

KITTITAS COUNTY

HAZARD MITIGATION PLAN

City of Cle Elum
Annex



Kittitas County
Public Works Department





TABLE OF CONTENTS

1. Introduction	1
2. Local Planning Team	1
3. Jurisdiction Profile	1
3.1. Population	1
3.1.1. <i>Underserved Population</i>	2
3.2. Brief History	3
3.3. Governing Body Format	4
4. Development Trends	4
4.1. Changes in Priority	5
5. Capability Assessment	5
5.1. Planning and Regulatory Capabilities	6
5.2. Administrative and Technical Capabilities	7
5.3. Financial Resources	8
5.4. Education and Outreach Capabilities	9
5.5. Needs to Expand/Improve Capabilities	9
6. Hazard Mitigation Plan Integration	9
6.1. Existing Plan Integration	10
6.2. Potential Future Integration	10
7. Significant Hazard Past Events	11
8. National Flood Insurance Program	11
8.1. Floodplain Manager	11
8.2. Participation Activities	12
8.2.1. <i>Substantial Damage</i>	12
8.2.2. <i>Substantial Improvement</i>	12
8.3. Repetitive Loss and Severe Repetitive Loss Property	12
9. Hazard Vulnerability and Impact Assessment	13
10. Hazard Risk Ranking	17
11. Mitigation Actions	19
Appendix A. Hazard Maps	35
Appendix B. Plan Adoption	45



1. INTRODUCTION

This Annex details the hazard mitigation elements specific to the City of Cle Elum, a participating jurisdiction to the 2025 Kittitas County Hazard Mitigation Plan update. This Annex is not intended to be a standalone document but supplements the information contained in **Volume 1 (Countywide Planning Elements)**. Therefore, all sections of **Volume 1** including the planning process, hazard identification and risk assessment, mitigation strategy (includes mitigation goals and objectives), and plan maintenance apply to and were met by the City of Cle Elum. This Annex provides additional information specific to the City, with a focus on providing additional details on the hazard risk assessment and mitigation strategy (i.e., mitigation actions) for this community.

2. LOCAL PLANNING TEAM

The City of Cle Elum Local Planning Team was comprised of the members listed on **Table 1**.

Table 1. City of Cle Elum Local Planning Team Members

Name	Title	Department
Ed Mills	Fire Chief	Cle Elum Fire Department
Colleda Monick	Planning Consultant	Cle Elum Planning Department
Ben Annen, PE	Engineering Consultant	Cle Elum Engineering
Aaron Barr	Public Works Director	Cle Elum Public Works Department
William LaRue	Manager	Veolia Water

3. JURISDICTION PROFILE

The City of Cle Elum is located in upper Kittitas County at Milepost 83 on Interstate 90 east of Snoqualmie Pass with a total land area of 3.22 square miles. It is bordered by the Cle Elum Ridge to the north and South Cle Elum to the south, including Peoh Point, and it is a neighboring town to the City of Roslyn. The City of Cle Elum sits on the east slopes of the Central Cascade mountain range, at an altitude of 1,913 feet, in the center of Washington State. This area is historically significant for its rich natural and cultural resources, fish, and wildlife.

3.1. Population

The City of Cle Elum had a population of 2,116 as of July 1, 2022.¹ Between 2010 and 2020, the population increased by approximately 15.2%; however, a population decrease of 1.9% occurred

¹ United States Census Bureau. (2022). City of Cle Elum (DP05: ACS Demographics and Housing Estimates, 2022: ACS 5-Year Estimates Data Profiles). Retrieved from <https://data.census.gov/table/ACSDP5Y2022.DP05?q=160XX00US5312945>.



between 2020 and 2022.^{2,3} **Table 2** shows the City of Cle Elum’s population distribution between 2010 and 2022.

Table 2. Population Estimates

Jurisdiction	2010	2020	2022	Population Change (2010 – 2022)
City of Cle Elum	1,872	2,157	2,116	13.0%

3.1.1. Underserved Population

FEMA defines underserved populations as groups that have limited or no access to resources or that are otherwise disenfranchised. These groups may include, but are not limited to, people who are socioeconomically disadvantaged, people with limited English proficiency, geographically isolated or educationally disenfranchised people, people of color as well as those of ethnic and national origin minorities, women and children, individuals with disabilities and others with access and functional needs, and seniors.⁴

The CDC’s SVI is considered an appropriate and authoritative dataset to identify areas where efforts can be prioritized to ensure equitable outcomes from mitigation planning and actions. Social vulnerability refers to a community’s capacity to prepare for and respond to the stress of natural, human-caused, and technological disasters. CDC’s SVI combines 16 census-derived social factors, within four (4) themes (i.e., socioeconomic status, household characteristics, racial and ethnic minority status, and housing type and transportation) that summarizes the extent to which an area is socially vulnerable to disasters. The overall SVI combines all variables to provide a comprehensive assessment, and the possible scores range from zero (0) (lowest vulnerability) to one (1) (highest vulnerability).⁵

The overall SVI score for Kittitas County is 0.3366 which indicates a low to medium level vulnerability. **Table 3** outlines the SVI information for each social factor for the City of Cle Elum.⁶

Note: ArcGIS mapping analysis was performed utilizing Census Tract data by overlaying Census Tracts with the City of Cle Elum planning area boundary. The information outlined in this section includes the best available data from the entire Census Tracts that intersect the jurisdiction.

Table 3. Social Vulnerability Index (2022)

Theme	Social Factors	Percent
Socioeconomic	People below 150% poverty estimate	25.7%

² United States Census Bureau. (2020). City of Cle Elum (P1: Total Population, 2020: DEC Demographic and Housing Characteristics). Retrieved from <https://data.census.gov/table/DECENNIALDHC2020.P1?t=Populations%20and%20People&g=160XX00US5312945&y=2020&d=DEC%20Demographic%20and%20Housing%20Characteristics>.

³ Washington State Office of Financial Management. (2010). 2010 Census 2-Page Demographic Profiles: City of Cle Elum. Retrieved from <https://ofm.wa.gov/washington-data-research/population-demographics/decennial-census/census-2010/2010-census-2-page-demographic-profiles>.

⁴ Federal Emergency Management Agency. (n.d.). Glossary: Underserved Population/Communities. Retrieved from <https://www.fema.gov/about/glossary>.

⁵ Centers for Disease Control and Prevention. (2024). CDC/ATSDR SVI 2022 Documentation. Retrieved from <https://www.atsdr.cdc.gov/placeandhealth/svi/documentation/pdf/SVI-2022-Documentation-H.pdf>.

⁶ Centers for Disease Control and Prevention. (2022). CDC/ATSDR Social Vulnerability Index (SVI). Retrieved from https://www.atsdr.cdc.gov/placeandhealth/svi/interactive_map.html.



Theme	Social Factors	Percent
Status	Unemployed <i>(Civilian 16 years old and older)</i>	2.0%
	Housing Cost Burden	15.3%
	No High School Diploma	10.2%
	No Health Insurance	5.8%
Household Characteristics	65 years old and older	18.9%
	17 years and younger	16.1%
	Civilian with a Disability	16.4%
	Single-Parent Household	2.1%
	English Language Proficiency	0.3%
Racial and Ethnic Minority Status	<ul style="list-style-type: none"> • Hispanic or Latino (of any race) • Black or African American • Asian • American Indian or Alaska Native • Native Hawaiian or Pacific Islander • Two or More Races • Other Races 	22.5%
Housing Type and Transportation	Multi-Unit Structures	3.3%
	Mobile Homes	0.6%
	Crowding	1.0%
	No Vehicle	0.8%
	Group Quarters	0.0%

3.2. Brief History

The founders of Cle Elum were Thomas L. Gamble (later known as Judge Gamble) and Walter J. Reed. Mr. Gamble assumed a quarter section of land in Section 26, Township 20 North, and Range 15 East, in April 1883 with the intent of farming the land. Mr. Reed took a claim adjoining Mr. Gamble’s on the west. On those two (2) preemptive claims the town was laid out. The date of these filings was three (3) years prior to the discovery of coal. Scattered discoveries of coal ledges had been made in 1883 and 1884, but in 1886 a definite discovery of a large ledge of good coal in paying quantities made it clear that an important stage had come in the history of the region and population in the region began to increase. Meanwhile, the Northern Pacific Railway was seeking a route over the Cascade Mountains. On October 11, 1886, the first Northern Pacific Railroad train pulled into the new Cle Elum station. Following the arrival of the railway, the small town began to rapidly grow.

In 1913, steps were taken to improve automobile access across the Cascade Mountains via Snoqualmie Pass when a \$1.5 Million levy was approved to improve and expand the State’s highways. The majority of the levy (\$590,743) went to construction of the Sunset Highway between Spokane and Seattle. This major cross state highway would pass directly through Cle Elum’s business district. Cle Elum benefited from the road’s construction because it was one of the first towns in route when traveling east across the pass. That same year, reflecting on the prosperity of the coal mines, the city’s second bank was chartered. By 1914, Cle Elum’s population had risen to 3,000 from about 100 at the turn of the century.



Cle Elum’s greatest disaster occurred on June 25, 1918, when a fire destroyed over 70 acres of the City (29 city blocks), with over \$500,000 dollars in damage. The cause was determined to be a discarded cigarette butt thrown into a pile of garbage behind a theater. 30 businesses and 205 houses were destroyed, leaving more than 1,800 people homeless. Following the incident, aid came in from across the State. Fortunately, no lives were lost in the incident. High insurance rates on Cle Elum’s many wooden structures inhibited many people from purchasing it. One of the few buildings in downtown Cle Elum to survive the fire was the Cle Elum State Bank Building, built in 1906 and still standing today. The rest of downtown was quickly rebuilt with brick and many of these buildings still stand.

3.3. Governing Body Format

The City of Cle Elum has a City Mayor/City Council form of government. Policy making and legislative authority is vested in an eight (8) member City Council consisting of a Mayor and seven (7) Council Members. The seven (7) Council Members are elected to four (4) year overlapping terms. The Mayor is directly elected to a four (4) year term. The City Council assumes responsibility for the adoption of this Plan, and the City Manager will oversee its implementation.

4. DEVELOPMENT TRENDS

The City’s Comprehensive Plan serves as a guide to address future growth and development projects in the City within the Urban Growth Area (UGA), and it embodies the community’s goals and policies, and aims to guide the City’s development over the next 20 years. Under the State of Washington’s Growth Management Act (GMA) and RCW.36.70A, cities must update their Comprehensive Plan every eight (8) years. The City of Cle Elum Comprehensive Plan was last adopted in November 2021. The City’s Comprehensive Plan has the following elements – Land Use, Capital Facilities, Transportation, Utilities, Housing, and Parks and Recreation. The most recent City of Cle Elum Comprehensive Plan can be accessed via the following link <https://cleelum.gov/city-servicesplanningcomprehensive-plan-update/>.

