

JURISDICTION ANNEXES

Each jurisdiction participating in the 2022 HMP Update has an individual annex to be adopted by their respective governing bodies. Each annex details the unique hazard risks, vulnerabilities, capabilities, and mitigation strategy for the jurisdiction. Please note that the Yakima County Fire Districts are included together in one annex. Jurisdiction annexes include the following:

- **City of Granger Annex**
- **City of Grandview Annex**
- **City of Moxee Annex**
- **City of Selah Annex**
- **City of Sunnyside Annex**
- **City of Tieton Annex**
- **City of Toppenish Annex**
- **City of Union Gap Annex**
- **City of Yakima Annex**
- **Town of Harrah Annex**
- **Town of Naches Annex**
- **Yakima County Fire Districts Annex**
- **Yakima County Flood Control Zone District Annex**

Annex 1. City of Grandview

Grandview is located near the eastern border of Yakima County in south-central Washington State. Grandview is equidistant, 40 miles, from the city of Yakima and the Tri-Cities of Richland, Pasco, and Kennewick. Grandview is located along I-82, north of the Yakima River and surrounded by agricultural lands. The City’s neighbors include Sunnyside to the northwest and Prosser to the southeast, both along I-82. As of the 2020 Census, the City’s population was 11,075. Grandview encompasses about 6.3 square miles.

Hazard Identification and Risk Assessment

Representatives of the City of Grandview actively participated in the 2022 HMP Update as members of the planning committee. In addition to the countywide risk assessment, the City of Grandview identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in **Table 1-A** below. In the context of the countywide planning area, there are no hazards that are unique to the City of Grandview. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 1-A. Hazard Identification and Risk Assessment – City of Grandview		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Grandview Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	Low
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Low
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Weather	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Grandview Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	Low
Hazardous Materials Incident	High	High
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

Both Flood and Dam/Levee Failure risk levels are lower for Grandview than Yakima County as a whole, given the higher elevation of the city and location outside of both the 100-year floodplain and any mapped dam inundation areas. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** The City of Grandview is located outside of the identified avalanche hazard area and is not located along a transportation corridor that may be disrupted from a significant incident.
- **Drought:** Drought can impact the entirety of Yakima County, including Grandview. Irrigation water sources are split between city-owned wells and the Sunnyside Valley Irrigation District (Sunnyside Canal). The Grandview Municipal Code includes a provision for water conservation measures during a drought declaration, which has not been implemented since the 1990's.
- **Earthquake:** The seismic risk for Grandview is consistent with all of Yakima County. There are no active fault lines within or surrounding Grandview. The city's downtown core would be vulnerable to a significant earthquake event, given the age of most buildings. Critical facilities in Grandview, including water and wastewater, are built to current seismic standards.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Grandview. Grandview has two assisted living facilities – The Orchards and Grandview Assisted Living – who's residents may be more vulnerable to extreme heat events. There are also several group homes in the city and a large elderly population that are considered vulnerable. Extreme temperatures are expected to have an impact on the local agricultural industry if they are long duration or particularly severe.
- **Flood:** Grandview does not have any land located within the 100-year floodplain. The Euclid Lift Station, part of the City's wastewater treatment system, was at risk to flooding during the 1996 flooding event. The facility did not ultimately flood, but flooding at the facility could cause significant disruptions to the wastewater infrastructure. As noted above, the Sunnyside Canal is a potential source of flooding if it were to fail or be otherwise compromised.
- **Landslide:** Grandview has a low susceptibility and low incidence of landslides. There is no history of landslides or other geologic hazards in Grandview.
- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Grandview. There is some historic record of severe storms in the areas surrounding Grandview (including hail and wind events), but no specific damages within city limits. Vulnerable populations are noted above under the Extreme Temperatures hazard.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Grandview. Heavy snow fall in 2001 caused some property damage, including collapsed roofs. Most critical facilities in Grandview are prepared with back-up power sources, including the fire station and police station, as well as some wells and lift stations. Grandview has identified the need for back-up power at several additional well sites, as well as local sheltering facilities. Vulnerable populations are noted above under the Extreme Temperatures hazard.

- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Grandview. The city is not located within the Mt. Adams volcano hazard zone.
- **Wildfire:** Grandview does not have a higher wildfire hazard potential than other Yakima County communities. Large fires have burned in the Rattlesnake Hills north of the city, including the 2016 Range 12 fire. Due to its location on I-82, Grandview experiences limited impacts from transportation disruptions from wildfires. Grandview owns a wastewater facility site, about 1,000 acres of land, just south of the city. The facility is mostly surrounded by wildland, including sagebrush and grasses. In July 2022, about 500 acres of the property burned after a wildland fire jumped over the Yakima River. At the time of plan development, the City estimated approximately \$1 million in insurance claims. The Grandview Fire Department is still assessing potential mitigation actions, but there is a need to increased preparedness planning to protect the site, increase fire breaks, and potentially secure specialized firefighting resources to mitigate wildfire damages in the future.
- **Dam/Levee Failure:** Grandview is not located directly within the inundation area of any dams.
- **Hazardous Materials:** Grandview is at risk from hazardous materials traveling on I-82 and on the Burlington Northern Railroad, both of which pass through the city. Grandview experienced a fire in the early 2000's at the Wilbur-Ellis Site that closed I-82 for approximately 24 hours and required nearby evacuations. The Wilbur-Ellis site is one of two large suppliers of agricultural chemicals and fertilizers. Grandview is also home to several cold storage warehouses that are known to store anhydrous ammonia. Grandview experiences occasional hazardous materials releases from fixed facilities as well as from agricultural transportation along local roadways.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Grandview last updated its Comprehensive Plan in 2016, and the municipal code was last updated and adopted in November 2021. **Table 1-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Grandview.

Table 1-B. City of Grandview Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 15 of the Grandview Municipal Code establishes building and construction codes and regulations. Grandview has adopted the 2015 International Building Code.
Zoning	Yes			Title 17 of the Grandview Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 18 of the Grandview Municipal Code adopts the Yakima County Critical Areas Ordinance, which establishes standards for Frequently Flooded Areas and Geologically Hazardous Areas.
Subdivisions	Yes			Title 16 of the Grandview Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Stormwater management and standards are addressed within Title 18 as part of the Critical Areas Ordinance.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Some public safety and health ordinances are included in Title 8 of the Grandview Municipal Code. Title 2 establishes police and fire department authorities.
Environmental Protection	Yes			Grandview adopted a Critical Areas Ordinance which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas

Table 1-B. City of Grandview Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
				subject to certain hazards, and other environmentally sensitive lands.
Planning Documents				
Comprehensive	Yes			Grandview last updated its Comprehensive Plan in 2016.
Environmental Protection	Yes			Grandview is in the process of updating the Water and Sewer Comprehensive Plan.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
Response/Recovery Planning				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Grandview is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Grandview is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	Grandview is represented within the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			The City of Grandview last updated its COOP more than five years ago and does not have a Continuity of Government Plan.

Administrative and Technical Capabilities

Grandview has a full-time City Administrator who manages the Public Works Department. The Grandview Police Department and Grandview Fire Department co-lead emergency operations for the city. Outside of these three positions, hazard mitigation administrative and technical capabilities are supported by contracted services as well as the Yakima Valley Council of Governments and Yakima County departments.

Table 1-C. City of Grandview Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Yakima Valley Council of Governments; Contracted Services
Engineers or professionals trained in building or infrastructure construction	Yes	Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	Shared responsibility of the Fire Chief and Police Chief, supported through Yakima Valley Emergency Management
Floodplain manager	No	
Grant writers	Yes	Yakima Valley Council of Governments; Contracted Services
Other		

National Flood Insurance Program

The City of Grandview participates in the National Flood Insurance Program (NFIP) (CID #530218) and the last FIRM map for the area was issued on 11/18/2009 ([FEMA, 2022](#)). The City of Grandview does not currently participate in the Community Rating System (CRS) program. **Table 1-D** describes floodplain management capabilities and NFIP program compliance for Grandview.

Table 1-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Public Works Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS	No

Table 1-D. National Flood Insurance Program Compliance and Capabilities	
Classification? If not, is your jurisdiction interested in joining the CRS program?	

Mitigation Strategy

The City of Grandview identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Grandview is included as either the coordinating agency or a partner agency on the actions listed in **Table 1-E**. The complete 2022 Hazard Mitigation Strategy is included as **Appendix E** to the base plan.

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners. Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH
39	Flooding	Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH
46	Wildfire	Implement wildfire protection measures around the city's wastewater facilities to reduce risk, including fire breaks, planning for protective measures, and equipment purchases.	Grandview Fire Department Yakima County Fire District #5	City of Grandview	MODERATE
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	HIGH
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies, private property owners, businesses, and schools.	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Table 1-E. City of Grandview 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 2. City of Granger

The City of Granger is located along the Lower Yakima River on the west side of I-82. Its neighboring cities include Zillah and Sunnyside along I-82. As of the 2020 Census, the City’s population was 3,806. Granger encompasses about 1.8 square miles.

