

# KITTITAS COUNTY

# HAZARD MITIGATION PLAN

Central Washington University  
Annex



Kittitas County  
Public Works Department





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## 1. INTRODUCTION

This Annex details the hazard mitigation elements specific to Central Washington University, 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 Central Washington University. This Annex provides additional information specific to the University, 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 Central Washington University Local Planning Team was comprised of the members listed on **Table 1**.

**Table 1. Central Washington University Local Planning Team Members**

Name	Title	Department
Robert Cepeda	Emergency Management Coordinator	Office of Emergency Management

## 3. JURISDICTION PROFILE

Central Washington University (CWU) is a public university with nine (9) locations across the State of Washington. The main campus is located in the City of Ellensburg and has a traditional residential component, sprawling grounds, and an extensive array of academic and campus life activities.

The University has five (5) undergraduate colleges – William O. Douglas Honors College, College of the Sciences, Colleges of Education and Professional Studies, College of Arts and Humanities, and College of Business – and the School of Graduate Studies and Research for graduate programs.

CWU has been a participant of the National Weather Service StormReady Program and has been recognized as Weather-Ready Nation partner since December 2020.

### 3.1. Population

Central Washington University had 8,939 students enrolled during the 2023-2024 school year. Between the 2019-2020 and 2021-2022 school years, there was a 13.3% decrease in student enrollment and another 4.9% decrease occurred between the 2022-2023 and 2023-2024 school years. **Table 2** shows the University’s student enrollment distribution between 2019 and 2024.

**Table 2. Student Enrollment Estimates**

Jurisdiction	2019-2020 School Year	2020-2021 School Year	2021-2022 School Year	2022-2023 School Year	2023-2024 School Year	Enrollment Change (2019 – 2024)
Central Washington University	11,907	11,289	10,325	9,395	8,939	-24.9%



### 3.1.1. Underserved Population

In CWU, underserved students include, but are not limited to, those of ethnic minority status, international students (nonresidents), students with disability, English as a second language, and socioeconomically disadvantage. CWU has implemented various programs and initiatives that support the underserved population by assisting low-income, first generation students, and students with disabilities in overcoming obstacles to higher education. **Table 3** outlines the underserved population within the University’s student body.<sup>1</sup>

**Table 3. Underserved Student Population (2023-2024)**

Category		Students	Percent
Ethnic Minority Status	Hispanic or Latino of any race(s)	1,776	19.9%
	Two or More Races	653	7.3%
	Asian	330	4.0%
	American Indian/Alaskan Native	46	0.5%
	Black/African American	410	4.6%
	Native Hawaiian or Other Pacific Islander	69	0.8%
International Students (nonresidents)		214	2.4%
English as a Second Language (ESL)		23	0.2%
Low-Income		3,315	33.3%
First Generation Students		4,236	42.5%
Students with Disabilities		932	9.4%

### 3.2. Brief History

Central Washington University was founded in 1891 as the Washington State Normal School, which served future elementary and junior high teachers. The School’s student body consisted of 50 pupils ranging between 15 and 50 years old with many only possessing an eighth-grade education. In 1937 it became accredited as an official College of Education. Enrollment and expansion of the program continued throughout the years including the acquisition of land that doubled the campus to 226 acres. In 1974, the School changed its name to Central Washington University. The Ellensburg campus is on lands ceded by the Pshwanapum and other bands and tribes of the Yakama Nation in the Treaty of 1855.

### 3.3. Governing Body Format

Led by the Office of the President, the University Executive Leadership Team supports the creation and realization of CWU’s vision, development of institutional priorities, and the expression of CWU’s vision and value. The Office of the President’s mission is to guide and support the University’s efforts to be a leader in higher education in the State and to prepare the diverse student body for enlightened, responsible, and productive futures. The Board of Trustees serves as the University’s governing body working closely with the President, are appointed by the Washington State Governor, and can serve a maximum of two (2) terms of six (6) years. The Executive Leadership Team reports directly to the President and is comprised of the senior university administrators who serve as the University’s officers.

<sup>1</sup> Ibid.



The Team collaborates closely with the President, trustees, and academic leadership to provide advice, develop, and implement university-wide initiatives, and oversee the operation of the University.

#### 4. DEVELOPMENT TRENDS

In the last five (5) years, CWU has seen fluctuations in enrollment numbers, influenced by broader demographic shifts and economic factors. For instance, many universities, including CWU, experienced declines in enrollment due to the COVID-19 Pandemic, which affected college attendance patterns. Furthermore, there has been significant growth in online and hybrid learning options, partly driven by the Pandemic. As a result, CWU expanded its online course offerings and programs to accommodate the changing needs and preferences of students. In an effort to attract a more diverse student body, there has been an increased focus on diversity and inclusion. This includes initiatives to support underrepresented minorities and first-generation college students. Also, in response to changing job market demands, CWU has introduced new programs and degrees. This includes new majors and concentrations in fields such as data science, environmental studies, and health sciences. The University has also invested in campus infrastructure and facilities, including new housing options, updated classrooms, and recreational facilities, to enhance the student experience and accommodate growth.

In the next five (5) years, like many universities, CWU is adapting to new enrollment patterns and recovery from the COVID-19 Pandemic impacts. Therefore, the University is expected to see a stabilization in enrollment numbers with gradual growth. The trend towards online and hybrid learning is expected to continue, with more students seeking flexible learning options. CWU will likely expand its online offerings and hybrid courses to meet this demand. There will be an increased focus on programs that enhance career readiness and employability. For example, CWU may develop more partnerships with businesses and industries to offer internships, co-op programs, and experiential learning opportunities. Additionally, changes in demographic trends (e.g., shifts in high school graduation rates and regional population changes), will influence enrollment patterns. CWU may focus on targeted recruitment efforts to address these shifts and attract students from diverse backgrounds. There will likely be a greater emphasis on sustainability and innovative practices, both in terms of academic programs and campus operations. CWU may implement more green initiatives and sustainability-focused programs in response to growing environmental concerns.

Overall, CWU is expected to adapt to evolving educational demands and demographic shifts, focusing on flexibility, diversity, and career readiness to meet the needs of future students.

**Health Education Project:** The \$60.5 Million project, funded from a State appropriation, includes:

- Renovating and updating the existing performance gymnasium/convocation center, locker rooms, and Nicholson Pavilion classroom, office, and meeting spaces.
- Addition of new weight areas with new equipment.
- Expansion of the fieldhouse.
- Construction of a new lobby/vestibule area.
- Renovations to adjacent Purser Hall to create a new classroom and meeting space.

The pavilion's distinctive cable-suspended roof, one of the first in the country, will remain. Additionally, the CWU is constructing the building to Leadership in Energy and Environmental Design (LEED) certification standards for green buildings.

**North Academic Complex (NAC) Project:** A new 108,000-square-foot building to be located in the north-central area of campus on the south side of Dean Nicholson Boulevard, which is the current location



of the International Flag Plaza. The heating and cooling system for the NAC will consist of a new open-loop ground source heat pump system drawing from the Ellensburg Aquifer to be housed in a separate building currently intended to be located on the north side of Dean Nicholson Boulevard northeast of the building site.