The majority of development in the Cle Elum area has been for recreational or second homes. Historically, most of the development has occurred in the mountainous and forested areas of the City. Furthermore, many hillsides have been cleared and roads are being developed to provide access to these lands. The County has also seen a rise over the past decade of families buying houses in the Cle Elum area and commuting daily to the Seattle area.

Table 4 summarizes development trends in the performance period since development of the previous hazard mitigation plan and expected future development trends.

Table 4. Recent and Expected Development Trends

Criteria	Response
Has your jurisdiction annexed any land since the development of the previous Hazard Mitigation Plan?	No
<i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i>	N/A
Is your jurisdiction expected to annex any areas during the performance period of this Plan?	No



Criteria	Response
Has your jurisdiction had any major changes in development over the <u>past</u> five (5) years that have occurred in hazard prone areas?	No
<i>If yes, please briefly describe.</i>	N/A
Are any areas targeted for development or major redevelopment in the <u>next</u> five (5) years that will occur in hazard prone areas?	Yes
<i>If yes, please briefly describe.</i>	City Heights and Bullfrog Flats UGA are previously annexed areas, and City Heights has approval for development and Bullfrog is currently under review.
Provide a qualitative description of where development has occurred in hazard areas.	City Heights has steepened slopes and wetlands. Bullfrog Flats has numerous critical areas encumbering the site.

4.1. Changes in Priority

In the last five (5) years, the City of Cle Elum has adopted a Critical Areas ordinance and new code regulations. The City has also updated Cle Elum’s Comprehensive Plan which includes Firewise. The City intends to continue to address wildlife susceptibility and develop mechanisms through which the community may become more “fire wise” through education and implementation of Firewise principles. Additionally, mitigation actions from the previous Plan were updated, and a more concerted effort on achieving equitable outcomes for all communities, including underserved communities and socially vulnerable populations, has been implemented.

5. CAPABILITY ASSESSMENT

Federal regulations require hazard mitigation plans to identify goals for reducing long-term vulnerabilities to the identified hazards in the planning area (Section 201.6(c)(3)(i)). A critical step in the development of specific hazard mitigation actions and projects is assessing existing authorities, policies, programs, and resources and capabilities to use or modify local tools to reduce losses and vulnerability from profiled hazards.

A capability assessment was conducted for the City of Cle Elum and participating jurisdictions’ authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment. Information regarding the City’s implementation of and continued participation in the National Flood Insurance Program (NFIP) can be found in Section 8 of this Annex.

The Local Planning Team assessed the City’s capabilities that can contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include the following categories:

- Planning and Regulatory Capabilities
- Administrative and Technical Capabilities
- Financial Capabilities
- Education and Outreach Capabilities

Additionally, ways to expand on and improve these existing policies and programs to integrate hazard mitigation into the day-to-day activities and programs of the City were considered.



5.1. Planning and Regulatory Capabilities

These include local ordinances, policies, and laws to manage growth and development (e.g., land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes, and zoning ordinances). The City of Cle Elum will adopt the approved 2025 Kittitas County Hazard Mitigation Plan by reference into the City’s Comprehensive Plan. **Table 5** contains a list of legal and regulatory capabilities.

Table 5. Planning and Regulatory Capabilities

Capability Category	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances, and Requirements				
Building Code	Yes	No	Yes	Title 15 of the Cle Elum Municipal Code (CEMC) adopts the 2019 International Building Code (IBC). CEMC adopts the 2009 IBC, 7/27/2010 (The City is currently utilizing 2018 IBC with plans to adopt the 2021 IBC as City standards in Spring 2024.) Title 14.04 of the Kittitas County Code (KCC). Chapter 19.27 of the Revised Code of Washington (RCW)
Zoning Code	Yes	No	No	Title 17 of the, CEMC Title 17 of the KCC
Subdivisions Code	Yes	No	Yes	Title 16 of the CEMC (2005)Title 16, CEMC, 2005 Title 16 of the KCC
Post-Disaster Recovery	No	No	No	
Real Estate Disclosure	No	No	Yes	RCW Chapter 64.06.020
Growth Management	Yes	No	Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for cities and counties. RCW 36.70A City of Cle Elum Comprehensive Plan (2021)
Site Plan Review	Yes	No	No	Title 15 of the CEMC Site plans are reviewed for compliance with codes and development regulations.
Special Purpose (flood management, critical areas)	Yes	No	Yes	Title 15, Chapter 15.24 (Flood Damage Prevention of the CEMC Title 18 (Critical Areas) of the CEMC (2010)Flood damage Prevention: Title 15, Chapter 15.24; 2002 Critical Areas: Title 18, CEMC, 2010



Capability Category	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
Planning Documents				
Comprehensive Plan	Yes	No	Yes	Cities in Washington State must update their Comprehensive Plan every eight (8) years. Washington State's Growth Management Act (GMA) and RCW.36.70A. Last adopted in November 2021.
Comprehensive Emergency Management Plan	Yes	No	Yes	RCW 38.52 The County Comprehensive Emergency Plan (CEMP) was last updated in 2016, and an update is in progress.
Community Wildfire Protection Plan	Yes	No	No	City of Cle Elum Ordinance 1646, Comprehensive Plan Amendment to include Firewise. Kittitas County Community Wildfire Protection Plan was updated in 2018 and amended in 2022.
Transportation Plan	Yes	No	Yes	The Transportation Element, a requirement of the Growth Management Act, is part of the City's Comprehensive Plan.
Floodplain or Basin Plan	Yes	No	No	Kittitas County Comprehensive Floodplain Management Plan (1996).
Stormwater Plan	Yes	No	No	2019 Stormwater Management Manual for Eastern Washington
Capital Improvement Plan	Yes	No	Yes	The Capital Facilities Plan, a required element of the Growth Management Act, is adopted as part of the 2021 Comprehensive Plan.
Habitat Conservation Plan	Yes	No	Yes	The GMA requires cities and counties to adopt regulations for the protection of environmental areas, which include habitat conservation areas. It is incorporated in Chapter 7 (Environment) of the City's Comprehensive Plan.
Economic Development Plan	Yes	No	No	Economic Development Group of Kittitas County & Chamber.
Emergency Response Plan	No	No	No	
Shoreline Management Plan	Yes	No	Yes	Title 18.02 of the CEMC, Ord. 1606 Plan was last adopted in 2021.
Post-Disaster Recovery Plan	No	No	No	

5.2. Administrative and Technical Capabilities

The administrative and technical capabilities include community (i.e., public and private) staff and their skills and tools, which can be used for mitigation planning and implementation. This capability includes engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers. Small communities may rely on other government entities, such as counties or



special districts, for resources. These capabilities may be used to support mitigation activities. **Table 6** lists administrative and technical capabilities.

Table 6. Administrative and Technical Capabilities

Staff/Personnel Resources	Available	Position/Department/Agency
Planners or engineers with knowledge of land development and land management practices	Yes	City Planner, Consultant City Engineer, Consultant
Engineers or professionals trained in building or infrastructure construction practices	Yes	Chief Building Official, Cle Elum Building Department
Planners or engineers with an understanding of natural hazards	Yes	City Planner, Consultant City Engineer, Consultant
Staff with training in benefit/cost analysis	No	N/A
Floodplain Manager/Administrator	Yes	City Planner, Consultant
Surveyors	Yes	City Engineer, Consultant
Personnel skilled or trained in GIS applications	Yes	City Planner, Consultant City Engineer, Consultant
Staff familiar with natural hazards in local area	Yes	Fire Chief, Cle Elum Fire Department Cle Elum Public Works Department City Planner, Consultant City Engineer, Consultant
Emergency Manager	Yes	City Mayor, Mayor's Office
Grant writers	Yes	City Planner, Consultant City Engineer, Consultant

5.3. Financial Resources

Table 7 contains a list of financial capabilities available to the City. These financial resources may be used to support mitigation activities based on procedures for each resource.

Table 7. Financial Resources

Financial Resources	Accessible or Eligible to Use
Community Development Block Grants (CDBG)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
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	No



5.4. Education and Outreach Capabilities

Table 8 lists the City's financial and public outreach capabilities. These capabilities include fire safety programs, hazard awareness campaigns, public information, and communications offices. Education and outreach capabilities can be used to inform the public about current and potential mitigation activities.

Table 8. Education and Outreach Resources

Resource	Available	Position/Department/Agency/Description
Public Information Officer	No	N/A
Personnel skilled or trained in website development	Yes	City Clerk, Office Assistant, Permit Technician
Hazard mitigation information available on your website	No	N/A
Utilize social media for hazard mitigation education and outreach	Yes	Facebook: facebook.com/cityofcleelum/
Citizen boards or commissions that address issues related to hazard mitigation	Yes	City Planner, Cle Elum Planning Department City Engineer, Cle Elum Engineering Department Public Works Director, Cle Elum Public Works Department Fire Chief, Cle Elum Fire Department
Other programs already in place that could be used to communicate hazard-related information	No	N/A
An established warning systems for hazard events	Yes	Kittitas County Sheriff's Office, Emergency Management Office

5.5. Needs to Expand/Improve Capabilities

The City of Cle Elum identified existing authorities, policies, programs, funding, and/or resources that need to be expanded and/or improved in order to support the implementation of the hazard mitigation initiatives identified in this Plan (e.g., mitigation actions).

- Acquire a Public Information Officer (PIO) to help promote awareness of hazard mitigation and activities associated with current and future mitigation projects that are being implemented. Additionally, the PIO could support City staff to ensure hazard mitigation information is available on the City's website and social media.
- In order to increase the City's capability to apply for hazard mitigation grants and fund the local match for hazard mitigation grants, the City needs to expand its grant writing capabilities by potentially hiring more grant writers.
- GIS capabilities need improvement.
- Building codes and ordinances should be reviewed based on developing trends in identified hazards and mitigation measures that can make them more effective at preventing losses. Furthermore, building codes should be updated to comply with the latest international and state building codes.

6. HAZARD MITIGATION PLAN INTEGRATION

The information on hazards, risk, vulnerability, and mitigation contained in this Hazard Mitigation Plan is based on the best available data at the time of the Plan update. Plan integration consists of the incorporation of hazard mitigation into other relevant planning mechanisms (e.g., general planning and capital improvement 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 collaborative hazard mitigation planning.

