <https://www.isomitigation.com/bcegs/iso-s-building-code-effectiveness-grading-schedule-bcegs.html>
- **Public Protection Classification**— <https://www.isomitigation.com/ppc/>
- **Storm Ready**— <https://www.weather.gov/stormready/communities>
- **Firewise**— <http://www.firewise.org/usa-recognition-program/map-of-active-participants.aspx>

## Adaptive Capacity for Climate Change

Consider climate change impact concerns such as the following:

- Reduced snowpack
- Increased wildfires
- Inland flooding
- Threats to sensitive species
- Loss in agricultural productivity
- Public health and safety.

With those impacts in mind, complete the table titled “Adaptive Capacity for Climate Change” by indicating your jurisdiction’s capacity for each listed criterion as follows:

- **High**—The capacity exists and is in use.
- **Medium**—The capacity may exist, but is not used or could use some improvement.
- **Low**—The capacity does not exist or could use substantial improvement.
- **Unsure**—Not enough information is known to assign a rating.

This is a subjective assessment, but providing a few words of explanation is useful. It is highly recommended that you complete this table with an internal planning team after reviewing the results of the other capability assessment tables.

### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, review all the adaptive capacity criteria and consider including actions to improve the rating for those rated medium or low, to make use of the capacity for those rated high, or to acquire additional information for those rated unsure.

## INTEGRATION REVIEW

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. FEMA recommends integration as follows:

- Integrate hazard mitigation plan goals with community objectives (e.g. incorporate the goals for risk reduction and safety into the policies of other plans).
- Use the risk assessment to inform plans and policies (e.g. incorporate risk assessment findings into land use plans, site plan review, emergency operations plans).
- Implement mitigation actions through existing mechanisms (e.g. include mitigation projects in the capital improvement plan).
- Think about mitigation before and after a disaster (e.g. build recovery planning on existing mitigation plans and goals).

After reviewing the plans, programs and ordinances identified in the capability assessment tables, identify all plans and programs that have already been integrated with the hazard mitigation plan, and those that offer opportunities for future integration. The simplest way to do this is to review the Planning and Regulatory Capabilities table to see which items were marked as “Yes” under the Integration Opportunity column.

## Existing Integration

In the bullet list, list items for which you entered “Yes” under the Integration Opportunity column of the “Planning and Regulatory Capability” table because the plan or ordinance already addresses potential impacts or includes specific projects that should be included as action items in the mitigation action plan. Consider listing items marked as Completed in the “Status of Previous Plan Actions” table if they were indicated as being ongoing actions. Provide a brief description of how the plan or ordinance is integrated. Examples are as follows:

- **Capital Improvement Plan**—The capital improvement plan includes projects that can help mitigate potential hazards. The City will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- **Building Code and Fire Code**—The City’s adoption of the 2016 California building and fire codes incorporated local modifications to account for the climatic, topographic and geographic conditions that exist in the City.

- **General Plan**—The general plan includes a Safety Element to protect the community from unreasonable risk by establishing policies and actions to avoid or minimize the following hazards:
  - Geologic and seismic hazards
  - Fire hazards
  - Hazardous materials
  - Flood control
  - Impacts from climate change.
- **Climate Action Plan**—The City’s Climate Action Plan includes projects for reducing greenhouse gas emissions and adapting to likely impacts of climate change. These projects were reviewed to identify cross-planning initiatives that serve both adaptation and mitigation objectives.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, any plans that fall into the “Existing Integration” category should be reviewed and elements from them should be included in the action plan as appropriate.

## Opportunities for Future Integration

List any remaining items that say “Yes” in the Integration Opportunity column in the Planning and Regulatory Capabilities table and explain the process by which integration could occur. Examples follow:

- **Zoning Code**—The City is conducting a comprehensive update to its zoning code. Additional mitigation and abatement measures will be considered for incorporation into the code.
- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.
- **Post-Disaster Recovery Plan**—The City does not have a recovery plan and intends to develop one as a mitigation planning action during the next five years. The plan will build on the goals and objectives identified in the hazard mitigation plan.

After you have accounted for all items marked as “Yes” under the Integration Opportunity column, consider other programs you may have in place in your jurisdiction that include routine consideration and management of hazard risk. Examples of such programs may include: tree pruning programs, right-of-way mowing programs, erosion control or stream maintenance programs, etc. Add any such programs to the integration discussion and provide a brief description of how these programs manage (or could be adapted to manage) risk from hazards.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, an action to integrate any identified “Opportunities for Future Integration” should be considered for inclusion in the action plan.

## INFORMATION SOURCES USED FOR THIS ANNEX

***Note that this section will ultimately describe all information sources used to develop this annex, but that only the sources used for Phases 1 and 2 will be listed at this point. Additional sources will be added with the preparation of the Phase 3 annex.***

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

**THIS COMPLETES PHASE 2**

## RISK ASSESSMENT

### Jurisdiction-Specific Natural Hazard Event History

In the table titled “Past Natural Hazard Events,” list in chronological order (most recent first) any natural hazard event that has caused damage to your jurisdiction. Include the date of the event and the estimated dollar amount of damage it caused. If a dollar amount is unknown, write a brief description of the impact and damage. You are welcome to include any events, but special attention should be made to include major storms and federally declared disasters. Refer to the Toolkit document “Presidential Disaster Declarations – Chelan County.xlsx” for a list of federally declared disasters.

We recommend including most large-scale disasters, unless you know that there were no impacts on your jurisdiction. Specifically, we recommend that you include these events if you have damage estimate information or can provide a brief description of impacts that occurred within your community. In addition to these events, refer to the “NOAA Storm Events Database - Chelan County.csv” included in the toolkit. We recommend conducting a search for the name of your jurisdiction in order to identify events with known impacts. Other potential sources of damage information include the following

- Preliminary damage estimates your jurisdiction filed with the county or state
- Insurance claims data
- Newspaper archives
- Emergency management documents (general plan safety element, emergency response plan, etc.)
- Resident input.