**Electrical Grid Security Project:** The \$1.508 Million project addresses unstable electrical cabling that supports service to 13 highly trafficked academic and residential facilities with a new feeder line. The poor state of the cable and lack of redundancy makes this northern area of the Ellensburg campus vulnerable to a catastrophic electrical outage. This project eliminates the risk of a major outage causing extensive damage and costly repairs.

**Chiller Addition Project:** The \$3.189 Million project promotes the reliability and securing of institutional cooling by adding a new 1200-ton chiller at the existing Boiler/Chiller plant. This project is being executed as an Energy Services Performance Contract (ESPC) Guaranteed Savings model. The delivery method guarantees certain savings on a client's energy bill by utilizing the Department of Enterprise Services (DES) to assist in the management of an Energy Service Company (ESCO) that will execute the construction project and then provide ongoing measurement & verification that the system is continually meeting the performance standards that have been guaranteed.

#### 4.1. Changes in Priority

CWU did not participate in the previous iteration of the Kittitas County Hazard Mitigation Plan; therefore, a change in priority for the University includes ensuring participation in hazard mitigation initiatives and implementation of this Hazard Mitigation Plan throughout other University planning mechanism. Additionally, a more concerted effort on achieving equitable outcomes for all communities, including underserved communities and socially vulnerable populations, has been implemented in the mitigation actions identified for this Plan.

### 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, resources, and capabilities to use or modify local tools to reduce losses and vulnerability from profiled hazards.

A capability assessment was conducted for Central Washington University and participating jurisdictions' authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment. Information regarding the University'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 University'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 University 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). CWU relies on Kittitas County and municipal government to maintain a strong framework of codes, ordinances, and requirements to help mitigate the impacts of the hazards identified in this Plan. **Table 4** contains a list of legal and regulatory capabilities.

**Table 4. Planning and Regulatory Capabilities**

Capability Category	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
<b>Codes, Ordinances, and Requirements</b>				
Higher Education	No	No	Yes	Chapter 28B of the Revised Code of Washington (RCW) governs the operations of public universities in Washington State, including financial management, campus safety, and governance structures.
Building Code	Yes	Yes	Yes	CWU applies the most current building codes (based on jurisdiction) in place for construction, renovation, and maintenance of campus buildings.  Title 14 of the Kittitas County Code (KCC) contains building codes and standards that CWU must adhere to when constructing or renovating campus facilities.  Title 15 of the Ellensburg Municipal Code (EMC) governs land use, zoning, and development standards within the City of Ellensburg, where CWU is located. This includes regulations on building height, setbacks, and campus expansion.
Health and Safety	No	No	Yes	Chapter 296-24 of the Washington Administrative Code (WAC) applies occupational safety and health regulations that CWU must adhere to for the protection of employees and students.  Title 6 of the EMC includes ordinances related to public health, sanitation, and safety that the university must follow, including noise regulations and waste management.
Site Plan Review	Yes	No	No	Site plans are reviewed for compliance with codes and development regulations.
Environmental Protection	Yes	No	Yes	State Board of Health School Rule, Chapter 246-366 WAC.



Capability Category	Local Authority	Other Jurisdictional Authority	State Mandated	Comments
<b>Planning Documents</b>				
Comprehensive Plan	Yes	No	Yes	Cities in Washington State must update their Comprehensive Plan every eight (8) years, per GMA and RCW.36.70A.
Comprehensive Emergency Management Plan	No	Yes	Yes	CWU Comprehensive Emergency Management Plan (CEMP) was developed in 2022 and undergoing an update in 2023.
Campus Master Plan	No	Yes	No	CWU's long-term development plan, which outlines future construction projects, land use planning, and infrastructure improvements. It must align with both city and county regulations.
Emergency Response Plan	No	No	Yes	Various types of plans are in place, which help reduce the impact from the hazards of concern.  CWU is working with all university divisions and departments to develop a Continuity of Operations Plan (COOP) and Building Emergency Operations Plans since 2020.

## 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 5** lists administrative and technical capabilities.

**Table 5. Administrative and Technical Capabilities**

Staff/Personnel Resources	Available	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Assistant Vice President, Facilities Management Department & Capital Planning
Engineers or professionals trained in building or infrastructure construction practices	Yes	Director, Capital Planning and Projects Division
Planners or engineers with an understanding of natural hazards	Yes	Director, Capital Planning and Projects Division Director, Facility Maintenance
Staff with training in benefit/cost analysis	Yes	Director, Capital Planning and Projects Division Director, Facility Maintenance
Floodplain Manager/Administrator	No	N/A
Surveyors	No	An Engineering Aide is in training
Personnel skilled or trained in GIS applications	Yes	Cartographer, Facilities Management
Staff familiar with natural hazards in the local area	Yes	Emergency Management Coordinator, CWU Office of Emergency Management
Emergency Manager	Yes	Emergency Management Coordinator, CWU Office of Emergency Management



Staff/Personnel Resources	Available	Department/Agency/Position
Grant writers	Yes	Executive Director Federal Grants, Finance and Administration

### 5.3. Financial Resources

**Table 6** contains a list of financial capabilities available to the University. These financial resources may be used to support mitigation activities based on procedures for each resource.

**Table 6. 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	No
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

### 5.4. Education and Outreach Capabilities

**Table 7** lists the University'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 7. Education and Outreach Resources**

Resource	Available	Department/Agency/Position
Public Information Officer	Yes	Associate Director, Strategic Communications, CWU Division of University Relations Emergency Management Coordinator, University Police and Public Safety, CWU Office of Emergency Management
Personnel skilled or trained in website development	Yes	Vice President, CWU Division of University Relations
Hazard mitigation information available on your website	Yes	Emergency Manager, CWU Office of Emergency Management
Utilize social media for hazard mitigation education and outreach	Yes	<b>Facebook:</b> <a href="https://www.facebook.com/cwu.wildcats">facebook.com/cwu.wildcats</a> <b>X:</b> <a href="https://twitter.com/CentralWashU">x.com/CentralWashU</a> <b>Instagram:</b> <a href="https://www.instagram.com/central_washington_university/">instagram.com/central_washington_university/</a>
Citizen boards or commissions that address issues related to hazard mitigation	No	N/A
Other programs already in place that could be used to communicate hazard-related information	Yes	Professors, Geography and Construction and Safety Management Departments



Resource	Available	Department/Agency/Position
An established warning systems for hazard events	Yes	Emergency Manager, CWU Office of Emergency Management  <i>RAVE MNS, ALERTUS, and EAS messages (through the University radio station, 88.1 FM)</i>

## 5.5. Needs to Expand/Improve Capabilities

CWU 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).

- Grant writing capabilities need to be expanded in order to improve the University’s ability to apply for hazard mitigation grants and other State and Federal grants to fulfil hazard mitigation actions outlined in this Plan.

## 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

Central Washington University did not participate in the previous iterations of the Kittitas County Hazard Mitigation Plan. However, the University has made progress on integrating components of hazard mitigation into existing planning initiatives.