6.1. Existing Plan Integration

In the performance period since the adoption of the previous Hazard Mitigation Plan, City of Cle Elum made progress on integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into the planning initiatives listed in **Table 9**.

Table 9. Existing Plan Integration

Planning Initiative	Description
Critical Areas Ordinance	This Hazard Mitigation Plan is currently used as an essential tool to update the Critical Areas Ordinance.
Shoreline Master Program	The strategies and actions in the Cle Elum Shoreline Master Program integrate with the Hazard Mitigation Plan. For example, by regulation, structural flood hazard reduction measures must be consistent with the adopted Kittitas County Hazard Mitigation Plan.
Comprehensive Plan	The Hazard Mitigation Plan is utilized to identify new information that was not available during the previous revision of the Comprehensive Plan, relating to hazards (i.e., flood and fire), and climate adaptation and resiliency strategies.
Capital Improvement Plan	The Capital Improvement Plan (CIP) should continue to utilize flexibility in the CIP to incorporate mitigation measures in planned projects and the project evaluation criteria which includes public health and safety, regulatory compliance, and grant funding requirements.

6.2. Potential Future Integration

As the Hazard Mitigation Plan is implemented, City of Cle Elum will use information from the Plan as the best available science and data on hazards. The capability assessment presented in Section 5 of this Annex identifies codes, plans, and programs that provide opportunities for integration. The Citywide and local action plans developed for this Hazard Mitigation Plan are related to plan integration. The capability assessment identified plans and programs, listed in **Table 10**, that do not currently integrate goals and recommendations of this Plan but provide opportunities to do so in the future.

Table 10. Potential Future Integration

Planning Initiative	Description
City Comprehensive Plan	This Hazard Mitigation Plan will be incorporated in the next Comprehensive Plan update. The opportunity to incorporate additional hazard mitigation and abatement measures will be contemplated for inclusion in the next Comprehensive Plan update. The Comprehensive Plan must be updated every (8) years.
Capital Improvement Plan	The City will continue to ensure consistency between this Hazard Mitigation Plan and future updates of the Capital Improvement Plan. 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.



Planning Initiative	Description
Municipal Code	<p>Mitigation actions and the hazard risk assessment in this Hazard Mitigation Plan can inform updates and revisions to the Municipal Code.</p> <p>The Building and Construction (Title 15) and Subdivisions (Title 16) codes will be reviewed based on development trends in identified hazards and mitigation measures that can make them more effective at preventing losses. Additionally, mitigation can be integrated into future Zoning Code (Title 17) updates to inform appropriate use of property within the City. Portions of this Plan with the associated mapping will be considered for inclusion in the next Municipal Code updates, as appropriate.</p>

The City’s Local Planning Team will identify all relevant planning initiatives that are scheduled to be updated in the next year and during the annual update process of the Hazard Mitigation Plan. Additionally, opportunities to integrate key elements of the Hazard Mitigation Plan, specifically any relevant strategies, into the planning initiatives will be identified by the Local Planning Team. Mitigation actions were identified to promote plan integration in future revisions of this Plan.

7. SIGNIFICANT HAZARD PAST EVENTS

A complete risk assessment, including past incidents, for each identified hazard of concern can be found in **Volume 1** of this Plan.

8. NATIONAL FLOOD INSURANCE PROGRAM

The City of Cle Elum is a member of the National Flood Insurance Program (NFIP) but has chosen to not participate in the NFIP’s Community Rating System (CRS). The City’s NFIP participation information is listed in **Table 11**.

Table 11. NFIP Participation Information

CID	Community Name	NFIP Participation Date	Current Effective FIRM Date	CRS Entry Date	CRS Current Effective Date	CRS Class
530096	City of Cle Elum	5/5/1981	9/24/2021	N/A	N/A	N/A

8.1. Floodplain Manager

As an NFIP participating jurisdiction, the City of Cle Elum has a designated Floodplain Manager that is charged with enforcing floodplain regulations, routinely monitoring the floodplains, and providing community assistance such as encouraging owners to maintain flood insurance. The City’s Floodplain Manager information is listed in **Table 12**.

Table 12. Floodplain Manager

Jurisdiction	Department	Name	Title	Phone Number
City of Cle Elum	Mayor’s Office	Matthew Lundh	Mayor	(509) 674-2262

8.2. Participation Activities

The City of Cle Elum NFIP participation activities over the last five (5) years include the following:

- Provides the following services – permit review, GIS, inspections, and engineering capability.
- Enforces local floodplain regulations and monitors compliance.
- Floodplain management regulations meet or exceed FEMA or State minimum requirements.

8.2.1. Substantial Damage

Substantial damage means damage of any origin sustained by a structure by which the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. (*Municipal Code Title 15, Chapter 15.24*)

8.2.2. Substantial Improvement

Substantial improvement means any reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred *substantial damage*, regardless of the actual work performed. The term does not, however, include either:

- Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions.
- Any alteration of a historic structure, provided that the alteration will not preclude the structure’s continued designation as a historic structure. (*Municipal Code Title 15, Chapter 15.24*)

8.3. Repetitive Loss and Severe Repetitive Loss Property

The Federal Emergency Management Agency (FEMA) defines a Repetitive Loss property as an NFIP insured structure with two (2) or more claims of more than \$1,000 each within any rolling 10-year period, since 1978.⁷

A Severe Repetitive Loss property is defined by FEMA as any NFIP insured structure for which either of the following is true when at least two (2) of the claims are within 10 years of each other (claims made within 10 days will be counted as one (1) claim):⁸

- That has incurred flood related damage for which four (4) or more separate claims payments have been made, with the amount of each claim (including buildings and contents payments) exceeding \$5,000, and with the cumulative amount of such claims exceeding \$20,000.
- For which at least two (2) separate claims payments (building payments only) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the building.

Repetitive loss records from the City of Cle Elum are listed in **Table 13**.

⁷ Federal Emergency Management Agency. (2020). Repetitive Loss Structure. Retrieved from <https://www.fema.gov/node/405233>.

⁸ Federal Emergency Management Agency, National Flood Insurance Program. (2022). Flood Insurance Manual: Risk Rating 2.0: Equity in Action Edition. Retrieved from https://www.fema.gov/sites/default/files/documents/fema_nfip-flood-insurance-full-manual_102022.pdf.



Table 13. Repetitive Loss Properties

Jurisdiction	Repetitive Loss Properties	Severe Repetitive Loss Properties
City of Cle Elum	1	0

Table 14 summarizes the NFIP active policies and coverage in force data for the City of Cle Elum.

Table 14. NFIP Policies

Jurisdiction	NFIP Policies	Insurance in Force	Total Claims Paid	Sum of Claims Paid
City of Cle Elum	19	\$5.337 Million	12	\$162,832

9. HAZARD VULNERABILITY AND IMPACT ASSESSMENT

Exposure and vulnerability to certain hazards affect the entire County and others are geographically defined. Although the entire County may be vulnerable to these hazards, their impacts may vary based on existing community conditions (e.g., underserved, or functional access needs populations may be more susceptible based on certain conditions, vulnerabilities, or needs).

Table 15 outlines the *unique vulnerabilities and impacts* for the City of Cle Elum and only addresses the hazards that are relevant and unique to the jurisdiction. A complete risk assessment for each identified hazard of concern is in **Volume 1** of this Plan. Hazard mapping can be found in **Appendix A** of this Annex.

Table 15. Hazard Vulnerability and Impact Assessment

Hazards	Vulnerabilities and Impacts
Avalanche	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to avalanches.
Dam and Levee Failure	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to dam and levee failure.
Drought	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to droughts.
Earthquake	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to earthquakes.
Flood	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to flooding.
Landslide	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to landslides.
Severe Weather <i>(thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures)</i>	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to severe weather.
Volcanic Activity	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to volcanic activity.
Wildfire <i>(wildfire smoke)</i>	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to wildfire.
Winter Weather <i>(ice storms, heavy snow, and blizzards)</i>	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to winter weather.
Communicable Diseases/Pandemic	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to communicable diseases/pandemics.



The City evaluated whether vulnerability and impact in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, changes in population, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard areas or is not built to the updated building codes, it may increase the community’s vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics (e.g., underserved population) were taken into consideration.

Table 16 outlines if climate change has increased or decreased the City’s vulnerability (i.e., exposure) and impact to each natural hazard over the past five (5) years, and the effect of climate change in the future probability of occurrence and impacts from each natural hazard.

Table 16. Climate Change Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
<i>Current Vulnerability and Impact</i>	
Avalanche	Remained the Same
Communicable Diseases/Pandemic	Remained the Same
Dam and Levee Failure	Increased
Drought	Increased
Earthquake	Remained the Same
Flood	Increased
Landslide	Remained the Same
Severe Weather (<i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i>)	Increased
Volcanic Activity	Remained the Same
Winter Weather (<i>ice storms, heavy snow, blizzards</i>)	Increased
Wildfire (<i>Wildfire Smoke</i>)	Increased
<i>Future Vulnerability and Impact</i>	
Avalanche	Increase
Communicable Diseases/Pandemic	No Change is Anticipated
Dam and Levee Failure	Increase
Drought	Increase
Earthquake	No Change is Anticipated
Flood	Increase
Landslide	Increase
Severe Weather (<i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i>)	Increase
Volcanic Activity	No Change is Anticipated
Winter Weather (<i>ice storms, heavy snow, blizzards</i>)	Increase



Hazard	Vulnerability and Impact
Wildfire (<i>Wildfire Smoke</i>)	Increase

Table 17 outlines if changes in population within the City over the past five (5) years have increased or decreased the vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated effects changes in population may have on the future probability of occurrence and impacts from these natural hazards.

Table 17. Changes in Population Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
<i>Current Vulnerability and Impact</i>	
Avalanche	Remained the Same
Communicable Diseases/Pandemic	Increased
Dam and Levee Failure	Increased
Drought	Increased
Earthquake	Increased
Flood	Increased
Landslide	Increased
Severe Weather (<i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i>)	Increased
Volcanic Activity	Remained the Same
Winter Weather (<i>ice storms, heavy snow, blizzards</i>)	Increased
Wildfire (<i>Wildfire Smoke</i>)	Increased
<i>Future Vulnerability and Impact</i>	
Avalanche	No Change is Anticipated
Communicable Diseases/Pandemic	Increase
Dam and Levee Failure	Increase
Drought	Increase
Earthquake	Increase
Flood	Increase
Landslide	Increase
Severe Weather (<i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i>)	Increase
Volcanic Activity	No Change is Anticipated
Winter Weather (<i>ice storms, heavy snow, blizzards</i>)	Increase
Wildfire (<i>Wildfire Smoke</i>)	Increase



Table 18 outlines if development over the past five (5) years has increased or decreased the jurisdiction’s vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts from these natural hazards.