If you do not have estimates for costs of damage caused, enter “Not Available” in the “Damage Assessment” column or list a brief description of the damage rather than a dollar value (e.g., Main Street closed as a result of flooding, downed trees and residential damage). Note that tracking such damage is a valid and useful mitigation action if your jurisdiction does not currently track such information.

### Hazard Risk Ranking

Risk ranking identifies which hazards pose the greatest risk to the community, based on how likely it is for each hazard to occur (this is called the community’s exposure) and how great an impact each hazard will have if it does occur (this is called the community’s vulnerability). Every jurisdiction has differing degrees of risk exposure and vulnerability and therefore needs to rank risk for its own area. The risk ranking for each jurisdiction has been calculated in the “Loss Matrix” spreadsheet included in the annex preparation toolkit. These rankings are based on scores for each hazard calculated from the hazard’s probability of occurrence and its potential impact on people, property and the economy.

The results for your jurisdiction have already been entered into the “Hazard Risk Ranking” table in your Phase 3 annex template. The hazard with the highest risk rating is listed at the top of table and was given a rank of 1; the hazard with the second highest rating is listed second with a rank of 2; and so on. Two hazards with equal risk ranking scores were given the same rank. Hazards were assigned to “High,” “Medium,” or “Low” risk categories based on the risk ranking score. If you wish to review the calculations in detail, the appendix at the end of these instructions describes the calculation methodology that the spreadsheet uses.



Review the hazard risk ranking information that is included in your annex. If these results differ from what you know based on substantiated data and documentation, you may alter the ranking and risk categories based on this knowledge. If you do so, indicate the reason for the change in your template. For example:

“Drought was ranked as low; however, the jurisdiction’s economy is heavily reliant on water-using industries, such as agriculture or manufacturing, so this hazard should be ranked as medium.”

#### **HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, you will need to have at least one mitigation action for each hazard ranked as “high” or “medium.”

## **Jurisdiction-Specific Vulnerabilities**

### **Repetitive Loss Properties**

This section has been completed for you by the consultant team.

#### **HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, if your jurisdiction has any repetitive loss properties, you should strongly consider including a mitigation action that addresses mitigating these properties.

### **Other Noted Vulnerabilities**

Review the results of the risk assessment included in the toolkit, your jurisdiction’s natural events history, and any relevant public comments/input, then develop a few sentences that discuss specific hazard vulnerabilities. You do not need to develop a sentence for every hazard, but identify a few issues you would like to highlight. Also list any known hazard vulnerabilities in your jurisdiction that may not be apparent from the risk assessment and other information provided.

Spending some time thinking about the results of the risk assessment and other noted vulnerabilities will be a big help in the development of your hazard mitigation action plan. The following are examples of vulnerabilities you could identify through this exercise:

- About 45 percent of the population lives in the 0.2 percent annual chance flood hazard area, where flood insurance is generally not required.
- A magnitude 7.5 earthquake on the Smithburg Fault is estimated to produce nearly 1 million tons of structure debris.
- Over the past 10 years, the jurisdiction has experienced more than \$6 million in damage from severe storm events.

- More than 50 buildings are located in areas that would be permanently inundated with 12 inches of sea level rise.
- The results of the public survey indicated that 40 percent of Smithburg residents would not be able to be self-sufficient for 5 days following a major event.
- An urban drainage issue at a specific location results in localized flooding every time it rains.
- One area of the community frequently loses power due to a lack of tree maintenance.
- A critical facility, such as a police station, is not equipped with a generator.
- A neighborhood has the potential to have ingress and egress cut off as the result of a flood or earthquake (e.g. a bridge is the only access).
- Substantial number of buildings in one area of the community are unreinforced masonry or soft-story construction.
- An area along the river is eroding and threatening public and/or private property.
- A large visitor population that may not be aware of tsunami risk.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, consider including actions to address the jurisdiction-specific vulnerabilities listed in this section.

## HAZARD MITIGATION ACTION PLAN

Use the “Mitigation Action Worksheet\_Chelan County.docx” in the Toolkit for each mitigation action. You will need one sheet per action, so please download multiple copies.

## EXPANSION OF CORE CAPABILITIES

This section is located earlier in your annex and highlighted green. Please list mitigation actions you have included in your mitigation action worksheets to address the expansion opportunities for each core capability. If your jurisdiction does not have any gaps or need to expand a core capability, please indicate that the capability assessment did not identify a need to expand on the capability.

## PUBLIC OUTREACH

***Note that documentation began in Phase 1, but additional outreach efforts can be listed as applicable.***

FEMA requirements for public outreach need to be met by each planning partner. These may include public meetings, a StoryMap website, surveys, etc.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.)

## INFORMATION SOURCES USED FOR THIS ANNEX

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

## FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

In this section, identify any future studies, analyses, reports, or surveys your jurisdiction needs to better understand its vulnerability to identified or currently unidentified risks. These could be needs based on federal or state agency mandates. **This section is optional.**

## ADDITIONAL COMMENTS

Use this section to add any additional information pertinent to hazard mitigation and your jurisdiction not covered in this template. **This section is optional.**

**THIS COMPLETES PHASE 3**

# 1. ENTER JURISDICTION NAME

---

## 1.1 LOCAL HAZARD MITIGATION PLANNING TEAM

### Primary Point of Contact

Enter POC name, Enter POC title  
Enter POC street address  
Enter POC city, state, Zip  
Enter POC phone #  
Enter POC email address

### Alternate Point of Contact

Enter POC name, Enter POC title  
Enter POC street address  
Enter POC city, state, Zip  
Enter POC phone #  
Enter POC email address

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 1-1.