- CWU’s Facilities Management Department used Capital Minor Works funds to do periodic upgrades and maintenance to the portions of Wilson Creek that flow through the east part of campus, near residential neighborhoods. These tasks (in coordination with Fish & Wildlife) provide proper egress for the aquatic species that use the Creek while also mitigating potential flooding during the spring snowfall thaw of the surrounding valley walls.
- CWU’s Capital Planning and Projects Division completed the following upgrades:
  - Cascade ditch which serves the northeast portion of Campus for irrigation. These upgrades are part of critical irrigation planning that allows proper growth in Campus areas that could pose potential washout conditions during high yield flooding periods in the spring.
  - Transformer that serves the Psychology Department which allows CWU to redirect power or load shed from non-critical areas to critical areas during emergencies.
- CWU’s Capital Planning and Projects Division has a transformer replacement program, in which transformers are sent to a third-party company to be refurbished or salvaged at the end of its life. As a result, the University either gets the refurbished transformer back at a fraction of the cost (compared to purchasing a new one) or monetary credit towards a new transformer. In both



scenarios, CWU benefits by ensuring electrical resiliency within campus operations and the versatility to direct power to critical areas during an emergency.

- Currently, CWU’s Facilities Management Department and its Capital Planning and Projects Division are working on purchasing a new generator for the University’s boiler plant. The CWU Campus operates off a central energy plant that distributes gas fired steam throughout Campus for heat. This generator allows CWU to have the critical plant operational throughout an electrical outage.

## 6.2. Potential Future Integration

As the Hazard Mitigation Plan is implemented, Central Washington University 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 University wide 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 8**, that do not currently integrate the goals and recommendations of this Plan but provide opportunities to do so in the future.

**Table 8. Potential Future Integration**

Planning Initiative	Description
Emergency Operations Plans	Utilize the hazard risk assessment of this Hazard Mitigation Plan to implement/enhance the University’s Emergency Operations Plans (i.e., drought).
Comprehensive Emergency Management Plan	Utilize the hazard risk assessment of this Hazard Mitigation Plan to implement in the next update of the University’s Comprehensive Emergency Management Plan.
Student and Faculty Outreach Program	CWU will use the hazard risk assessment in this Hazard Mitigation Plan to enhance the Outreach Program to better inform students and faculty on natural hazard preparedness and mitigation.
University’s Strategic Plan	CWU will ensure consistency between this Hazard Mitigation Plan and future updates of the University’s Strategic Plan. The Hazard Mitigation Plan may identify new possible funding sources for projects identified in the Strategic Plan and may result in modifications to proposed projects based on results of the risk assessment.

CWU’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

As a special district, Central Washington University is not eligible to participate in FEMA’s National Flood Insurance Program (NFIP). Further information on Kittitas County’s NFIP and Community Rating System (CRS) participation is available on **Volume 1** of this Plan.



## 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 9** outlines the *unique vulnerabilities and impacts* for Central Washington University 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 9. Hazard Vulnerability and Impact Assessment**

Hazards	Vulnerabilities and Impacts
<b>Avalanche</b>	The Local Planning Team determined that the CWU does not have unique vulnerabilities and impacts to avalanches.
<b>Dam and Levee Failure</b>	Wilson Creek, a tributary of the Yakima River, runs through a portion of CWU's Campus, and frequently causes flooding issues, especially the CWU Museum of Culture and Environment that resides in Dean Hall.
<b>Drought</b>	The Local Planning Team determined that the CWU does not have unique vulnerabilities and impacts to drought.



Hazards	Vulnerabilities and Impacts
<p><b>Earthquake</b></p>	<p>CWU is located in the City of Ellensburg and while the City is not directly located on a major fault line, it is relatively close to several active faults, including the Yakima Fold Belt and the Rattlesnake Mountain Anticline. These geological structures can contribute to localized seismic activity and may amplify the effects of earthquakes in the area.</p> <p>The vulnerability of CWU buildings and infrastructure to earthquake damage can be influenced by the composition of the soil and bedrock underlying the area. Soft or loose soil types (e.g., alluvial deposits or sedimentary layers) can amplify ground shaking and increase the potential for soil liquefaction, which can lead to structural instability and ground failure during an earthquake.</p> <p>Per the Washington Unreinforced Masonry (URM) Dashboard tool, CWU has multiple potentially seismically vulnerable buildings. In 2001, CWU contracted an architectural firm that performed seismic evaluations on 45 Educational Buildings on the CWU campus utilizing the ASCE 31 Standard Tier 1 procedure. As a result, the following CWU building are seismically vulnerable</p> <ul style="list-style-type: none"> <li>• Barge Hall (built in 1894)</li> <li>• Kamola Hall (built in 1915)</li> <li>• Heating Plant (built in 1917)</li> <li>• Shaw Hall (built in 1925)</li> <li>• Samuelson Union Building (built in 1926)</li> <li>• Munson Hall (built in 1927)</li> <li>• Sue Lombard Hall (built in 1927)</li> <li>• McConnell Hall (built in 1935)</li> <li>• Hebel Hall (built in 1938)</li> <li>• Campus Courts Apartments (built in 1945)</li> <li>• Auxiliary Services Maintenance (built in 1946)</li> <li>• Lind Hall (built in 1947)</li> <li>• President's Residence (built in 1947)</li> <li>• Tunstall Commons Dining (built in 1951)</li> <li>• Computer Center (built in 1955)</li> <li>• Wilson Hall (built in 1955)</li> <li>• Recreation Center (built in 1957)</li> <li>• Button Hall (built in 1959)</li> <li>• Nicholson Pavilion (built in 1959)</li> <li>• All student housing (Wahle Apartments, Student Village, Stephens-Whitney, Moore-Anderson, and the Basettis)</li> </ul> <p>The earthquake vulnerability of structures on the CWU campus depends on construction methods and adherence to seismic building codes. Older buildings may not have been constructed with modern seismic design principles in mind, making them more susceptible to damage.</p>



Hazards	Vulnerabilities and Impacts
<p><b>Flood</b></p>	<p>Wilson Creek, a tributary of the Yakima River, runs through a portion of CWU's Campus, and frequently causes flooding issues, especially the CWU Museum of Culture and Environment that resides in Dean Hall.</p> <p>As climate change potentially increases the frequency and intensity of wildfires, there is potential for more floods following fire, which increase sediment loads and water quality impacts. The following CWU buildings lay along Wilson Creek, an irrigation ditch, and the Ellensburg Water Company Canal:</p> <ul style="list-style-type: none"> <li>• Dean Hall</li> <li>• Dugmore Hall</li> <li>• Montgomery Hall</li> <li>• Student Village</li> <li>• The Early Child Learning Center</li> </ul> <p>The Ellensburg Water Company Canal was dug between 1885 and 1889 to irrigate approximately 7,000 acres of farmland. Ultimately, it was found to contain traces of leptospirosis from cattle, tularemia (i.e., Rabbit Fever), tetanus, streptococcus, typhoid fever, and Bacillus coli.</p>
<p><b>Landslide</b></p>	<p>The Local Planning Team determined that the CWU does not have unique vulnerabilities and impacts to landslides.</p>
<p><b>Severe Weather</b> <i>(thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures)</i></p>	<p>CWU has limited emergency generators in housing and academic buildings which makes these facilities vulnerable to the impacts of severe weather which affect academic learning (i.e., power outages). Additionally, the University is vulnerable to falling and downed trees which can result in downed power lines.</p>
<p><b>Volcanic Activity</b></p>	<p>CWU has upgraded its HVAC systems across some academic buildings, but not all due to funding limitations. The facilities north of the canal generally need significant renovation (e.g., seismic, ADA, HVAC, digital technology, and energy efficiency).</p>
<p><b>Wildfire</b> <i>(wildfire smoke)</i></p>	<p>The CWU community is vulnerable to wildfire and wildfire smoke because of the impacts it has on the vulnerable student and faculty (e.g., those with respiratory and cardiovascular diseases) and interruption to the academic environment.</p>
<p><b>Winter Weather</b> <i>(ice storms, heavy snow, and blizzards)</i></p>	<p>The CWU community is uniquely vulnerable to the following issues – health (e.g., asthma, upper respiratory infections, etc.), older student housing facilities, and sporadic power outage issues (e.g., limited emergency generators). The vulnerable student population faces isolation and exposure during severe winter weather events and could suffer more secondary effects of the hazard.</p>