Table 18. Changes in Development Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact
<i>Current Vulnerability and Impact</i>	
Avalanche	Remained the Same
Communicable Diseases/Pandemic	Remained the Same
Dam and Levee Failure	Remained the Same
Drought	Remained the Same
Earthquake	Remained the Same
Flood	Remained the Same
Landslide	Remained the Same
Severe Weather (<i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i>)	Remained the Same
Volcanic Activity	Remained the Same
Winter Weather (<i>ice storms, heavy snow, blizzards</i>)	Remained the Same
Wildfire (<i>Wildfire Smoke</i>)	Remained the Same
<i>Future Vulnerability and Impact</i>	
Avalanche	No Change is Anticipated
Communicable Diseases/Pandemic	Increase
Dam and Levee Failure	Increase
Drought	Increase
Earthquake	Increase
Flood	Increase
Landslide	Increase
Severe Weather (<i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i>)	Increase
Volcanic Activity	Increase
Winter Weather (<i>ice storms, heavy snow, blizzards</i>)	Increase
Wildfire (<i>Wildfire Smoke</i>)	Increase

The City anticipates future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan. Assets include people (including the underserved communities and socially vulnerable populations, structures (including new and existing buildings), community lifelines and other critical facilities and infrastructure, the City’s natural, historic, and cultural resources, and economy and other activities that have value to the community. Any new assets (e.g., new construction in hazard prone areas) will be constructed to adhere to the latest building codes and standards, and



mitigation to protect them from identified and anticipated hazards, especially those that are expected to increase due to climate change.

10. HAZARD RISK RANKING

Table 19 presents the local hazard ranking for the City of Cle Elum of all hazards of concern listed in **Volume 1** of this Plan. This ranking summarizes how hazards vary for this jurisdiction. 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.

It is important to note that the sub hazards for severe weather (i.e., strong wind/damaging winds, thunderstorms, cold wave/extreme cold, heat wave/extreme heat, hail and tornado) and wildfire (i.e., wildfire smoke) were individually ranked in the hazard risk ranking; however, severe weather and wildfire are each considered as the main hazard throughout this Annex and **Volume 1**.

Table 19. Hazard Risk Ranking

Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score (Probability x Consequence)
Winter Weather (Blizzard/Heavy Snow, Ice Storm)	3	15	16	24	55	77
Flood	2	18	16	31	65	63
Earthquake	2	12	16	33	61	59
Strong Wind / Damaging Winds (Severe Weather)	3	9	16	15	40	59
Wildfire Smoke (Wildfire)	3	9	10	20	39	57
Wildfire	2	15	11	27	53	53
Thunderstorms (Severe Weather)	2	6	16	26	48	48
Communicable Diseases / Pandemic	2	18	10	20	48	48
Cold Wave/Extreme Cold (Severe Weather)	2	12	12	20	44	45
Drought	2	9	6	29	44	45
Heat Wave/Extreme Heat (Severe Weather)	2	12	12	17	41	42
Dam and Levee Failure	1	18	16	29	63	34
Hail (Severe Weather)	1	6	16	16	38	22
Tornado (Severe Weather)	1	6	16	16	38	22



Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score (Probability x Consequence)
Volcanic Activity	1	12	6	15	33	20
Avalanche	1	6	6	13	25	15
Landslide	1	6	6	13	25	15
<p>Consequence: Sum of <u>all</u> weighted factors. Extent: Sum of the weighted <u>Extent</u> factors. Vulnerability: Sum of the weighted <u>Vulnerability</u> factors.</p> <p>Impact: Sum of the weighted <u>Impact</u> factors. Total Risk Score* = Probability x Consequence * Normalized to 100</p>						
Total Risk Score Legend						
Classification	Probability Factor	Extent	Vulnerability	Impact	Consequence Score	Total Risk Score
Low (L)	1	0 – 6	0 – 6	0 – 12	0 – 24	0 – 24
Medium (M)	2	7 – 12	7 – 12	13 – 26	25 – 50	25 – 54
High (H)	3	13 – 18	13 – 18	27 – 39	51 – 75	53 and above
<p>The legend—specifically the assignment of low, medium, and high—provides an additional means to qualitatively assess the probability factor, sum of weighted factors, and the total risk scores for each hazard. The Consequence Score represents the sum of the Extent, Vulnerability, and Impact Factors. The Total Risk Score is a measure of Probability and Consequence.</p>						



11. MITIGATION ACTIONS

This section includes the mitigation actions that were developed to address identified risks and vulnerabilities to hazards identified in this Plan. This Plan serves only to recommend mitigation measures based on the potential for risk reduction and available funding. Implementation of mitigation actions is dependent on risk reduction priorities, feasibility, and available funding. It is also dependent on the cooperation and support of the jurisdiction and/or department responsible for each action item.

The City of Cle Elum agreed upon **13** mitigation actions that apply to the jurisdiction’s properties where they have jurisdictional responsibility and authority. One (1) mitigation action was deleted/no longer needed and one (1) mitigation action was completed. A summary of the City’s mitigation actions status is listed in **Table 20**.

Table 20. City of Cle Elum Mitigation Actions Summary

Status		Mitigation Action Total	
Ongoing		10	
In Progress/In Work		1	
Not Started		2	
Delayed/Deferred		0	
New		0	
TOTAL		13	
Completed		1	
Deleted/No Longer Needed		1	
Mitigation Actions per Hazard			
Avalanche	6	Landslide	6
Dam and Levee Failure	9	Severe Weather	6
Drought	6	Volcanic Activity	6
Earthquake	6	Wildfire	9
Flood	10	Winter Weather	6

These shared actions, some of which address all hazards, help to meet the following requirements:

- Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure?
- Does the Plan include one (1) or more action(s) per jurisdiction for each hazard identified within the risk assessment?

A detailed explanation of the Mitigation Strategy can be found in Chapter 5 of **Volume 1**.



Mitigation Action	Consider participation in the National Flood Insurance Program (NFIP) Community Rating System (CRS) program.				
Action Number	CE-1	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	30/40
Goal(s) Addressed	1, 2, 3, 4, 5		Hazard(s) Mitigated	Dam and Levee Failure, Flood	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	Medium				
Lead Agency / Organization	Cle Elum City Council		Supporting Agency / Organization (If applicable)	n/a	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Short Term		Estimated Cost	Low	
Potential Funding Source	Local Budgeted Funds		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority (If applicable)			



Mitigation Action	Adopt appropriate regulatory standards that will reduce the risk of natural hazards through updates of existing code affecting critical areas regulations, flood hazard regulations, shoreline regulations, and updates to the County's Comprehensive Plan.				
Action Number	CE-2	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	n/a
Goal(s) Addressed	1, 2, 5		Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
Project Status	Completed	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	n/a				
Lead Agency / Organization	Cle Elum Planning Department		Supporting Agency / Organization (If applicable)	n/a	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	n/a		Estimated Cost	n/a	
Potential Funding Source	n/a		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	n/a	
Implementation Priority	n/a	Changes in Priority (If applicable)	The City has adopted a Critical Areas Ordinance and new code regulations.		



Mitigation Action	Repair, design, implement permitting, and construct left bank of the Yakima River adjacent to Interstate 90 and Hanson Ponds.				
Action Number	CE-3	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	26/40
Goal(s) Addressed	1, 2		Hazard(s) Mitigated	Flood	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	High				
Lead Agency / Organization	Cle Elum Public Works Department		Supporting Agency / Organization (If applicable)	Kittitas Conservation Trust	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Short Term		Estimated Cost	Medium	
Potential Funding Source	HMGP, BRIC, FMA Other		If Other, you must identify a funding source.	Pacific Coastal Salmon Recovery Fund	
			Please provide further detail on Potential Funding Source.	n/a	
Implementation Priority	Medium	Changes in Priority (If applicable)			



Mitigation Action	Maintain compliance and good standing under the National Flood Insurance Program (NFIP).				
Action Number	CE-4	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	29/40
Goal(s) Addressed	1, 2, 4, 5		Hazard(s) Mitigated	Dam and Levee Failure, Flood	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	Medium				
Lead Agency / Organization	Cle Elum Public Works, Cle Elum Planning Department, Cle Elum Building Department		Supporting Agency / Organization (If applicable)	Kittitas County Public Works	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Low	
Potential Funding Source	Local Budgeted Funds		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	Changes in Priority (If applicable)			



Mitigation Action	Consider participation in the National Weather Service “StormReady” Program.				
Action Number	CE-5	Year Initiated / Anticipated Year of Initiation	n/a	Prioritization Score	n/a
Goal(s) Addressed	1, 3, 4		Hazard(s) Mitigated	Flood, Severe Weather	
Project Status	Deleted/No Longer Needed		<i>If Deleted/No Longer Needed, provide reason.</i>	No staff availability to participate.	
Benefits <i>(Loss Avoided)</i>	n/a				
Lead Agency / Organization	Cle Elum Public Works Department		Supporting Agency / Organization <i>(If applicable)</i>	n/a	
Additional Participating Jurisdictions <i>(If applicable)</i>	n/a				
Project Duration	n/a		Estimated Cost	n/a	
Potential Funding Source	n/a		<i>If Other, you must identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	n/a	
Implementation Priority	n/a	Changes in Priority <i>(If applicable)</i>			



Mitigation Action	Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to protect structures from future damage, with properties with exposure to repetitive losses as a priority.				
Action Number	CE-6	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	30/40
Goal(s) Addressed	1, 2, 5		Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
Project Status	In Progress/In Work	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits <i>(Loss Avoided)</i>	High				
Lead Agency / Organization	Cle Elum Building Department, Cle Elum Planning Department, Cle Elum Public Works		Supporting Agency / Organization <i>(If applicable)</i>	n/a	
Additional Participating Jurisdictions <i>(If applicable)</i>	n/a				
Project Duration	Long Term		Estimated Cost	High	
Potential Funding Source	Local Budgeted Funds, BRIC, FMA, CDBG, FEMA PA		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority <i>(If applicable)</i>			



Mitigation Action	Support and maintain participation in the Firewise Program by expanding the number of project sites within the City of Cle Elum and promoting Firewise strategies through active community outreach.				
Action Number	CE-7	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	32/40
Goal(s) Addressed	1, 3, 4		Hazard(s) Mitigated	Wildfire	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	High				
Lead Agency / Organization	Cle Elum Fire Department		Supporting Agency / Organization (If applicable)	Kittitas County Fire Adaptive Communities, Washington State Department of Natural Resources, United States Forest Service; Kittitas County Public Works; Other Local Fire Districts	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Low	
Potential Funding Source	Local Budgeted Funds, HMGP Post Fire, Other		If Other, you must identify a funding source.	Community Wildfire Defense Grant, Washington Department of Natural Resources (Cost-Share Programs) Funds	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority (If applicable)	The City will continue to address wildfire susceptibility and develop mechanisms through which the community may become more "fire wise" through education and implementation of Firewise principles. This has been included in the Comprehensive Plan.		