Table 1-1. Local Hazard Mitigation Planning Team Members

Name	Title
Enter team member name	Enter team member title
Enter team member name	Enter team member title
Enter team member name	Enter team member title
Enter team member name	Enter team member title
Enter team member name	Enter team member title
Enter team member name	Enter team member title
Enter team member name	Enter team member title

## 1.2 JURISDICTION PROFILE

### 1.2.1 Location and Features

Enter text

### 1.2.2 History

Enter text

### 1.2.3 Governance

Enter text

## 1.3 CURRENT TRENDS

### 1.3.1 Population

Enter text

#### Vulnerable Population

Enter text

### 1.3.2 Development

Enter text

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 1-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

**Table 1-2. Recent and Expected Future Development Trends**

Criterion	Response																														
Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan?	Select																														
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	Enter information on size of recent annexation																														
Is your jurisdiction expected to annex any areas during the performance period of this plan?	Select																														
<i>If yes, describe land areas and dominant uses.</i>	Enter description of planned annexation area																														
<i>If yes, who currently has permitting authority over these areas?</i>	Enter name of agency with current permitting authority in area planned for annexation.																														
Are any areas targeted for development or major redevelopment in the next five years?	Select																														
<i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i>	Enter description of planned area of development.																														
How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?	<table border="1"> <thead> <tr> <th></th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> </tr> </thead> <tbody> <tr> <td>Single Family</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> </tr> <tr> <td>Multi-Family</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> </tr> <tr> <td>Other</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> </tr> <tr> <td><b>Total</b></td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> <td>Enter #</td> </tr> </tbody> </table>		2019	2020	2021	2022	2023	Single Family	Enter #	Enter #	Enter #	Enter #	Enter #	Multi-Family	Enter #	Enter #	Enter #	Enter #	Enter #	Other	Enter #	Enter #	Enter #	Enter #	Enter #	<b>Total</b>	Enter #	Enter #	Enter #	Enter #	Enter #
	2019	2020	2021	2022	2023																										
Single Family	Enter #	Enter #	Enter #	Enter #	Enter #																										
Multi-Family	Enter #	Enter #	Enter #	Enter #	Enter #																										
Other	Enter #	Enter #	Enter #	Enter #	Enter #																										
<b>Total</b>	Enter #	Enter #	Enter #	Enter #	Enter #																										
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	<ul style="list-style-type: none"> <li>Special Flood Hazard Areas: Enter #</li> <li>Landslide: Enter #</li> <li>High Liquefaction Areas: Enter #</li> <li>Wildfire Risk Areas: Enter #</li> </ul>																														
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.	Enter data or description to explain level of buildout																														

## 1.4 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 hazard mitigation plan 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, initiate or integrate 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. The “Analysis of Mitigation Actions” table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 1-3.
- Development and permitting capabilities are presented in Table 1-4.
- An assessment of fiscal capabilities is presented in Table 1-5.
- An assessment of administrative and technical capabilities is presented in Table 1-6.
- An assessment of education and outreach capabilities is presented in Table 1-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 1-8.
- Classifications under various community mitigation programs are presented in Table 1-9.
- The community’s adaptive capacity for the impacts of climate change is presented in Table 1-10.

**Table 1-3. Planning and Regulatory Capability**

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Codes, Ordinances, &amp; Requirements</b>				
<b>Building Code</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Zoning Code</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Subdivisions</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Stormwater Management</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Post-Disaster Recovery</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Real Estate Disclosure</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Growth Management</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Site Plan Review</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Environmental Protection</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Flood Damage Prevention</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Emergency Management</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Climate Change</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Other: Comprehensive Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include code or ordinance number and adoption date if applicable				
<b>Planning Documents</b>				
<b>Comprehensive Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				
<b>Capital Improvement Plan</b>	Select	Select	Select	Select
<i>How often is the plan updated?</i> Annually				
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				
<b>Disaster Debris Management Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				
<b>Floodplain or Watershed Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				
<b>Stormwater Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				
<b>Urban Water Management Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				
<b>Habitat Conservation Plan</b>	Select	Select	Select	Select
<i>Comment:</i> Enter comment, if any; include plan adoption date if applicable				

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<b>Economic Development Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Shoreline Management Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Community Wildfire Protection Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Forest Management Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Climate Action Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Comprehensive Emergency Management Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Threat &amp; Hazard Identification &amp; Risk Assessment (THIRA)</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Post-Disaster Recovery Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Continuity of Operations Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Public Health Plan</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select
<b>Other</b> <i>Comment:</i> Enter comment, if any; include plan adoption date if applicable	Select	Select	Select	Select

**Table 1-4. Development and Permitting Capability**

Criterion	Response
Does your jurisdiction issue development permits?	Select
<i>If yes, which department?</i> Enter response	
<i>If no, who does?</i> Enter response	
Does your jurisdiction have the ability to track permits by hazard area?	Select
Does your jurisdiction have a buildable lands inventory?	Select

**Table 1-5. Fiscal Capability**

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Select
Capital Improvements Project Funding	Select
Authority to Levy Taxes for Specific Purposes	Select
User Fees for Water, Sewer, Gas or Electric Service	Select
<i>If yes, specify:</i> Enter response	
Incur Debt through General Obligation Bonds	Select
Incur Debt through Special Tax Bonds	Select
Incur Debt through Private Activity Bonds	Select



Withhold Public Expenditures in Hazard-Prone Areas	Select
State-Sponsored Grant Programs	Select
Development Impact Fees for Homebuyers or Developers	Select
Other	Select
<i>If yes, specify:</i> Enter response	

**Table 1-6. Administrative and Technical Capability**

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices	Select
<i>If Yes, Department /Position:</i> Enter response	
Engineers or professionals trained in building or infrastructure construction practices	Select
<i>If Yes, Department /Position:</i> Enter response	
Planners or engineers with an understanding of natural hazards	Select
<i>If Yes, Department /Position:</i> Enter response	
Staff with training in benefit/cost analysis	Select
<i>If Yes, Department /Position:</i> Enter response	
Surveyors	Select
<i>If Yes, Department /Position:</i> Enter response	
Personnel skilled or trained in GIS applications	Select
<i>If Yes, Department /Position:</i> Enter response	
Scientist familiar with natural hazards in local area	Select
<i>If Yes, Department /Position:</i> Enter response	
Emergency manager	Select
<i>If Yes, Department /Position:</i> Enter response	
Grant writers	Select
<i>If Yes, Department /Position:</i> Enter response	
Other	Select
<i>If Yes, Department /Position:</i> Enter response	