Hazards	Vulnerabilities and Impacts
<p><b>Communicable Diseases/Pandemic</b></p>	<p>Institutes of higher education, such as CWU, are uniquely vulnerable to communicable diseases/pandemics due to several factors.</p> <ul style="list-style-type: none"> <li>• <b>High-Density Living:</b> Colleges and universities often have high population densities, with students, faculty, and staff living, studying, and working near one another. This proximity increases the risk of person-to-person transmission of communicable diseases.</li> <li>• <b>Frequent Travel:</b> Students, faculty, and staff travel frequently for academic conferences, research collaborations, study abroad programs, and vacations. This frequent travel can facilitate the spread of communicable diseases across regions and even internationally.</li> <li>• <b>Shared Facilities:</b> Higher education institutions typically have shared facilities (e.g., classrooms, libraries, dining halls, and dormitories) where large numbers of people congregate. These shared spaces can facilitate the rapid transmission of pathogens, especially in situations where there is close contact and limited ventilation.</li> <li>• <b>Social Interaction:</b> Colleges and universities are hubs of social interaction, with students participating in a wide range of extracurricular activities, social events, and group study sessions. These social interactions provide many opportunities for the spread of communicable diseases, especially among populations of young adults who may be less likely to exhibit symptoms or seek medical care.</li> <li>• <b>International Student Population:</b> Many higher education institutions have significant numbers of international students who come from diverse geographic regions with varying levels of healthcare infrastructure and disease prevalence. This diversity increases the risk of introducing new pathogens to campus communities and can complicate efforts to control outbreaks.</li> <li>• <b>Limited Healthcare Resources:</b> While some larger universities may have on-campus healthcare facilities, many colleges and universities have limited healthcare resources available to students, faculty, and staff. In a communicable disease outbreak or pandemic, these healthcare facilities may quickly become overwhelmed, leading to delays in diagnosis, treatment, and containment efforts.</li> <li>• <b>Challenges of Compliance:</b> Ensuring compliance with public health guidelines (e.g., mask-wearing, physical distancing, and vaccination requirements) can be challenging in a college or university setting where individuals have varying levels of risk perception, adherence to guidelines, and access to healthcare resources.</li> </ul>

CWU 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 10** outlines if climate change has increased or decreased the University’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 10. Climate Change Current and Future Vulnerability and Impact**

Hazard	Vulnerability and Impact
<b><i>Current Vulnerability and Impact</i></b>	
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
<b><i>Future Vulnerability and Impact</i></b>	
Avalanche	No Change is Anticipated
Communicable Diseases/Pandemic	No Change is Anticipated
Dam and Levee Failure	No Change is Anticipated
Drought	Increase
Earthquake	No Change is Anticipated
Flood	Increase
Landslide	No Change is Anticipated
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 11** outlines if changes in population within CWU 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 11. Changes in Population Current and Future Vulnerability and Impact**

Hazard	Vulnerability and Impact
<b><i>Current Vulnerability and Impact</i></b>	
Avalanche	Increased
Communicable Diseases/Pandemic	Increased
Dam and Levee Failure	Remained the Same
Drought	Remained the Same
Earthquake	Increased
Flood	Remained the Same
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
<b><i>Future Vulnerability and Impact</i></b>	
Avalanche	No Change is Anticipated
Communicable Diseases/Pandemic	Increase
Dam and Levee Failure	No Change is Anticipated
Drought	No Change is Anticipated
Earthquake	Increase
Flood	No Change is Anticipated
Landslide	No Change is Anticipated
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 12** 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 12. Changes in Development Current and Future Vulnerability and Impact**

Hazard	Vulnerability and Impact
<b><i>Current Vulnerability and Impact</i></b>	
Avalanche	Remained the Same
Communicable Diseases/Pandemic	Increased
Dam and Levee Failure	Remained the Same
Drought	Increased
Earthquake	Increased
Flood	Increased
Landslide	Remained the Same
Severe Weather ( <i>thunderstorms, hail, tornado, strong winds/damaging winds, extreme temperatures</i> )	Increased
Volcanic Activity	Increased
Winter Weather ( <i>ice storms, heavy snow, blizzards</i> )	Increased
Wildfire ( <i>Wildfire Smoke</i> )	Increased
<b><i>Future Vulnerability and Impact</i></b>	
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

CWU anticipates future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan. Assets include students and faculty (including underserved and socially vulnerable populations within CWU), structures (including new and existing buildings), community lifelines and other critical facilities, CWU’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. However, CWU has identified over 20 buildings on campus that are seismically unreinforced (refer to **Table 9**).



## 10. HAZARD RISK RANKING

**Table 13** presents the local hazard ranking for Central Washington University 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 13. 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
Earthquake	2	12	16	33	61	59
Flood	2	18	11	31	60	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
Communicable Diseases / Pandemic	2	18	10	20	48	48
Thunderstorms (Severe Weather)	2	6	16	23	45	46
Cold Wave / Extreme Cold (Severe Weather)	2	12	12	20	44	45
Heat Wave / Extreme Heat (Severe Weather)	2	12	12	17	41	42
Drought	2	9	6	24	39	41
Dam and Levee Failure	1	12	11	24	47	26
Hail (Severe Weather)	1	6	16	16	38	22
Tornado (Severe Weather)	1	6	14	16	36	21
Volcanic Activity	1	12	6	15	33	20
Avalanche	1	6	6	13	25	15



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)
Landslide	1	6	6	13	25	15
<p><i>Consequence:</i> Sum of <u>all</u> weighted factors.  <i>Extent:</i> Sum of the weighted <u>Extent</u> factors.  <i>Vulnerability:</i> Sum of the weighted <u>Vulnerability</u> factors.</p> <p><i>Impact:</i> Sum of the weighted <u>Impact</u> factors.  <b>Total Risk Score*</b> = 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 – 52
High (H)	3	13 – 18	13 – 18	27 – 39	51 – 75	53 and above
<p>The <b>legend</b>—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 <b>Consequence Score</b> represents the sum of the Extent, Vulnerability, and Impact Factors. The <b>Total Risk Score</b> 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.