Hazard Identification and Risk Assessment

Representatives of the City of Granger actively participated in the 2022 HMP Update as members of the planning committee. In addition to the countywide risk assessment, the City of Granger identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in **Table 2-A** below. In the context of the countywide planning area, there are no hazards that are unique to the City of Granger. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 2-A. Hazard Identification and Risk Assessment – City of Granger		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Granger Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	High
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Low
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Weather	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Granger Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	High
Hazardous Materials Incident	High	High
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

Granger has a lower risk of landslides and other geologic hazards than Yakima County as a whole, given its distance from major ridgelines or mountains. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** The City of Granger is located outside of the identified avalanche hazard area and is not located along one of the main transportation corridors that may be disrupted from a significant incident.
- **Drought:** Drought can impact the entirety of Yakima County, including Granger. There are some local concerns over adequate water rights during a severe drought, as well as misuse of limited water resources given the lack of a water provisioning ordinance. Granger relies on a system of wells for drinking water, which may be impacted by reduced recharge in area aquifers. According to Granger's most recent Water System Plan, improvements are needed to waterlines, as well as permanent standby power equipment at their primary well site and upper zone booster station.
- **Earthquake:** The seismic risk for Granger is consistent with all of Yakima County. There are no active fault lines within or surrounding Granger. The city is in the midst of a multi-year project to improve the drinking water system, which would not sustain significant groundshaking. The water line upgrade program has been ongoing for six years and will improve the system's resiliency. The City of Granger is at risk of isolation during an earthquake given the number of bridges connecting ingress/egress routes, including SR-223 from Toppenish and I-82.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Granger.
- **Flood:** The very southern section of Granger is located in the 100-year floodplain along the Lower Yakima River. There are very few buildings located in the floodplain. The ponds serving the wastewater treatment plant at Hisey Park are subject to raising along with the Yakima River, creating some flooding in the area, as well as erosion to nearby walking trails. Significant flooding in this area could impact SR-223, a main ingress/egress route for the city.
- **Landslide:** Granger has moderate susceptibility and low incidence of landslides. There is no history of landslides or other geologic hazards in Granger.
- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Granger. There is some historic record of severe storms in the areas surrounding Granger (including hail and wind events), but no specific damages within city limits. In recent years, Granger has experienced some downed trees and short-duration power outages due to severe weather. Most critical facilities have back-up power sources, except for the emergency shelters and some water and wastewater infrastructure.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Granger. The city is vulnerable to road closures due to dangerous ice and snow conditions, including I-82 which sees frequent crashes, as well as SR-223.
- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Granger. The city is not located within the Mt. Adams volcano hazard zone.

- **Wildfire:** Granger does not have a higher wildfire hazard potential than other Yakima County communities. Large fires have burned on the Toppenish Ridge south of the city, including the 2016 Tule #6 fire. Fires are common on US-97, and highway closures can cause some disruption. Due to its location on I-82, Granger experiences limited impacts from transportation disruptions.
- **Cyber Threat/Attack:** While Granger does not have direct experience with a cyberattack, it is of growing concern locally. There is a need to better understand the potential vulnerability of critical infrastructure systems, including water and wastewater, to a cyberattack.
- **Dam/Levee Failure:** Granger is located within the Sunnyside Dam inundation area and would be impacted by dam-related flooding along the Lower Yakima River. The Cle Elum and Tieton dams are expected to impact the Lower Yakima.
- **Hazardous Materials:** Granger is at risk from hazardous materials traveling on I-82, SR-223, and on the Burlington Northern Railroad, all of which pass through the city. There are limited fixed facilities of concern within Granger, but nearby incidents in Zillah and Sunnyside have led to alert and warnings locally. Some facilities of concern may include Cargill and fuel storage facilities.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Granger last updated its Comprehensive Plan in 2017, and the municipal code was last updated and adopted in March 2022. **Table 2-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Granger.