**Table 1-7. Education and Outreach Capability**

Criterion	Response
Do you have a public information officer or communications office?	Select
Do you have personnel skilled or trained in website development?	Select
Do you have hazard mitigation information available on your website?	Select
<i>If yes, briefly describe:</i> Enter response	
Do you use social media for hazard mitigation education and outreach?	Select
<i>If yes, briefly describe:</i> Enter response	
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Select
<i>If yes, briefly describe:</i> Enter response	
Do you have any other programs in place that could be used to communicate hazard-related information?	Select
<i>If yes, briefly describe:</i> Enter response	

Criterion	Response
Do you have any established warning systems for hazard events? <i>If yes, briefly describe:</i> <a href="#">Enter response</a>	Select

Table 1-8. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	<a href="#">Enter response</a>
Who is your floodplain administrator? (department/position)	<a href="#">Enter response</a>
Are any certified floodplain managers on staff in your jurisdiction?	Select
What is the date that your flood damage prevention ordinance was last amended?	<a href="#">Enter date</a>
Does your floodplain management program exceed minimum requirements? <i>If yes, in what ways?</i> <a href="#">Enter response</a>	Select
When was the most recent Community Assistance Visit or Community Assistance Contact?	<a href="#">Enter date</a>
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <i>If yes, state what they are.</i> <a href="#">Enter response</a>	Select
Are any RiskMAP projects currently underway in your jurisdiction? <i>If yes, state what they are.</i> <a href="#">Enter response</a>	Select
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <i>If no, state why.</i> <a href="#">Enter response</a>	Select
Does your jurisdiction have a Substantial Damage (SD) Determination Plan? <i>How many SD determinations were declared in the past five years?</i> <a href="#">Enter response</a>	Select
Does your floodplain management staff need any assistance or training to support its floodplain management program? <i>If yes, what type of assistance/training is needed?</i> <a href="#">Enter response</a>	Select
Does your jurisdiction participate in the Community Rating System (CRS)? <i>If yes, is your jurisdiction interested in improving its CRS Classification?</i> <a href="#">Select</a> <i>If no, is your jurisdiction interested in joining the CRS program?</i> <a href="#">Select</a>	Select
How many flood insurance policies are in force in your jurisdiction? <sup>a</sup> <i>What is the insurance in force?</i> <a href="#">Enter value in \$</a> <i>What is the premium in force?</i> <a href="#">Enter value in \$</a>	<a href="#">Enter number</a>
How many total loss claims have been filed in your jurisdiction? <sup>a</sup> <i>How many claims are still open or were closed without payment?</i> <a href="#">Enter number</a> <i>What were the total payments for losses?</i> <a href="#">Enter value in \$</a>	<a href="#">Enter number</a>

a. According to FEMA statistics as of [Enter date](#)

Table 1-9. Community Classifications

	Participating?	ID Number	Classification	Date Classified
FIPS Code	Select	<a href="#">Enter response</a>	<a href="#">Enter response</a>	<a href="#">Enter date</a>
UEI #	Select	<a href="#">Enter response</a>	<a href="#">Enter response</a>	<a href="#">Enter date</a>
Community Rating System	Select	<a href="#">Enter response</a>	<a href="#">Enter response</a>	<a href="#">Enter date</a>
Building Code Effectiveness Grading Schedule	Select	<a href="#">Enter response</a>	<a href="#">Enter response</a>	<a href="#">Enter date</a>
Public Protection	Select	<a href="#">Enter response</a>	<a href="#">Enter response</a>	<a href="#">Enter date</a>
StormReady	Select	<a href="#">Enter response</a>	<a href="#">Enter response</a>	<a href="#">Enter date</a>

	Participating?	ID Number	Classification	Date Classified
Firewise	Select	Enter response	Enter response	Enter date

Table 1-10. Adaptive Capacity for Climate Change

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

Criterion	Jurisdiction Rating <sup>a</sup>
<b>Local ecosystems' capacity to adapt to climate impacts</b> <i>Comment:</i> <a href="#">Enter comment</a>	Select

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.

## 1.4.1 Expansion of Core Capabilities

### Planning, Regulatory, Development and Permitting Capabilities

[Enter comment](#)

### Administrative and Technical Capabilities

[Enter comment](#)

### Fiscal Capabilities

[Enter comment](#)

### Public Education and Awareness Capabilities

[Enter comment](#)

### NFIP Capabilities

[Enter comment](#)

## 1.5 INTEGRATION REVIEW

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and 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 hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

### 1.5.1 Existing Integration

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

- [Enter name](#)—[Enter description](#)
- [Enter name](#)—[Enter description](#)

- Enter name—Enter description
- Enter name—Enter description
- Enter name—Enter description

### 1.5.2 Opportunities for Future Integration

The capability assessment presented 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:

- Enter name—Enter description
- Enter name—Enter description
- Enter name—Enter description
- Enter name—Enter description
- Enter name—Enter description

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan presented in this annex.

## 1.6 RISK ASSESSMENT

### 1.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 1-11 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 hazard mitigation plan.

Table 1-11. Past Natural Hazard Events

Type of Event	Federal Disaster #	State Disaster Declaration	Incident Period Date	Damage Assessment
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage

Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage
Enter hazard type.	Enter #	Select	Enter date	Describe damage

## 1.6.2 Hazard Risk Ranking

Table 1-12 presents a local ranking of all hazards of concern for which this hazard mitigation plan 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. Mitigation actions target hazards with high and medium rankings.

**Table 1-12. Hazard Risk Ranking**

Rank	Hazard	Risk Ranking Score	Risk Category
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select
Enter #	Enter hazard type.	Enter #	Select

## 1.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan 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.

### ***Repetitive Loss Properties***

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: [Enter #](#)
- Number of FEMA-identified Severe-Repetitive-Loss Properties: [Enter #](#)
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: [Enter #](#)

### ***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:

- [Enter description](#)
- [Enter description](#)

- Enter description
- Enter description

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

## 1.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 1-13 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

**Table 1-13. Status of Previous Plan Actions**

Action Item from Previous Plan	Status of Action	New Action #
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
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Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		
Enter action #—Enter action description	Select	Number.
<i>Comment:</i> Enter comment		

Report Title

Enter Jurisdiction Name

---

Enter action #—Enter action description

Select

Number.