Central Washington University agreed upon **13** mitigation actions that apply to the jurisdiction’s properties where they have jurisdictional responsibility and authority. The University did not participate in the previous reiteration of the Kittitas County Hazard Mitigation Plan; therefore, all mitigation actions are new. A summary of the University’s mitigation actions status is listed in **Table 14**.

**Table 14. Central Washington University Mitigation Actions Summary**

Status		Mitigation Action Total	
Ongoing		0	
In Progress/In Work		0	
Not Started		0	
Delayed/Deferred		0	
New		13	
<b>TOTAL</b>		<b>13</b>	
Completed		0	
Deleted/No Longer Needed		0	
Mitigation Actions per Hazard			
Avalanche	4	Landslide	4
Dam and Levee Failure	4	Severe Weather	5
Drought	6	Volcanic Activity	3
Earthquake	5	Wildfire	7
Flood	4	Winter Weather	3

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**.



<b>Mitigation Action</b>	Develop multiple tabletop exercises focused on wildfire, earthquakes, severe weather, and volcanic activity to estimate potential losses of life and injuries, the types of potential damage, and existing vulnerabilities with the 81 buildings within the Central Washington University community. This will guide the development and implementation of future mitigation priorities.				
<b>Action Number</b>	CWU-1	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	39/40
<b>Goal(s) Addressed</b>	1, 2, 5		<b>Hazard(s) Mitigated</b>	Earthquake, Severe Weather, Wildfire	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	n/a	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Ongoing		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University Police and Public Safety Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Develop and implement a Central Washington University Community Hazard Mitigation Steering Committee to monitor the progress of the University mitigation actions outlined in the Kittitas County Hazard Mitigation Plan. The Steering Committee should include, but is not limited to, a variety of representatives from students, staff, and faculty.				
<b>Action Number</b>	CWU-2	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
<b>Project Status</b>	New		<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	Medium				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Central Washington University (Facilities Management Department)	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Long Term		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		<i>If Other, you <b>must</b> identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Partner with the local partners on a public outreach campaign, for parents and students, focused on natural hazards, their risks, and alternatives to reduce the risks and impacts within the University.				
<b>Action Number</b>	CWU-3	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
<b>Project Status</b>	New		<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	Medium				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	University Relations Department, Kittitas County Sheriff's Office (Emergency Management), National Weather Service Pendleton Forecast Office, Kittitas Valley Fire and Rescue	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Long Term		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		<i>If Other, you <b>must</b> identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Identify wildfire hazards areas within the Central Washington University planning area and assess the overall community vulnerability.				
<b>Action Number</b>	CWU-4	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Wildfire	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization (If applicable)</b>	Kittitas County Sheriff's Office (Emergency Management), Kittitas Valley Fire and Rescue	
<b>Additional Participating Jurisdictions (If applicable)</b>	n/a				
<b>Project Duration</b>	Long Term		<b>Estimated Cost</b>	Medium	
<b>Potential Funding Source</b>	Local Budgeted Funds		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority (If applicable)</b>			



<b>Mitigation Action</b>	Enhance the University's Heating, Ventilation, and Air Conditioning (HVAC) system with air scrubbers to help filter contaminants due to wildfire smoke, during the wildfire season.				
<b>Action Number</b>	CWU-5	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Wildfire	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization (If applicable)</b>	n/a	
<b>Additional Participating Jurisdictions (If applicable)</b>	n/a				
<b>Project Duration</b>	Short Term		<b>Estimated Cost</b>	Medium	
<b>Potential Funding Source</b>	Local Budgeted Funds		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority (If applicable)</b>			



<b>Mitigation Action</b>	Enhance the University's landscaping maintenance procedures based on Crime Prevention Through Environmental Design (CPTED) basic principles. CPTED is a multi-disciplinary approach to crime prevention that uses urban and architectural design and the management of built and natural environments.				
<b>Action Number</b>	CWU-6	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Severe Weather	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Central Washington University (Facilities Management Department)	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Ongoing		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Create a series of informational sessions, in partnership with Kittitas County Search and Rescue, for the Central Washington University Geology and Public Safety departments regarding avalanche and landslide history and safety while traveling or hiking in the northwestern areas of the County.				
<b>Action Number</b>	CWU-7	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4		<b>Hazard(s) Mitigated</b>	Avalanche, Landslide	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Kittitas County Search and Rescue	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	Central Washington University Geology Department, Central Washington University Public Safety Department				
<b>Project Duration</b>	Short Term		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Develop a drought Emergency Operations Plan (EOP) for Central Washington University.				
<b>Action Number</b>	CWU-8	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Drought	
<b>Project Status</b>	New		<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Central Washington University (Facilities Management Department)	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Short Term		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		<i>If Other, you <b>must</b> identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			

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<b>Mitigation Action</b>	Develop a drought Communication Plan and early warning system to facilitate timely communication of relevant information to University officials, decision-makers, emergency managers, students, and faculty.				
<b>Action Number</b>	CWU-9	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Drought	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	n/a	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Short Term		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Implement drought-tolerant landscape designs that include, but are not limited to, incorporating drought tolerant or xeriscape practices into landscape plans to reduce dependence on irrigation, incentives for xeriscape, and permeable driveways and surfaces to reduce runoff and promote groundwater recharge.				
<b>Action Number</b>	CWU-10	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Drought	
<b>Project Status</b>	New		<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Central Washington University (Facilities Management Department)	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Long Term		<b>Estimated Cost</b>	Medium	
<b>Potential Funding Source</b>	Local Budgeted Funds, HMGP, BRIC		<i>If Other, you <b>must</b> identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Develop and implement a Continuity of Operations Plan (COOP) to ensure critical University functions remain operational after an incident or disaster.				
<b>Action Number</b>	CWU-11	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>		1, 4	<b>Hazard(s) Mitigated</b>	Avalanche, Dam and Levee Failure, Drought, Earthquake, Flood, Landslide, Severe Weather, Volcanic Activity, Wildfire, Winter Weather	
<b>Project Status</b>		New	<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	Medium				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	n/a	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Short Term		<b>Estimated Cost</b>	Low	
<b>Potential Funding Source</b>	Local Budgeted Funds, HMGP, BRIC		<i>If Other, you <b>must</b> identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Install flexible tube flood barriers to mitigate damage to the areas within Central Washington University that are prone to flooding. This flood control practice will help reduce worker injuries due to traditional sandbagging techniques.				
<b>Action Number</b>	CWU-12	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5		<b>Hazard(s) Mitigated</b>	Dam and Levee Failure, Flood	
<b>Project Status</b>	New		<i>If Deleted/No Longer Needed, provide reason.</i>	n/a	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Central Washington University (Facilities Management Department)	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	n/a				
<b>Project Duration</b>	Long Term		<b>Estimated Cost</b>	High	
<b>Potential Funding Source</b>	Local Budgeted Funds, HMGP, FMA		<i>If Other, you <b>must</b> identify a funding source.</i>	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority</b> <i>(If applicable)</i>			