Mitigation Action	Develop and implement a Continuity of Operations Plan (COOP) and/or Post-Disaster Recovery Plan to ensure critical City functions remain operational after an incident or disaster.				
Action Number	CE-8	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	29/40
Goal(s) Addressed		1, 4	Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
Project Status		Not Started	<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
Benefits <i>(Loss Avoided)</i>	High				
Lead Agency / Organization	Cle Elum Mayor's Office		Supporting Agency / Organization <i>(If applicable)</i>	Kittitas County Sheriff's Office (Emergency Management)	
Additional Participating Jurisdictions <i>(If applicable)</i>	n/a				
Project Duration	Long Term		Estimated Cost	Medium	
Potential Funding Source	Local Budgeted Funds, HMGP, BRIC, FMA		<i>If Other, you must identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	Changes in Priority <i>(If applicable)</i>			



Mitigation Action	Conduct public outreach on natural hazards, their risks, and alternatives to reduce risks and impacts through existing public outreach programs in the City of Cle Elum.				
Action Number	CE-9	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	32/40
Goal(s) Addressed	1, 3, 4		Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	Low				
Lead Agency / Organization	Cle Elum Mayor's Office		Supporting Agency / Organization (If applicable)	Kittitas County Sheriff's Office (Emergency Management), American Red Cross	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Low	
Potential Funding Source	Local Budgeted Funds		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority (If applicable)			

**2025 Hazard Mitigation Plan
Kittitas County, Washington**



Mitigation Action	Support the implementation, monitoring, maintenance, and updating of the Kittitas County Hazard Mitigation Plan, as outlined in Volume 1 (Countywide Planning Elements).				
Action Number	CE-10	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	40/40
Goal(s) Addressed	1, 2, 3, 4, 5		Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	High				
Lead Agency / Organization	Cle Elum Planning Department		Supporting Agency / Organization (If applicable)	Kittitas County Public Works	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Low	
Potential Funding Source	Local Budgeted Funds		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority (If applicable)			



Mitigation Action	Support, through active participation, the Countywide initiatives identified in Volume 1 (Countywide Planning Elements) of the Kittitas County Hazard Mitigation Plan.				
Action Number	CE-11	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	40/40
Goal(s) Addressed	1, 2, 3, 4, 5		Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	Medium				
Lead Agency / Organization	Cle Elum Planning Department		Supporting Agency / Organization (If applicable)	Kittitas County Public Works	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Low	
Potential Funding Source	Local Budgeted Funds		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority (If applicable)			



Mitigation Action	Implement fuels reduction strategies and vegetation maintenance to reduce wildfire vulnerability and impacts in the Wildland Urban Interface across all property ownerships.				
Action Number	CE-12	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	31/40
Goal(s) Addressed	1, 2, 5		Hazard(s) Mitigated	Wildfire	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	Low				
Lead Agency / Organization	Cle Elum Fire Department		Supporting Agency / Organization (If applicable)	Kittitas County Sheriff's Office (Emergency Management)	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Medium	
Potential Funding Source	Local Budgeted Funds, HMGP, HMGP Post Fire, BRIC, Other		If Other, you must identify a funding source.	Washington State Department of Natural Resources Grant, United States Forest Service Grant, Community Wildfire Defense Fund	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	High	Changes in Priority (If applicable)			



Mitigation Action	Provide emergency power for all City critical facilities and infrastructure.				
Action Number	CE-13	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	31/40
Goal(s) Addressed	1	Hazard(s) Mitigated	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather		
Project Status	Ongoing	<i>If Deleted/No Longer Needed, provide reason.</i>	n/a		
Benefits <i>(Loss Avoided)</i>	High				
Lead Agency / Organization	Cle Elum Public Works Department	Supporting Agency / Organization <i>(If applicable)</i>	Cle Elum Planning Department, Cle Elum Building Department, Cle Elum Police Department, Cle Elum Fire Department		
Additional Participating Jurisdictions <i>(If applicable)</i>	n/a				
Project Duration	Short Term	Estimated Cost	High		
Potential Funding Source	HMGP, HMGP Post Fire, BRIC	<i>If Other, you must identify a funding source.</i>	n/a		
		<i>Please provide further detail on Potential Funding Source.</i>	n/a		
Implementation Priority	High	Changes in Priority <i>(If applicable)</i>			



Mitigation Action	Elevate the Cle Elum River backup wellfield controls to protect the back-up water source.				
Action Number	CE-14	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	29/40
Goal(s) Addressed		1, 5	Hazard(s) Mitigated	Dam and Levee Failure, Flood	
Project Status		Not Started	<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
Benefits (Loss Avoided)	High				
Lead Agency / Organization	Cle Elum Public Works Department		Supporting Agency / Organization (If applicable)	n/a	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Short Term		Estimated Cost	High	
Potential Funding Source	HMGP, BRIC, FMA		<i>If Other, you must identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	n/a	
Implementation Priority	High	Changes in Priority (If applicable)			



Mitigation Action	Implement alternative methods and strategies to provide sustainable vegetation and debris removal in the Wildland Urban Interface by incorporating equipment to better dispose and reuse material (i.e., Tub Grinders). Sustainable processing of vegetation and organic matter can ultimately lead to new opportunities for biomass energy utilization and material needed for restoration.				
Action Number	CE-15	Year Initiated / Anticipated Year of Initiation	2019	Prioritization Score	30/40
Goal(s) Addressed	1, 3		Hazard(s) Mitigated	Wildfire	
Project Status	Ongoing	If Deleted/No Longer Needed, provide reason.		n/a	
Benefits (Loss Avoided)	High				
Lead Agency / Organization	Cle Elum Fire Department		Supporting Agency / Organization (If applicable)	n/a	
Additional Participating Jurisdictions (If applicable)	n/a				
Project Duration	Ongoing		Estimated Cost	Medium	
Potential Funding Source	Local Budgeted Funds, HMGP, HMGP Post Fire		If Other, you must identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	General Fund (Staff Time)	
Implementation Priority	Medium	Changes in Priority (If applicable)			



APPENDIX A. HAZARD MAPS

Figure 1	City of Cle Elum Planning Area
Figure 2	Critical Facilities within and around the City boundary
Figure 3	Liquefaction Susceptibility (Earthquake) <i>Helps assess potential damage from earthquakes in the City.</i>
Figure 4	Special Flood Hazard Area (SFHA) <i>Includes each Flood Zone, and the 500-year floodplain. Flood Insurance Rate Maps (FIRMs) show the flood zones, floodplain boundaries, and Base Floor Elevation (BFE) and are used for floodplain management, flood insurance ratings, and to determine flood insurance requirements. FIRMs show areas with a 1% chance of flooding each year, commonly known as the 100-year floodplains, and are illustrated as the SFHA. The 500-year floodplains show areas with a 0.2% chance of flooding each year.</i>
Figure 5	Cle Elum Dam Inundation Area Map
Figure 6	Easton Dam Inundation Area Map
Figure 7	Keechelus and Kachees Dam Inundation Area Map
Figure 8	Wildfire Likelihood Map <i>Wildfire likelihood is the annual probability of wildfire burning in a specific location.</i>
Figure 9	Wildfire Risk to Homes Map <i>Wildfire risk to homes measures the relative consequence of wildfire to residential structures everywhere on the landscape, whether a home actually exists there or not.</i>