**Comment:** Enter comment

---





**1.8 HAZARD MITIGATION ACTION PLAN (THIS IS A PLACEHOLDER SECTION. YOUR INPUTS ON THE MITIGATION ACTION WORKSHEETS WILL BE ADDED HERE FOR YOU ONCE THE WORKSHEETS ARE COMPLETE.)**

**Move directly to Section 1.9.**

Table 1-14 summarizes the actions that make up the hazard mitigation action plan for this jurisdiction. Table 1-15 identifies the priority for each action. Table 1-16 summarizes the mitigation actions by hazard of concern and mitigation type. Appendix 1 contains the complete mitigation action worksheets.

**Table 1-14. Hazard Mitigation Action Plan Matrix**

Action #	Action Description	Hazard(s) Addressed	Benefits New or Existing Assets	Goals Met	Lead Implementer	Benefits Socially	Cost	Potential Funding Sources	Timeline

**SKIP THIS TABLE  
(will be added for you)**

Acronyms used here are defined at the beginning of this volume.

**Table 1-15. Mitigation Action Priority**

Action	Life Safety	Property Protection	Cost-Effective	Technically Feasible	Legal Authority	Funding Available	Environmental	Climate Change	Nature-based Solution	Socially Vulnerable Community	Administrative Capacity	Multi-Hazard	High-impact Hazards	Timeline	Stakeholder Support	Other Local Objectives	Support Policies	Total Score	Priority
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**SKIP THIS TABLE**  
**(will be added for you)**

Table 1-16. Mitigation Action Classification

Action	Mitigation Classification				High-Ranked Hazard			Medium-Ranked Hazard			Low-Ranked Hazard	
	Local Plans & Regulations	Structure & Infrastructure Projects	Natural Systems Protection	Education & Awareness Programs	Wildfire	Flood	Severe Weather	Earthquake	Landslide	Avalanche	Drought	Dam or Levee Failure

SKIP THIS TABLE  
 (will be added for you)



## 1.9 PUBLIC OUTREACH

Table 1-17 lists public hazard mitigation outreach activities for this jurisdiction.

**Table 1-17.** Local Public Hazard Mitigation Outreach

Local Outreach Activity	Date	Number of People Involved
Enter activity description	Enter date	Enter #
Enter activity description	Enter date	Enter #
Enter activity description	Enter date	Enter #
Enter activity description	Enter date	Enter #

## 1.10 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **Enter Jurisdiction Name Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **Enter Jurisdiction Name Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.
- **Enter document name**—Describe use of document
- **Enter document name**—Describe use of document
- **Enter document name**—Describe use of document
- **Enter document name**—Describe use of document

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.
- **Enter document name**—Describe use of document
- **Enter document name**—Describe use of document

## 1.11 FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

Enter text

## 1.12 ADDITIONAL COMMENTS

Enter text

# **INSTRUCTIONS FOR COMPLETING SPECIAL-PURPOSE DISTRICT ANNEX TEMPLATE**

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## PHASE 1 INSTRUCTIONS

### CHAPTER TITLE

In the chapter title at the top of Page 1, type in the complete official name of your district (e.g. West County Fire Protection District #1, Johnsonville Flood Protection District). Do not change the chapter number. Revise only the jurisdiction name. If your jurisdiction's name has already been entered, verify that wording and spelling are correct; revise as needed.

### LOCAL HAZARD MITIGATION PLANNING TEAM

#### Points of Contact

Provide the name, title, mailing address, telephone number, and e-mail address for the primary point of contact for your jurisdiction. This should be the person responsible for monitoring, evaluating, and updating the annex for your jurisdiction. This person should also be the principle liaison between your jurisdiction and the Steering Committee overseeing development of this plan.

In addition, designate an alternate point of contact. This would be a person to contact should the primary point of contact be unavailable or no longer employed by the jurisdiction.

*Note: Both of these contacts should match the contacts that were designated in your jurisdiction's letter of intent to participate in this planning process. If you have changed the primary or secondary contact, let the planning team know by inserting a comment into the document.*

#### Participating Planning Team

Populate Table 1-1 with the names of staff from your jurisdiction who participated in preparing this annex or otherwise contributed to the planning process for this hazard mitigation plan.

### JURISDICTION PROFILE

#### Overview

Provide a brief summary description of the following:

- The purpose of the jurisdiction
- The date of inception
- The type of organization
- The number of employees
- Funding sources
- The type of governing body, and who has adoptive authority.

This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:



**EXAMPLE:** *The Johnsonville Community Services District is a special district created in 1952 to provide water and sewer service. The District currently employs a staff of 21. Funding comes primarily through rates and revenue bonds. A five-member elected Board of Directors governs the District. The Board assumes responsibility for the adoption of this plan; the General Manager will oversee its implementation.*

## Service Area

Provide a brief description of the following:

- Who the District’s customers are and an approximation of how many are currently served
- The area served, in square miles
- The geographic extent of the service area

This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

**EXAMPLE:** *The Johnsonville Community Services District serves unincorporated areas of Jones County east of the City of Smithburg, including the communities of Johnsonville, Creeks Corner, Jones Hill, Fields Landing, King Salmon, and Freshwater. The current total service area is 3.3 square miles. As of April 30, 2020, the District serves 7,305 water connections and 6,108 sewer connections.*

## Assets

List District-owned assets in the categories shown on the table (and described in the sections below). Include an approximate value for each asset and a subtotal value for identified assets in each category.

If District GIS data files are available, please send with your completed Phase 1. The files should include GIS data for the critical facilities and infrastructure that are identified in the assets table, including the name of the facility and what it is (e.g., “1.5MG water tank”).

### Property

Provide an approximate value for any land owned by the District.

### Equipment

List equipment owned by the District that is used in times of emergency or that, if incapacitated, could severely impact the service area (vehicles, generators, pumps, etc.). Provide an approximate replacement value for each item. Equipment of similar type may be listed as a single category (e.g., “3 diesel-powered generators”). For water and sewer districts, include mileage of pipeline under this category.