<b>Mitigation Action</b>	Conduct seismic evaluations of Central Washington University buildings with an architectural firm utilizing the American Society of Civil Engineers (ASCE) 31 Standard Tier 1 procedure.				
<b>Action Number</b>	CWU-13	<b>Year Initiated / Anticipated Year of Initiation</b>	2025	<b>Prioritization Score</b>	40/40
<b>Goal(s) Addressed</b>	1, 3, 4		<b>Hazard(s) Mitigated</b>	Earthquake	
<b>Project Status</b>	New	If Deleted/No Longer Needed, provide reason.		n/a	
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Central Washington University (Office of Emergency Management)		<b>Supporting Agency / Organization (If applicable)</b>	Central Washington University (Facilities Management Department)	
<b>Additional Participating Jurisdictions (If applicable)</b>	n/a				
<b>Project Duration</b>	Long Term		<b>Estimated Cost</b>	High	
<b>Potential Funding Source</b>	Local Budgeted Funds, HMGP, BRIC		If Other, you <b>must</b> identify a funding source.	n/a	
			Please provide further detail on Potential Funding Source.	University General Fund (Staff Time)	
<b>Implementation Priority</b>	High	<b>Changes in Priority (If applicable)</b>			



## APPENDIX A. HAZARD MAPS

<b>Figure 1</b>	Central Washington University Planning Area
<b>Figure 2</b>	Liquefaction Susceptibility (Earthquake) <i>Helps assess potential damage from earthquakes in the University</i>
<b>Figure 3</b>	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>
<b>Figure 4</b>	Cle Elum Dam Inundation Area Map
<b>Figure 5</b>	Keechelus and Kachees Dam Inundation Area Map
<b>Figure 6</b>	Wildfire Likelihood Map <i>Wildfire likelihood is the annual probability of wildfire burning in a specific location.</i>
<b>Figure 7</b>	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. Central Washington University Planning Area