Figure 1. City of Cle Elum Planning Area

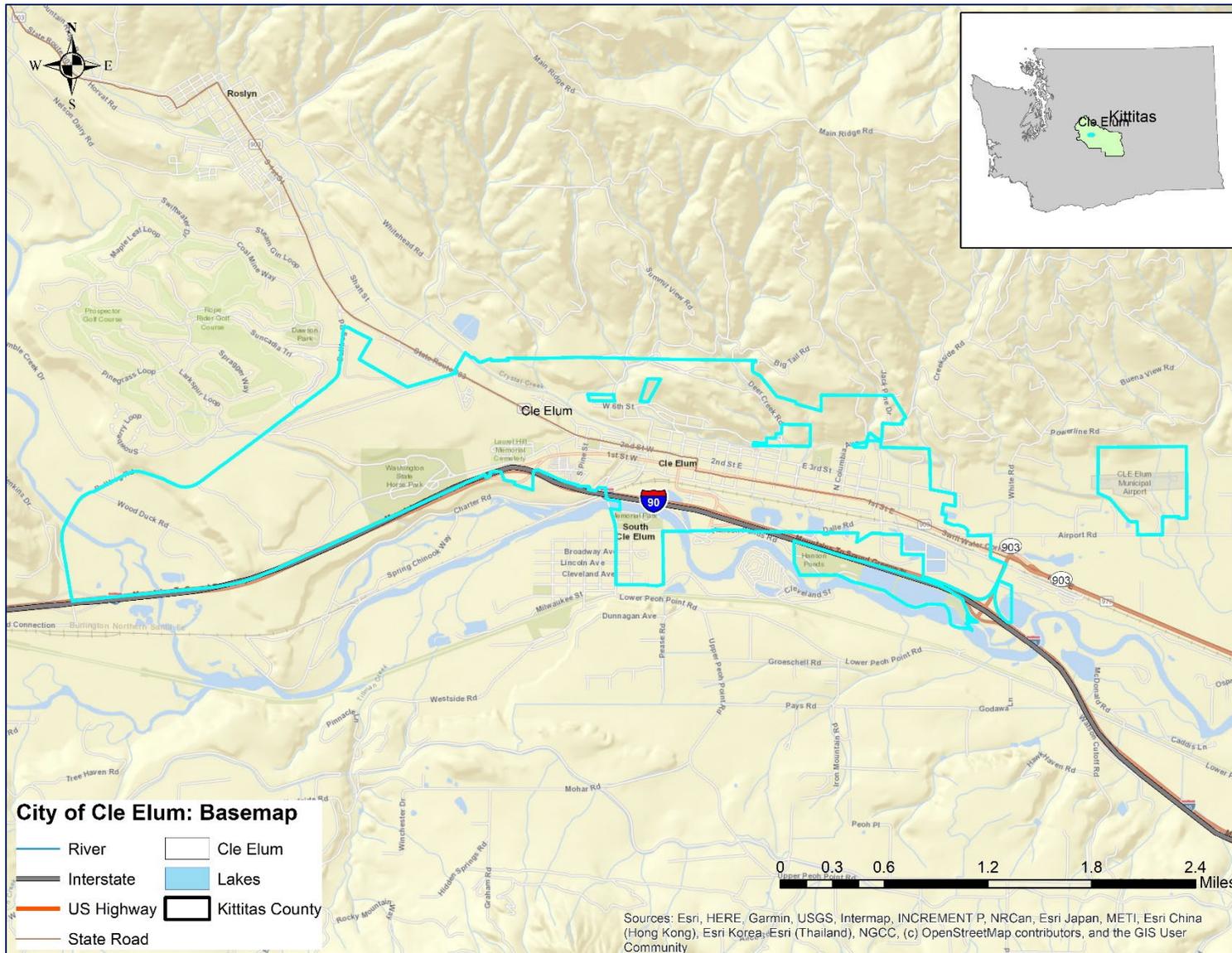




Figure 2. City of Cle Elum Critical Facilities

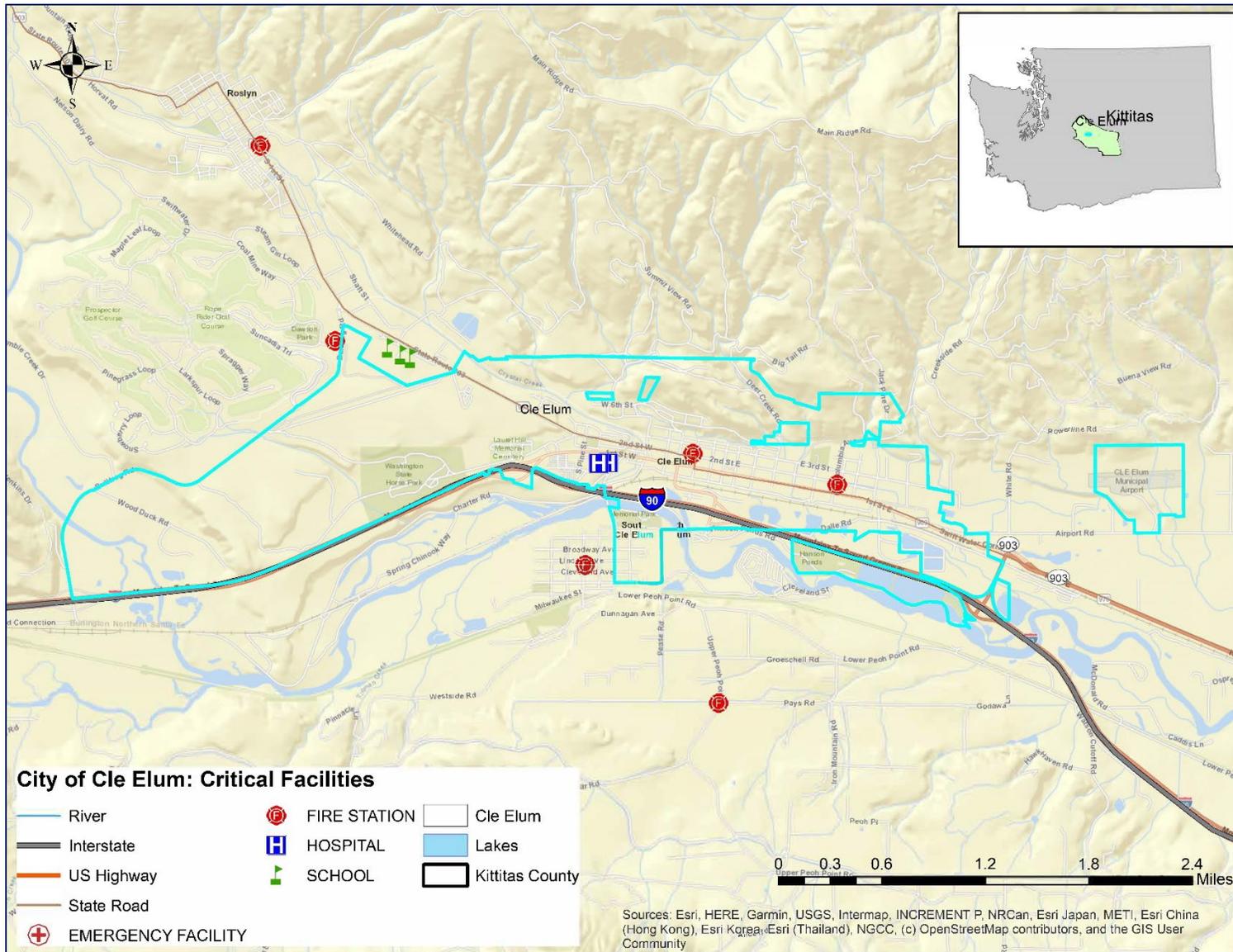




Figure 3. Liquefaction Susceptibility (Earthquake)