### Critical Facilities

List District-owned facilities that are vital to maintain services to the service area. Include the address of each facility. Provide an approximate replacement value for each line. Critical facilities are generally defined as facilities owned by the District that are critical to District operations and to public health or safety and that are especially important following hazard events, including but not limited to the following:

- Structures or facilities that produce, use, or store hazardous materials (highly volatile, flammable, explosive, toxic and/or water-reactive materials)
- Hospitals, nursing homes, and housing facilities likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a natural hazard event
- Mass gathering facilities that may be used as evacuation shelters (such as schools or community centers)
- Transportation infrastructure such as roads, bridges and airports that provide sources for evacuation before, during and after natural hazard events
- Police stations, fire stations, government facilities, vehicle equipment and storage facilities, and emergency operation centers that are needed for response activities before, during and after a natural hazard event
- Public utility facilities such as drinking water, stormwater, and wastewater systems that are vital to providing normal services to damaged areas before, during and after natural hazard events.

The table below shows an example of assets to be listed in this section.

**Sample Completed Table – Special District Assets**

Asset	Value
<b>Property</b>	
11.5 Acres	\$5,750,000
<b>Equipment</b>	
Total length of pipe 40 miles ( \$1.32 million per mile X 40 miles)	\$52,800,000
4 Emergency Generators	\$250,000
<b>Total:</b>	<b>\$53,050,000</b>
<b>Critical Facilities</b>	
Administrative Buildings – 357 S. Jones Street	\$2,750,000
Philips Pump Station – 111 Fifth Avenue N.	\$377,000
<b>Total:</b>	<b>\$3,127,000</b>

**NOTE:** Placeholders in the table of assets request **ADDRESSES** for critical facilities. These addresses will not be included in the final published annex, but are needed in order to perform risk mapping and risk analysis for the hazard mitigation plan. Include the addresses in the table if convenient. If not, then provide a separate document listing all critical facilities and addresses for use in development of the hazard mitigation plan.

## CURRENT TRENDS

Provide a brief description of previous growth trends in the service area and anticipated future increase or decrease in services (if applicable). This should be information that is specific to your jurisdiction and will not be provided in the overall, planning area-wide mitigation plan document. Provide a statement similar to the example below:

**EXAMPLE:** *The Johnsonville Community Services District originally was formed to serve only the Johnsonville area. The District’s service area expanded throughout the years to include the full area served today. Total customers have increased by 3 percent since 2010. Population in the service area is not projected to change significantly over the next 10 years, and the District has no plans to expand its service area.*

## STATUS OF PREVIOUS PLAN ACTIONS

**Note that this section applies only to jurisdictions that are conducting updates to previously approved hazard mitigation plans. If your jurisdiction has not previously participated in an approved plan, enter an “X” in the box at the beginning of this section and do not complete the section. We will remove this section from your final annex.**

**Also note that this section will be further back in the final annex than the rest of the Phase 1 content. Some Phase 2 sections will be included before it.**

All action items identified in prior mitigation plans must be reconciled in this update. Action items must all be marked as **ONE** of the options below; select the appropriate status from the dropdown list and provide information as follows:

- **Completed**—If an action has been completed since the prior plan was prepared, select “Completed” and **provide a date of completion in the comment section.**
- **Removed**—If action items are to be removed because they are no longer feasible, a reason must be given. Lack of funding does not mean that it is no longer feasible, unless the sole source of funding for an action is no longer available. **Place a comment in the comment section explaining why the action is no longer feasible or barriers that prevented the action from being implemented (e.g., “Action no longer considered feasible due to lack of political support.”).** If the wording and/or intent of a previously identified action is unclear, this can be a reason for removal. A change in community priorities may also be a reason for removal and should be discussed in the comments.
- **Carried Over to Plan Update**—If an action is in progress, is ongoing, or has not been initiated and you would like to carry it over to the plan update, select “Carried Over to Updated Plan.” Selecting this option indicates that the action will be included in the mitigation action plan for this update. If you are carrying over an action to the update, **include a comment describing any action that has been taken or why the action was not taken** (specifically, any barriers or obstacles that prevented the action from moving forward or slowed progress). Leave the last column, “New Action #,” blank at this point. This will be filled in after completing the updated action plan in Phase 3.

Ensure that you have provided **a status and a comment for each action.**

### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, all action items from your jurisdiction’s previous hazard mitigation plan that are marked as “Carried Over to Plan Update” will need to be included in the action plan.

## PUBLIC OUTREACH

**Note that this section is part of the Phase 3 annex, but documentation can begin in Phase 1.**

FEMA requirements for public outreach need to be met by each planning partner. These may include public meetings, a StoryMap website, surveys, etc.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.)

**THIS COMPLETES PHASE 1**

## PHASE 2 INSTRUCTIONS

### CAPABILITY ASSESSMENT

***Note that it is unlikely that one person will be able to complete all sections of the capability assessment alone. The primary preparer will likely need to reach out to other departments within the local government for information. It may be beneficial to provide these individuals with background information about this planning process, as input from them will be needed again during Phase 3 of the annex development.***

#### Planning and Regulatory Capability

List any federal, state, local or district ordinances, plans, or policies that apply to your jurisdiction and relate to hazard mitigation. Provide the date of last update and any comments as appropriate. The table below shows an example of items to be listed in this section.

**Sample Completed Table – Planning and Regulatory Capability**

Plan, Study or Program	Date of Most Recent Update	Comment
District Design Standards	2010	
Capital Improvement Program	Updated annually	covers 5 year timeframe
Emergency Operations Plan	2000	
Facility Maintenance Manual	1990	
State Building Code	2016	
Division of State Architects		Review of all building and site design features is required prior to construction

#### Fiscal Capability

Complete the table titled “Fiscal Capability” by indicating whether each of the listed financial resources is accessible to your jurisdiction. Select “Yes” if the resource is fully accessible to your jurisdiction. Select “No” if there are limitations or prerequisites that may hinder your use of this resource.