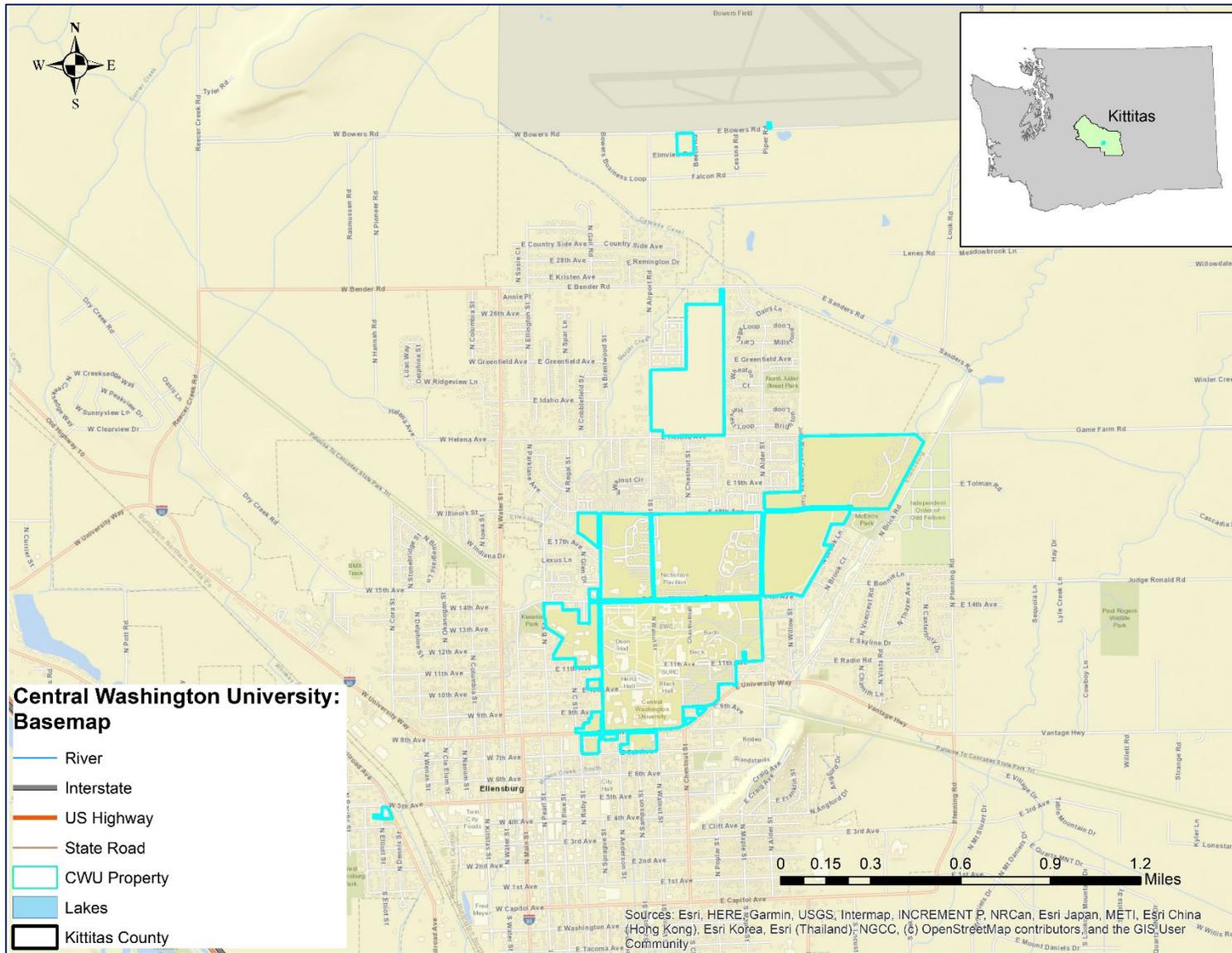








Figure 4. Cle Elum Dam Inundation Area

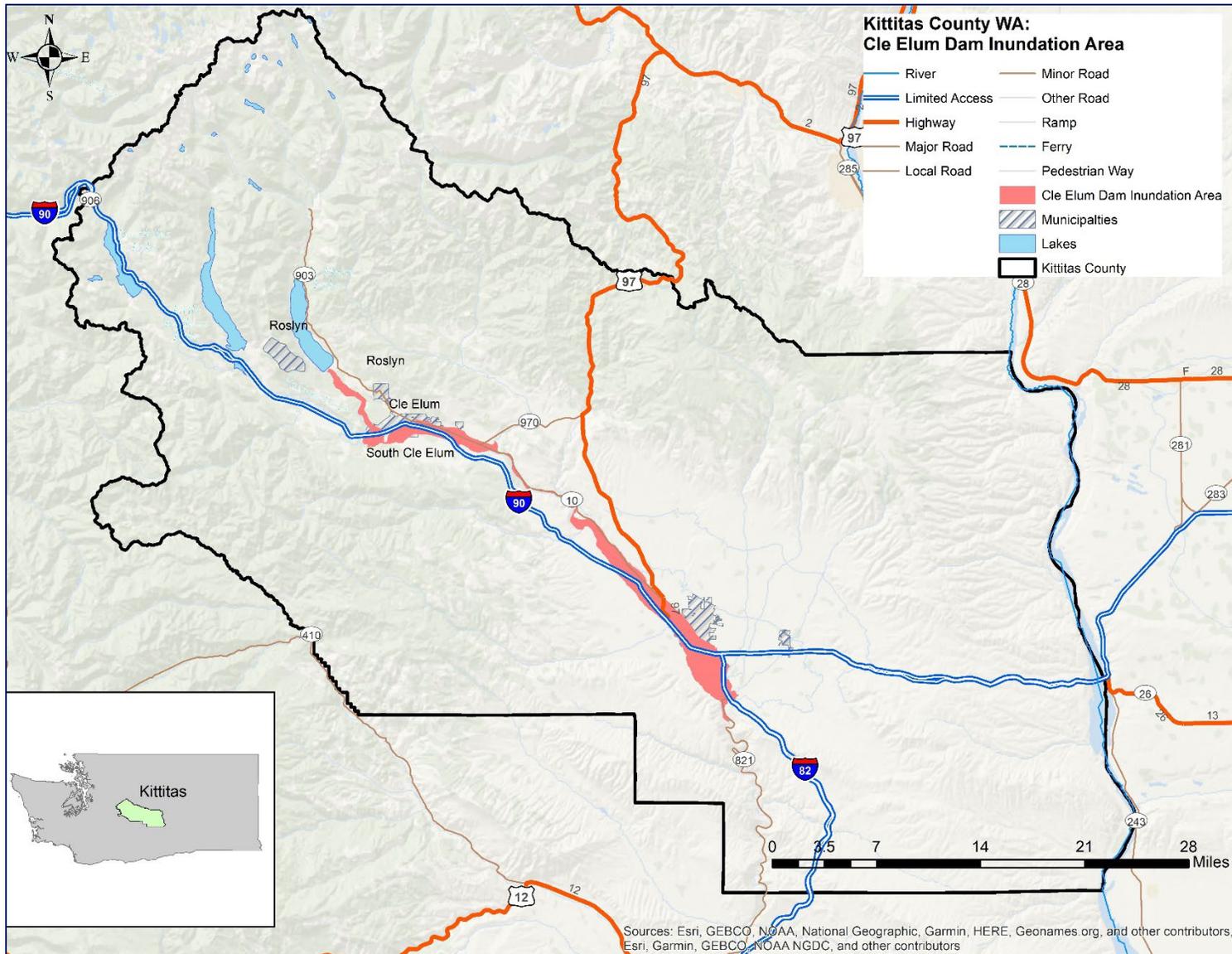




Figure 5. Keechelus and Kachees Dam Inundation Area

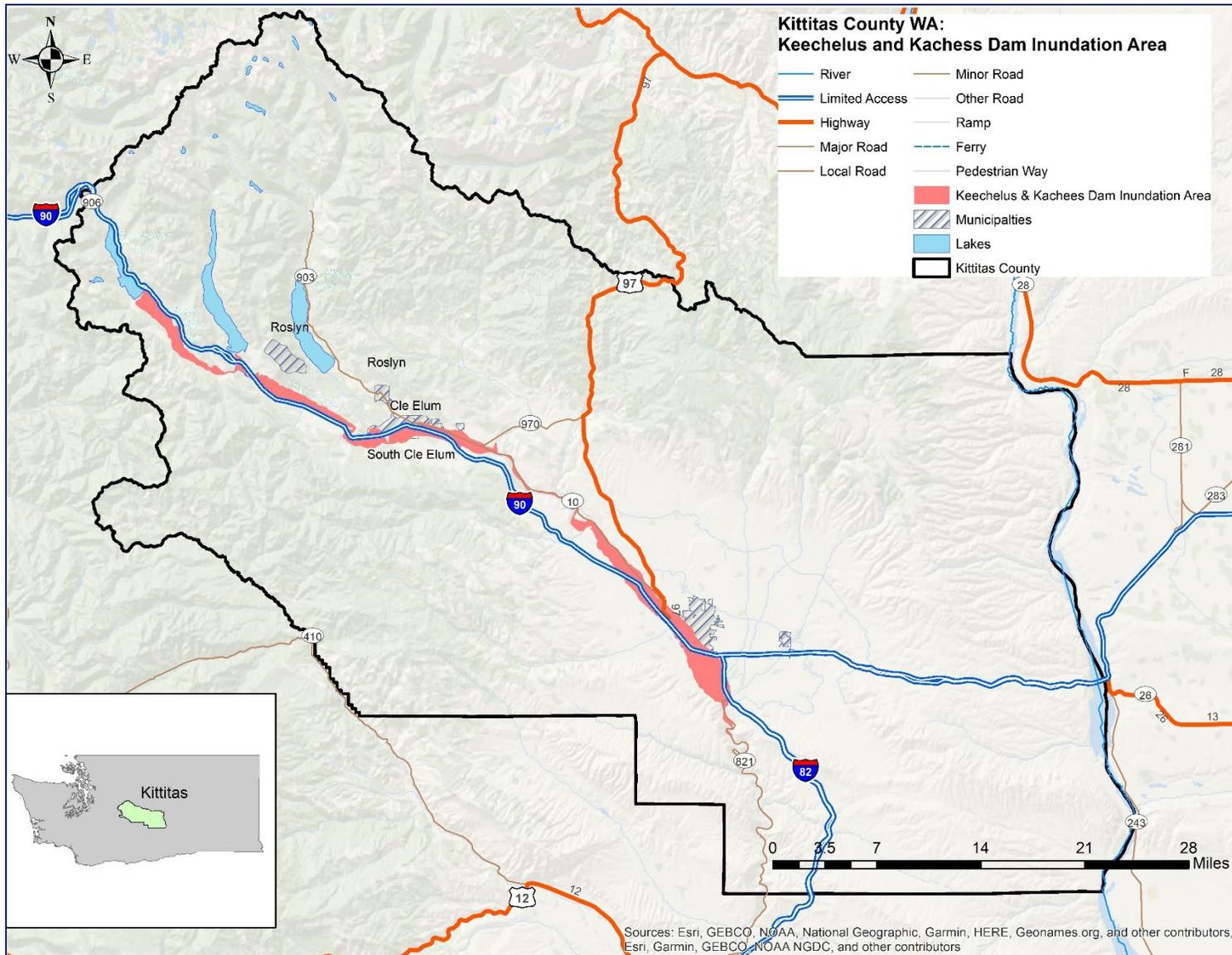