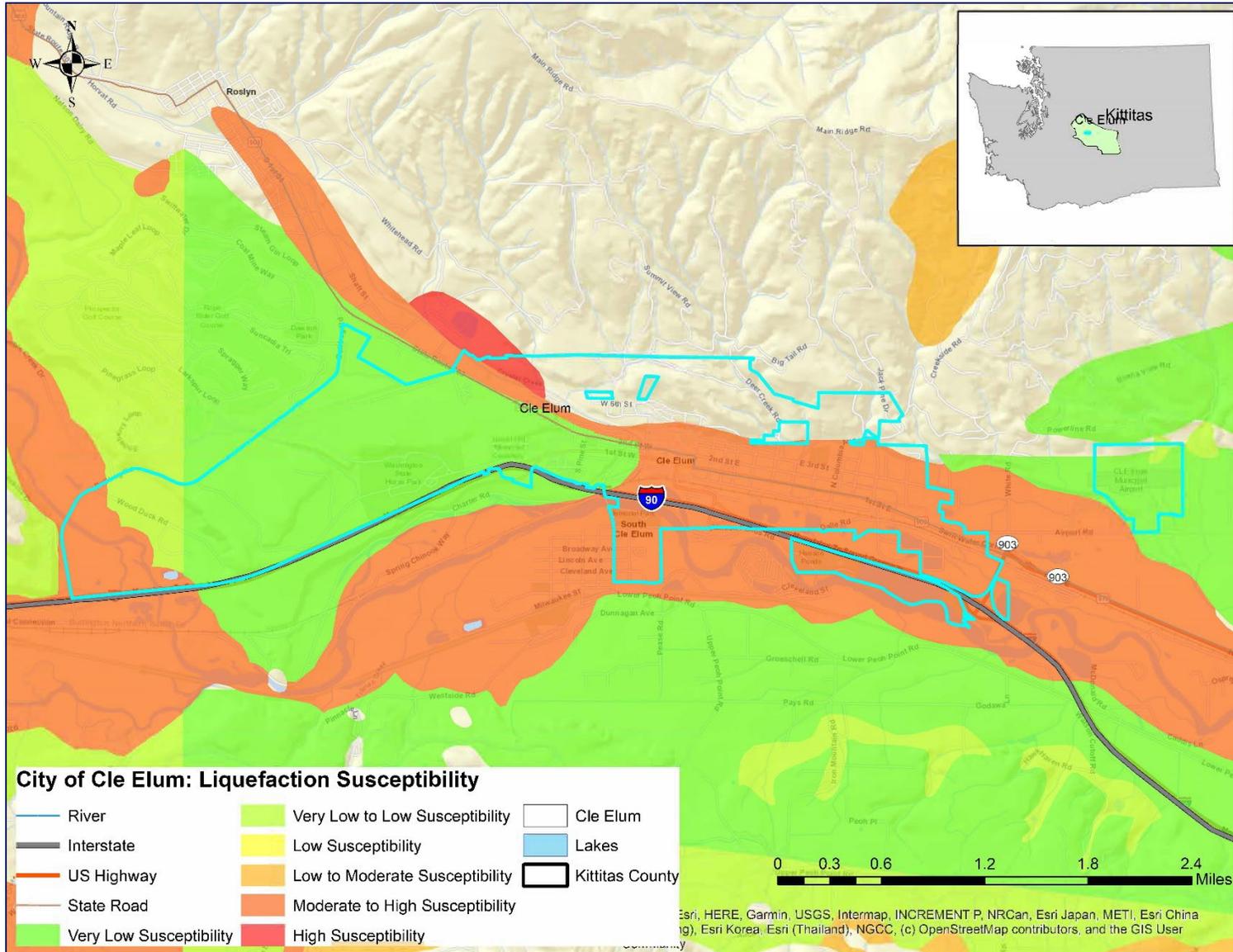




Figure 4. Special Flood Hazard Area

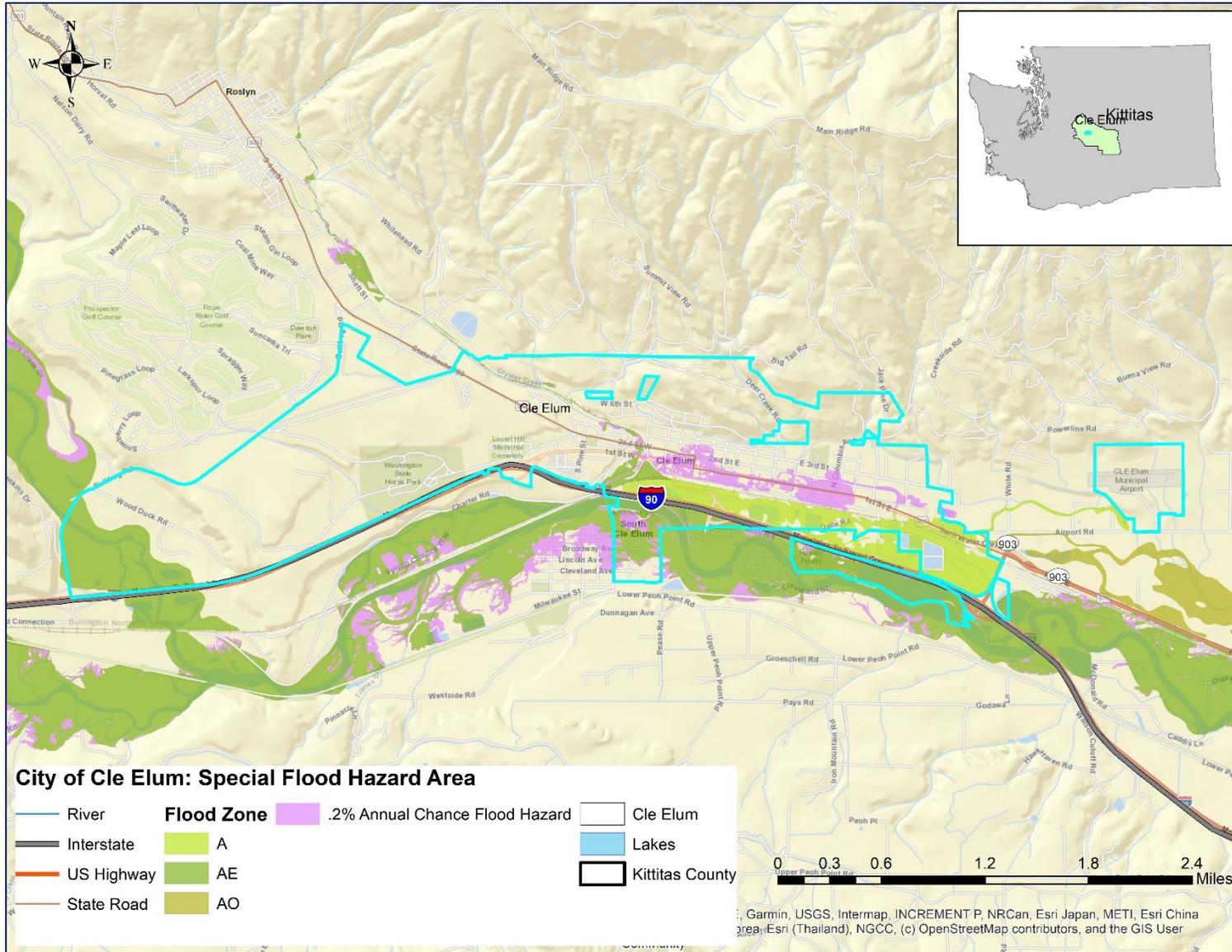




Figure 5. Cle Elum Dam Inundation Area

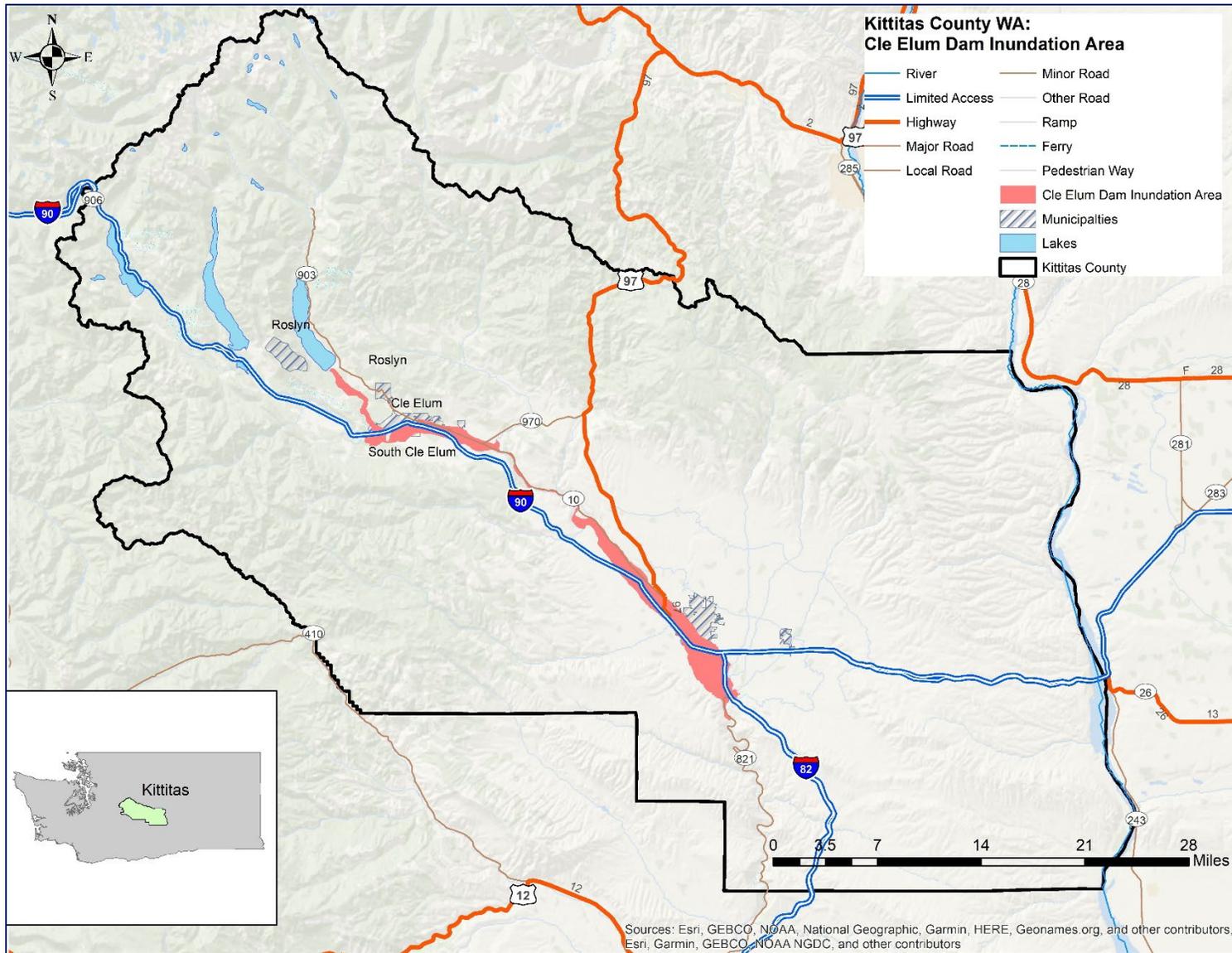




Figure 6. Easton Dam Inundation Area

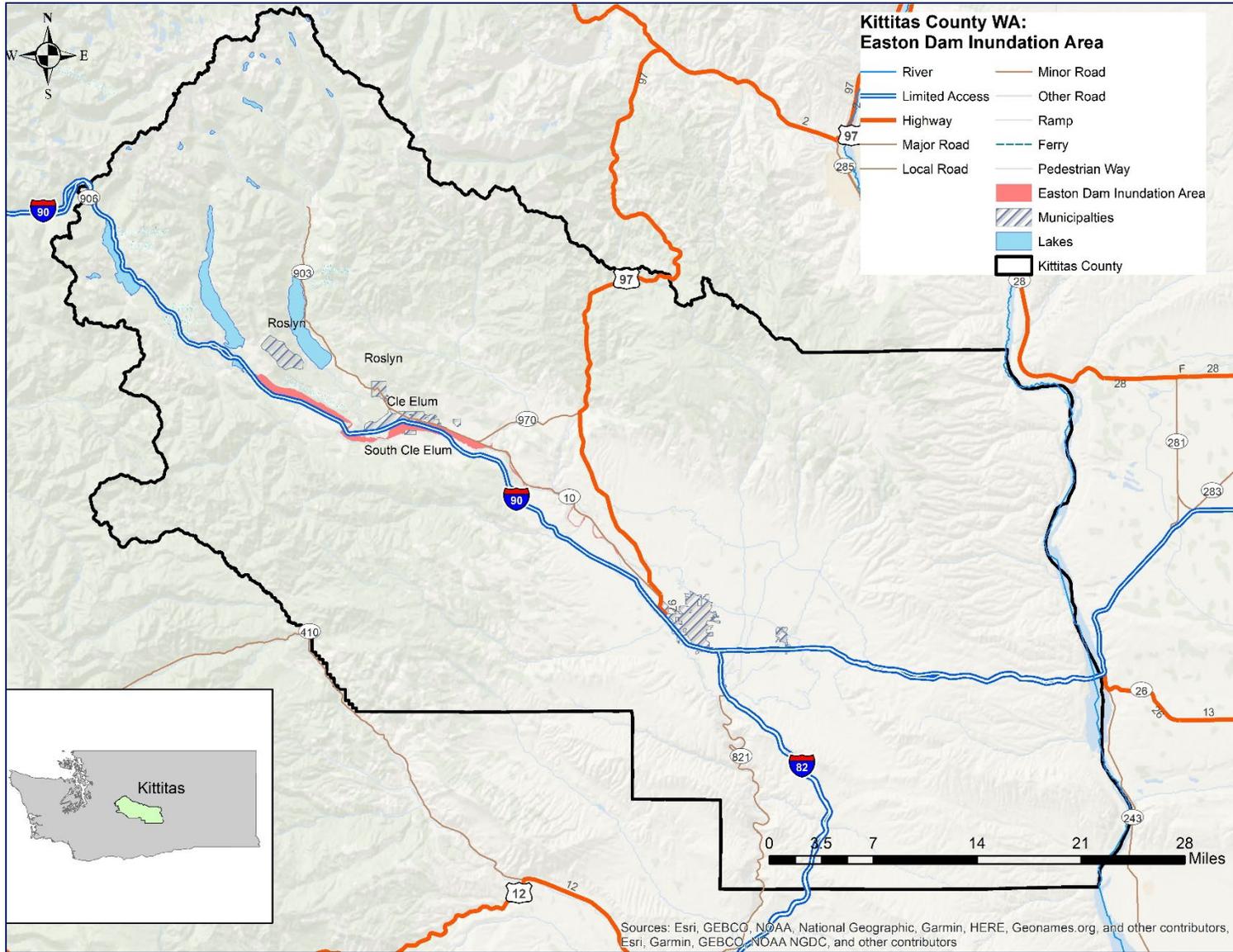