#### Administrative and Technical Capability

Complete the table titled “Administrative and Technical Capability” by indicating whether your jurisdiction has access to each of the listed personnel resources. Select “Yes” or “No” in the column labeled “Available?”. If yes, then enter the department and position title. If you have contract support with these capabilities, you can still answer “Yes.” Indicate in the department row that this resource is provided through contract.

#### Education and Outreach Capability

Complete the table titled “Education and Outreach.”

#### National Flood Insurance Program Participation

Consultants will complete the section with information from local municipalities when risk assessment is done.

### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, review all the above capability assessment tables and consider including actions to provide a capability that your jurisdiction does not currently have, update a capability that your jurisdiction does have, or implement an action that is recommended in an existing plan or program.

## Community Classifications

Complete the table titled “Community Classifications” to indicate your jurisdiction’s participation in various national programs related to natural hazard mitigation. For each program select “Yes” or “No” in the second column to indicate whether your jurisdiction participates. If yes, then enter your jurisdiction’s identification number in the program in the third column, the classification that your jurisdiction has currently earned under the program in the fourth column and the date on which that classification was issued in the fifth column. Enter “N/A” in the third, fourth, and fifth columns if your jurisdiction is not participating. If you do not know your current identification number or classification, information is available at the following websites:

- **UEI #**— [SAM.gov](https://sam.gov) | [Duns - Sam UEI](https://duns.sam.gov)
- **Public Protection Classification**— <https://www.isomitigation.com/ppc/>
- **Storm Ready**— <https://www.weather.gov/stormready/communities>
- **Firewise**— <http://www.firewise.org/usa-recognition-program/map-of-active-participants.aspx>

## Adaptive Capacity for Climate Change

Consider climate change impact concerns such as the following:

- Reduced snowpack
- Increased wildfires
- Inland flooding
- Threats to sensitive species
- Loss in agricultural productivity
- Public health and safety.

With those impacts in mind, complete the table titled “Adaptive Capacity for Climate Change” by indicating your jurisdiction’s capacity for each listed criterion as follows:

- **High**—The capacity exists and is in use.
- **Medium**—The capacity may exist, but is not used or could use some improvement.
- **Low**—The capacity does not exist or could use substantial improvement.
- **Unsure**—Not enough information is known to assign a rating.

This is a subjective assessment, but providing a few words of explanation is useful. It is highly recommended that you complete this table with an internal planning team after reviewing the results of the other capability assessment tables.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, review all the adaptive capacity criteria and consider including actions to improve the rating for those rated medium or low, to make use of the capacity for those rated high, or to acquire additional information for those rated unsure.

## INTEGRATION REVIEW

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. FEMA recommends integration as follows:

- Integrate hazard mitigation plan goals with community objectives (e.g. incorporate the goals for risk reduction and safety into the policies of other plans).
- Use the risk assessment to inform plans and policies (e.g. incorporate risk assessment findings into emergency operations plans).
- Implement mitigation actions through existing mechanisms (e.g. include mitigation projects in the capital improvement plan).
- Think about mitigation before and after a disaster (e.g. build recovery planning on existing mitigation plans and goals).

After reviewing the plans, programs and ordinances identified in the capability assessment tables, identify all plans and programs that have already been integrated with the hazard mitigation plan, and those that offer opportunities for future integration.

## Existing Integration

In the bullet list, provide a brief description of integrated plans or ordinances and how each is integrated. Consider listing items marked as Completed in the “Status of Previous Plan Actions” table if they were indicated as being ongoing actions. Examples are as follows:

- **Capital Improvement Plan**—The capital improvement plan includes projects that can help mitigate potential hazards. The District will act to ensure consistency between the hazard mitigation plan and the current and future capital improvement plans. The hazard mitigation plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
- **Emergency Operations Plan**—The results of the risk assessment were used in the development of the emergency operations plan.

- **Facilities Plan**—The results of the risk assessment and mapped hazard areas are used in facility planning for the District. Potential sites are reviewed for hazard risks, and appropriate mitigation measures are considered in building and site design.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, any plans that fall into the “Existing Integration” category should be reviewed and elements from them should be included in the action plan as appropriate.

## Opportunities for Future Integration

List any plans or programs that offer the potential for future integration and describe the process by which integration will occur. Examples follow:

- **Capital Improvement Projects**—Capital improvement project proposals may take into consideration hazard mitigation potential as a means of evaluating project prioritization.
- **Post-Disaster Recovery Plan**—The District does not have a recovery plan and intends to develop one as a mitigation planning action during the next five years. The plan will build on the mitigation goals and objectives identified in the mitigation plan.

Consider any programs you may have in place in your jurisdiction that include routine consideration and management of hazard risk. Examples of such programs may include: tree pruning programs, right-of-way mowing programs, erosion control or stream maintenance programs, etc. Add any such programs to the integration discussion and provide a brief description of how these program manage (or could be adapted to manage) risk from hazards.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, an action to integrate any identified “Opportunities for Future Integration” should be considered for inclusion in the action plan.

## INFORMATION SOURCES USED FOR THIS ANNEX

***Note that this section will ultimately describe all information sources used to develop this annex, but that only the sources used for Phases 1 and 2 will be listed at this point. Additional sources will be added with the preparation of the Phase 3 annex.***

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

**THIS COMPLETES PHASE 2**



## RISK ASSESSMENT

### Jurisdiction-Specific Natural Hazard Event History

In the table titled “Past Natural Hazard Events,” list in chronological order (most recent first) any natural hazard event that has caused damage to your jurisdiction. Include the date of the event and the estimated dollar amount of damage it caused. If a dollar amount is unknown, write a brief description of the impact and damage. You are welcome to include any events, but special attention should be made to include major storms and federally declared disasters. Refer to the Toolkit document “Presidential Disaster Declarations – Chelan County.xlsx” for a list of federally declared disasters.