Table 2-B. City of Granger Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 15 of the Granger Municipal Code establishes building and construction codes and regulations. Granger has adopted the 2018 International Building Code.
Zoning	Yes			Title 18 of the Granger Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 16 of the Granger Municipal Code adopts the Yakima County Critical Areas Ordinance, which establishes standards for Frequently Flooded Areas and Geologically Hazardous Areas.
Subdivisions	Yes			Title 17 of the Granger Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Stormwater management and standards are addressed within Title 16 as part of the Critical Areas Ordinance.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Some public safety and health ordinances are included in Title 8 of the Granger Municipal Code.
Environmental Protection	Yes			Granger adopted a Critical Areas Ordinance which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.
<i>Planning Documents</i>				

Table 2-B. City of Granger Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
Comprehensive	Yes			Granger last updated its Comprehensive Plan in 2017.
Environmental Protection	Yes			Granger participates in local and county-wide planning as relevant.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
Response/Recovery Planning				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Granger is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Granger is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	Granger is represented through Yakima County Fire District #5 in the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			The City of Granger does not have a COOP or Continuity of Government Plan in place currently.

Administrative and Technical Capabilities

Granger is governed by a Mayor and City Council, and includes several municipal departments – administration, fire, parks and recreation, police, and public works. Hazard mitigation projects are primarily to responsibility of the Public Works Department and the Mayor, who is a part of the Yakima Valley Emergency Management Board.

Table 2-C. City of Granger Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Yakima Valley Council of Governments
Engineers or professionals trained in building or infrastructure construction	Yes	Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	Shared responsibility of the Fire Chief and Police Chief, supported through Yakima Valley Emergency Management
Floodplain manager	No	
Grant writers	Yes	Contracted Services; Mayor and Department Directors
Other		

National Flood Insurance Program

The City of Granger participates in the National Flood Insurance Program (NFIP) (CID #530219) and the last FIRM map for the area was issued on 11/18/2009 ([FEMA, 2022](#)). The City of Granger does not currently participate in the Community Rating System (CRS) program.

Table 2-D describes floodplain management capabilities and NFIP program compliance for Granger.

Table 2-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Public Works Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS	No

Classification? If not, is your jurisdiction interested in joining the CRS program?	
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Mitigation Strategy

The City of Granger identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Granger is included as either the coordinating agency or a partner agency on the actions listed in **Table 2-E**. The complete 2022 Hazard Mitigation Strategy is included as **Appendix E** to the base plan.

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
5	Cyber Threat/Attack	Conduct a vulnerability assessment of critical infrastructure to a cyber threat/attack.	City of Granger	Yakima County IT, contracted IT services, Yakima Valley Emergency Management	MODERATE

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
16	Earthquake	Continue water line system improvements to ensure the resiliency of city drinking water infrastructure.	City of Granger		MODERATE
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH
39	Flooding	Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County,	MODERATE

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	HIGH
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies, private property owners, businesses, and schools.	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Table 2-E. City of Granger 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 3. City of Moxee

The City of Moxee is located about five miles southeast of Yakima at the eastern border of Yakima County. Moxee is located along SR-24 connecting Yakima County communities with the neighboring Tri-Cities of Richland, Pasco, and Kennewich in Benton County. The City of Moxee is located in the fertile Moxee Valley on a relatively flat portion to the east of the Yakima River floodplain. Moxee is situated between Yakima Ridge to the north and Rattlesnake Hills to the south. The Yakima River lies approximately four miles to the west of the city. As of the 2020 Census, Moxee’s population was 4,111. Moxee encompasses about 2.4 square miles.

Hazard Identification and Risk Assessment

A representative of the City of Moxee actively participated in the 2022 HMP Update as member of the planning committee. In addition to the countywide risk assessment, the City of Moxee identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in Table 3-A below. In the context of the countywide planning area, there are no hazards that are unique to the City of Moxee. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 3-A. Hazard Identification and Risk Assessment – City of Moxee		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Moxee Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	Low
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Low
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Storm	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human Hazards	2022 Countywide Risk Ranking	2022 City of Moxee Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	Low
Hazardous Materials Incident	High	Medium
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