Figure 7. Keechelus and Kachees Dam Inundation Area

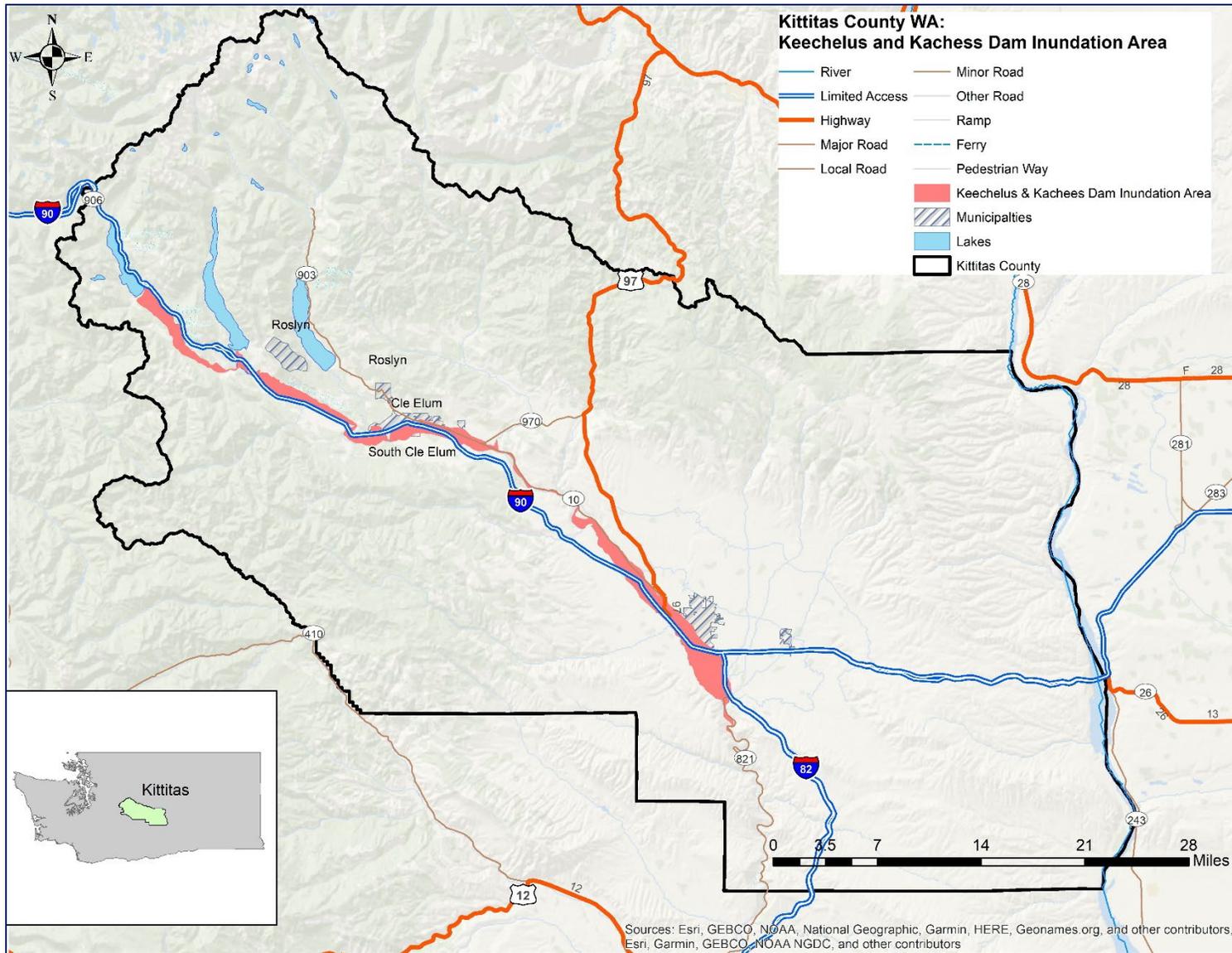




Figure 8. Wildfire Likelihood

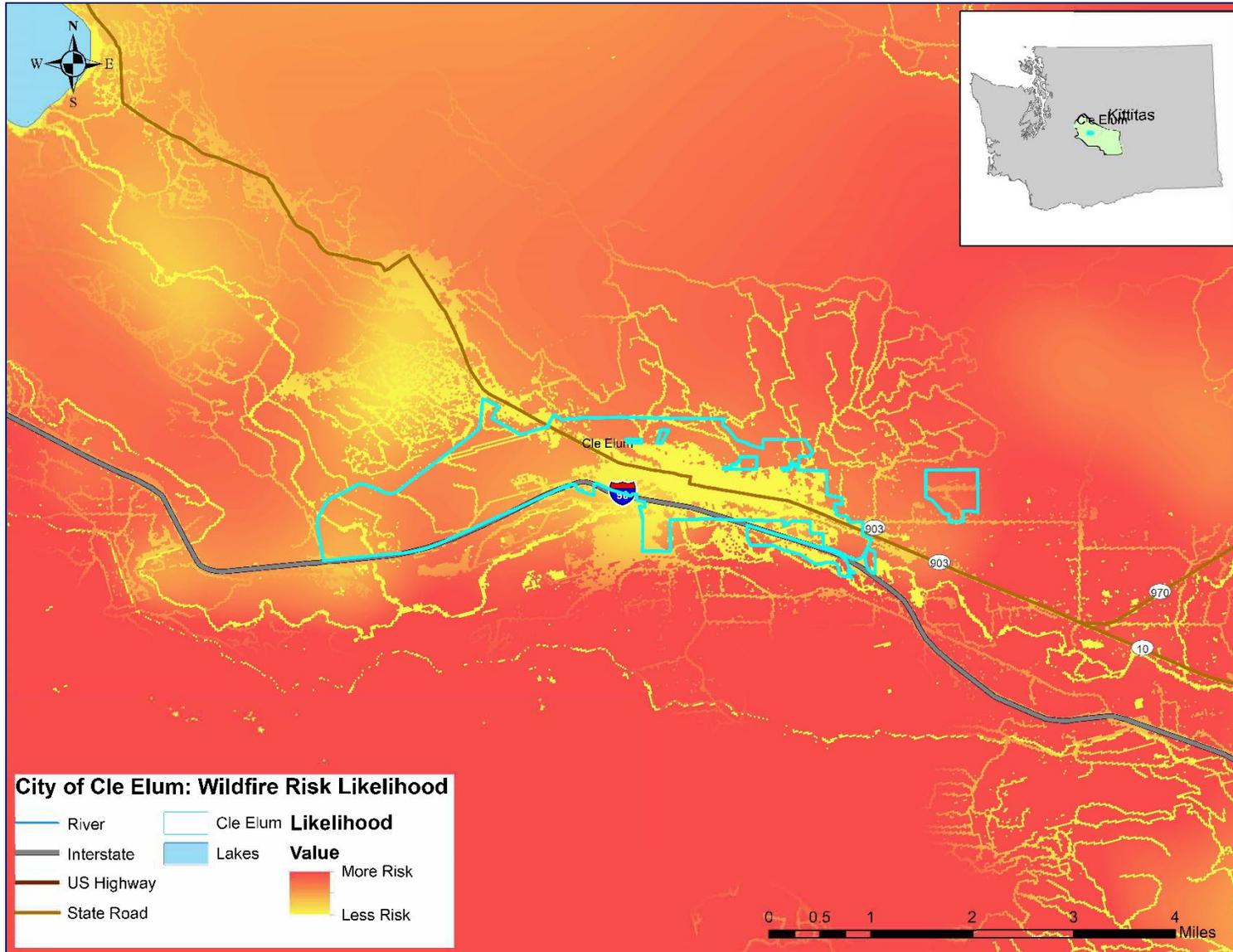
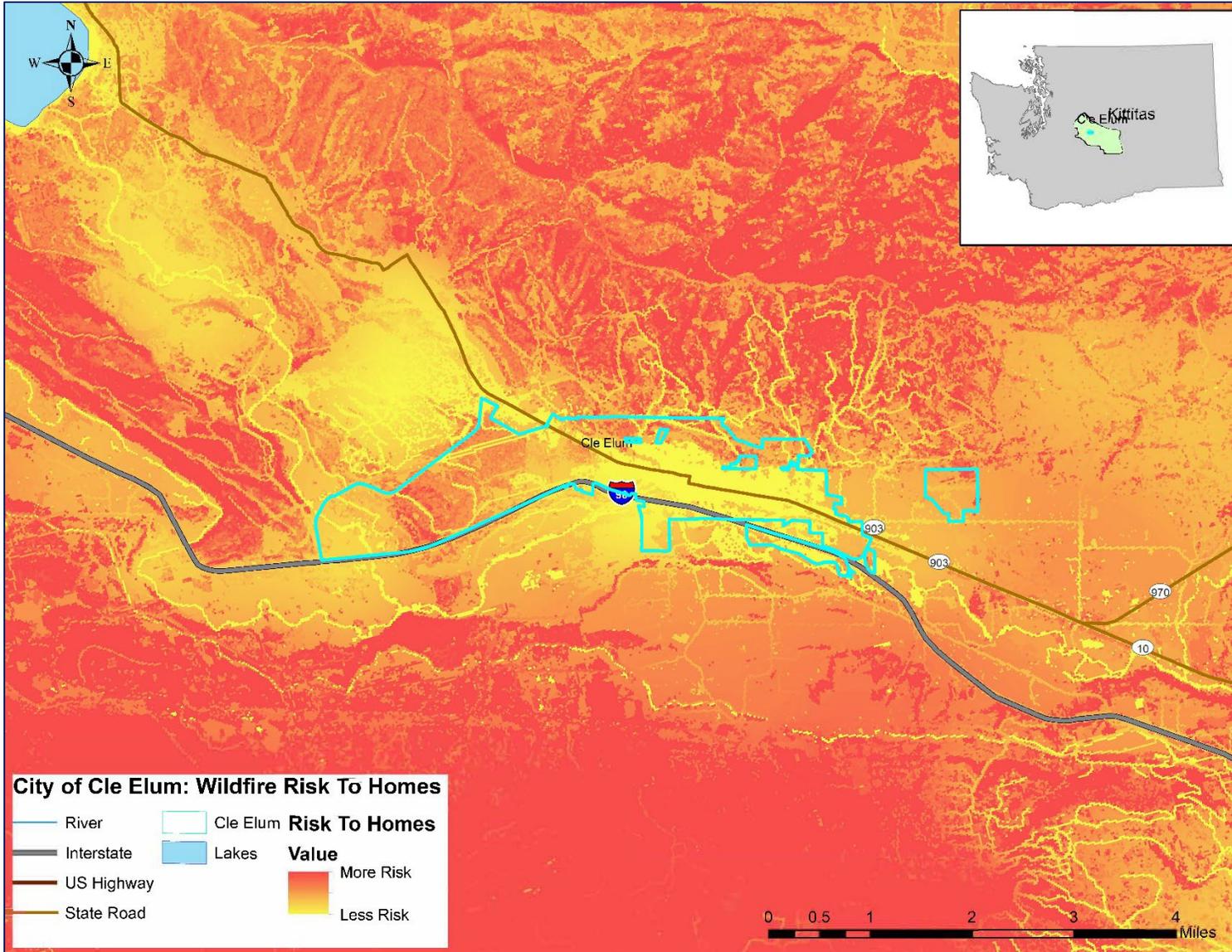


Figure 9. Wildfire Risk to Homes





APPENDIX B. PLAN ADOPTION

[Placeholder for adoption documentation after State and FEMA Approval]