Figure 6. Wildfire Likelihood

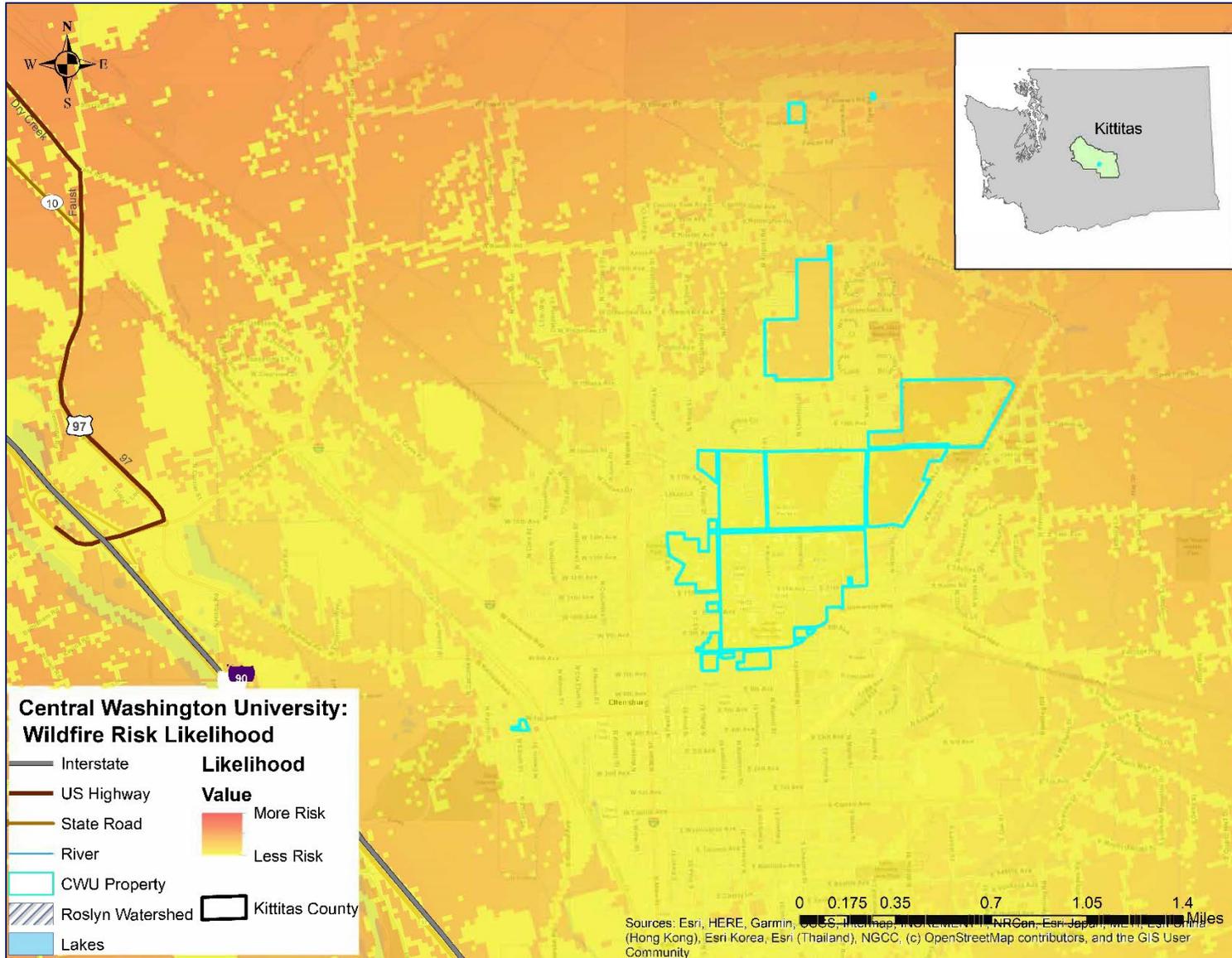
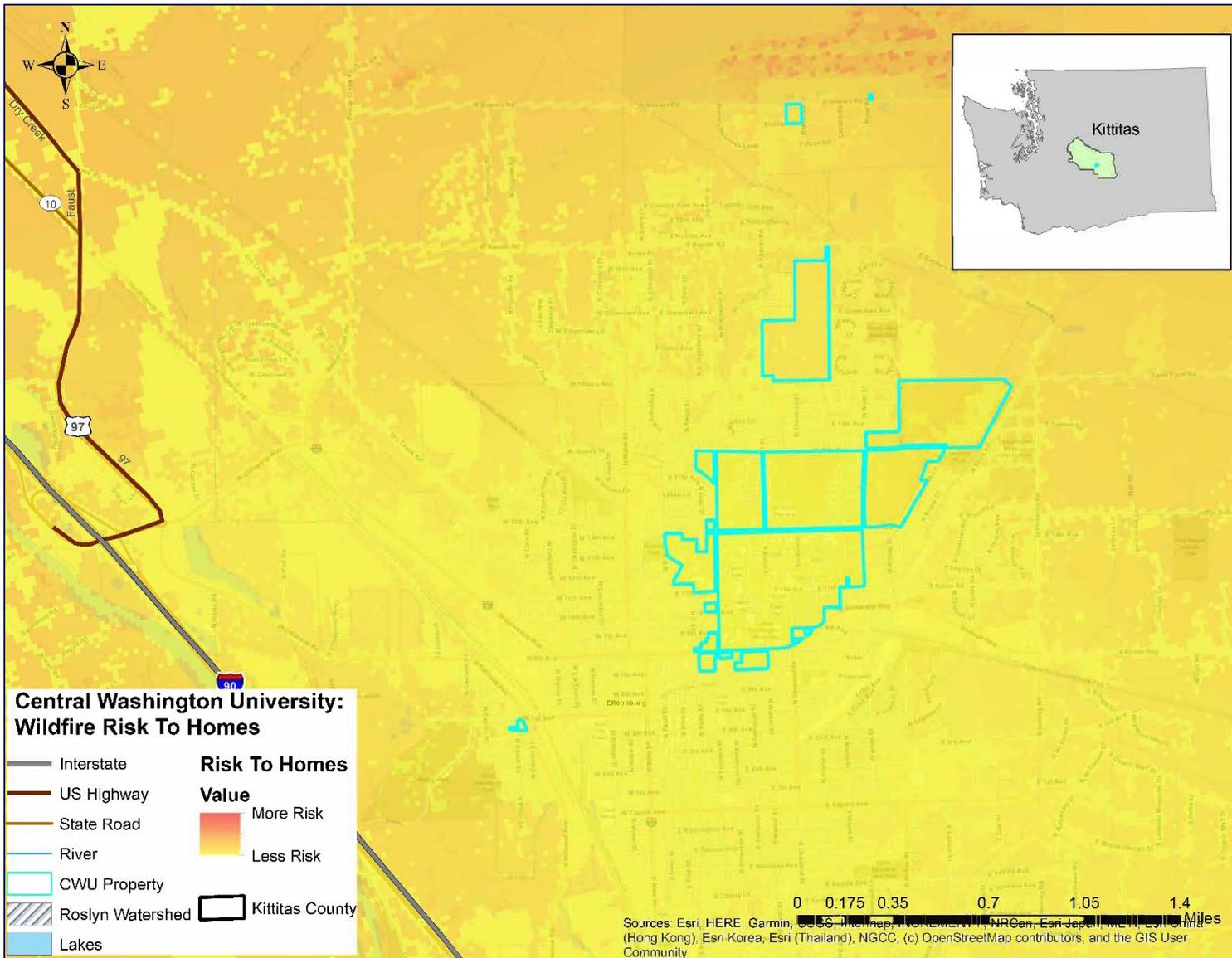




Figure 7. Wildfire Risk to Homes





## APPENDIX B. PLAN ADOPTION

*[Placeholder for adoption documentation after State and FEMA Approval]*