We recommend including most large-scale disasters, unless you know that there were no impacts on your jurisdiction. Specifically, we recommend that you include these events if you have damage estimate information or can provide a brief description of impacts that occurred within your community. In addition to these events, refer to the “NOAA Storm Events Database - Chelan County.csv” included in the toolkit. We recommend conducting a search for the name of your jurisdiction in order to identify events with known impacts. Other potential sources of damage information include the following

- Preliminary damage estimates your jurisdiction filed with the county or state
- Insurance claims data
- Newspaper archives
- Emergency management documents (general plan safety element, emergency response plan, etc.)
- Resident input.

If you do not have estimates for costs of damage caused, enter “Not Available” in the “Damage Assessment” column or list a brief description of the damage rather than a dollar value (e.g., Main Street closed as a result of flooding, downed trees and residential damage). Note that tracking such damage is a valid and useful mitigation action if your jurisdiction does not currently track such information.

### Hazard Risk Ranking

Risk ranking identifies which hazards pose the greatest risk to the community, based on how likely it is for each hazard to occur (this is called the community’s exposure) and how great an impact each hazard will have if it does occur (this is called the community’s vulnerability). Every jurisdiction has differing degrees of risk exposure and vulnerability and therefore needs to rank risk for its own area. The risk ranking for each jurisdiction has been calculated in the “Loss Matrix” spreadsheet included in the annex preparation toolkit. These rankings are based on scores for each hazard calculated from the hazard’s probability of occurrence and its potential impact on people, property and the economy.

The risk ranking methodology used for cities is not usable for special-purpose districts because the risk-related mapping generally does not align with the boundaries of districts. To rank risk for your District, use the following procedure:

- Find the risk ranking scores in the Risk Assess Results spreadsheet (on the “Risk Ranking Summary” tab) for the planning area overall and for any cities whose area overlaps that of your District.

- For each hazard, generate a risk ranking score for your District by calculating the average of the scores for those other jurisdictions.
- Rank the hazards based on those average scores:
  - Assign the rank of 1 to the hazard with the highest risk ranking score, the rank of 2 to the hazard with the second highest ranking score; and so on.
  - Assign the same rank to any two hazards with equal risk ranking scores
- If the resulting ranking differs from what you know based on substantiated data and documentation, alter the scores and ranking as needed based on this knowledge.
- Assign each hazard to the risk category of “High,” “Medium,” or “Low” based on the risk rating score:
  - Low for scores of 0 to 15
  - Medium for scores of 16 to 30
  - High for scores greater than 30

Enter the results of this analysis in the “Hazard Risk Ranking” table in the template; enter the hazards in order of ranking, with 1 at the top of the table.

#### **HAZARD MITIGATION ACTION PLAN INPUT**

When preparing the hazard mitigation action plan in Phase 3, you will need to have at least one mitigation action for each hazard ranked as “high” or “medium.”

### **Jurisdiction-Specific Vulnerabilities**

Review the results of the risk assessment included in the toolkit, your jurisdiction’s natural events history, and any relevant public comments/input, then develop a few sentences that discuss specific hazard vulnerabilities. You do not need to develop a sentence for every hazard, but identify a few issues you would like to highlight. Also list any known hazard vulnerabilities in your jurisdiction that may not be apparent from the risk assessment and other information provided.

Spending some time thinking about the results of the risk assessment and other noted vulnerabilities will be a big help in the development of your hazard mitigation action plan. The following are examples of vulnerabilities you could identify through this exercise:

- About 45 percent of the population lives in the 0.2 percent annual chance flood hazard area, where flood insurance is generally not required.
- A magnitude 7.5 earthquake on the Smithburg Fault is estimated to produce nearly 1 million tons of structure debris.
- Over the past 10 years, the jurisdiction has experienced more than \$6 million in damage from severe storm events.
- More than 50 buildings are located in areas that would be permanently inundated with 12 inches of sea level rise.

- The results of the public survey indicated that 40 percent of Smithburg residents would not be able to be self-sufficient for 5 days following a major event.
- An urban drainage issue at a specific location results in localized flooding every time it rains.
- One area of the community frequently loses power due to a lack of tree maintenance.
- A critical facility, such as a police station, is not equipped with a generator.
- A neighborhood has the potential to have ingress and egress cut off as the result of a flood or earthquake (e.g. a bridge is the only access).
- Substantial number of buildings in one area of the community are unreinforced masonry or soft-story construction.
- An area along the river is eroding and threatening public and/or private property.
- A large visitor population that may not be aware of tsunami risk.

#### HAZARD MITIGATION ACTION PLAN INPUT

When preparing the hazard mitigation action plan in Phase 3, consider including actions to address the jurisdiction-specific vulnerabilities listed in this section.

## HAZARD MITIGATION ACTION PLAN

Use the “Mitigation Action Worksheet\_Chelan County.docx” in the Toolkit for each mitigation action. You will need one sheet per action, so please download multiple copies.

## EXPANSION OF CORE CAPABILITIES

This section is located earlier in your annex and highlighted green. Please list mitigation actions you have included in your mitigation action worksheets to address the expansion opportunities for each core capability. If your jurisdiction does not have any gaps or need to expand a core capability, please indicate that the capability assessment did not identify a need to expand on the capability.

## PUBLIC OUTREACH

***Note that documentation began in Phase 1, but additional outreach efforts can be listed as applicable.***

FEMA requirements for public outreach need to be met by each planning partner. These may include public meetings, a StoryMap website, surveys, etc.

This table should record local public outreach efforts made by your jurisdiction to inform the community of the plan update process. Examples may include local surveys on hazard awareness/preparedness, social media blasts, press releases, and outreach to local groups (CERT, senior citizen organizations, etc.)

## INFORMATION SOURCES USED FOR THIS ANNEX

This section should describe what resources you used to complete the annex and how you used them. Several items are started for you, but be sure to update and enhance any descriptions. Providing this information is a requirement to pass the state and FEMA review process.

## FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

In this section, identify any future studies, analyses, reports, or surveys your jurisdiction needs to better understand its vulnerability to identified or currently unidentified risks. These could be needs based on federal or state agency mandates. **This section is optional.**

## ADDITIONAL COMMENTS

Use this section to add any additional information pertinent to hazard mitigation and your jurisdiction not covered in this template. **This section is optional.**

**THIS COMPLETES PHASE 3**