Both Flood and Dam/Levee Failure risk levels are lower for Moxee than Yakima County as a whole, given the location outside of both the 100-year floodplain and any mapped dam inundation areas. Moxee is the only Yakima County community with an elevated risk of a Nuclear/Radiological Incident as it is the closest city to the Hanford Site, and would be the first city receiving evacuees in the case of an incident. Landslide risk in Moxee is also lower than the county as a whole. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** Moxee is located outside of the identified avalanche hazard area and is not along a transportation corridor that may be disrupted from a significant incident.
- **Drought:** Drought can impact the entirety of Yakima County, including Moxee. Agricultural products make up a significant portion of Moxee's local economy, which may be vulnerable to prolonged drought conditions. The aquifer that provides the area's essential groundwater is losing re-charge capacity, reducing the amount of available water. In 2019, Moxee completed emergency replacement of a well site. A suspected reason for the well site's failure is drought. Moxee allocated its American Rescue Plan Act funding for additional water storage, and is participating in a feasibility study for an aquifer recharge program through the Washington Dept. of Ecology. Additionally, the city's wells are vulnerable to a loss of power due to a lack of emergency generators.
- **Earthquake:** Seismic risk is slightly higher for Moxee compared to neighboring communities, as there are several small active faults through Union Gap to the west. Moxee does not have a record of historic earthquake damages. Emergency services facilities, including the police station and fire station, are built to modern seismic standards, but the City Hall building may be vulnerable.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Moxee. The city has a significant elderly population living in private residences who may be vulnerable to extreme heat due to isolation. Like the rest of the county, agricultural resources and the broader economy are vulnerable to unseasonable and long-duration extreme temperatures.
- **Flood:** Moxee is located several miles east of the Yakima River and has no land within the Special Flood Hazard Area. There is the potential for flooding from the Moxee Drain, a natural drain running through the city, due to seasonal snowmelt. Moxee has not experienced any localized flooding since the 1996 winter flooding event that impacted the entire county.
- **Landslide:** Moxee has low susceptibility and low incidence of landslides. There is no history of landslides or other geologic hazards in Moxee.
- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Moxee. There is some historic record of severe storms in the areas surrounding Moxee (including hail and wind events), but no specific damages within city limits. In recent years, the city has experienced downed trees from wind events that closed local roadways and caused damage to residences and cars. SR-24 is subject to closures east of Moxee due to dust storms.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Moxee. Moxee does not have recent experience with long-duration power outages, but its critical facilities are not typically equipped with back-up power,

including the police station and wells (as noted above). Moxee is vulnerable to any severe weather that closes SR-24, which is the main connector to other cities in Yakima County as well as Benton County to the east. Many residents commute between cities along SR-24.

- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Moxee. Moxee is not located within the Mt. Adams hazard zone.
- **Wildfire:** Moxee does not have a higher wildfire hazard potential than other Yakima County communities and would be similarly impacted by smoke and poor air quality. As noted above, closures of SR-24 can significantly impact Moxee, and the highway has closed due to wildfires almost every year in recent history. Air quality is a growing concern, and the city is in the process of identifying a formal clean air shelter and emergency shelter for all-hazards incidents. Much of the wildland areas east of Moxee are uninhabited scrub brush which is allowed to burn without fire suppression until it approaches properties. Much of this area is not a part of a county fire district. Wildland fires in this area can burn quickly and interrupt commuter traffic on SR-24 and economic productivity from fruit processing facilities and agricultural areas.
- **Dam/Levee Failure:** Moxee is not located in any dam inundation areas. As noted above, localized flooding can sometimes occur from irrigation canals and ditches managed by the local irrigation district. There is a large levee running along the SR-24 bridge into Yakima that would cause significant impacts if it were to fail.
- **Hazardous Materials:** Moxee is at a comparable risk to hazardous materials incidents than the rest of Yakima County's communities. Transport-related incidents could occur on SR-24 as well as along the railway passing through the city. The city also experiences a significant level of traveling farm equipment that causes some transportation safety concerns. Moxee has a centralized industrial area where there are fixed facilities of concern related to agricultural production, including agricultural chemicals, apple warehousing and production, and fuel storage.
- **Nuclear/Radiological Incident:** SR-24 connects Moxee with the Hanford Site in Benton County. Moxee is the first city outside of the 50-mile radius of the site. If there was an incident at the Hanford Site, evacuees would reach Moxee first, requiring mass care services and resources. Additionally, agricultural products in the area may be put under embargo, significantly impacting the local and regional economy.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Moxee last adopted its Comprehensive Plan in 2017. Table 3-B lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Moxee.

Table 3-B. City of Moxee Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 15 of the Moxee Municipal Code establishes building and construction codes and regulations. Moxee last updated the 2018 International Building Code.
Zoning	Yes			Title 16 of the Moxee Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 16 is inclusive of the Critical Areas Ordinance, which establishes standards for Flood Hazard Areas and Geologically Hazardous Areas.
Subdivisions	Yes			Title 16 of the Moxee Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Title 13 of the Stormwater Municipal Code establishes standards for construction to ensure stormwater management and control.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Title 8 of the Moxee Municipal Code includes some public health and safety elements.
Environmental Protection	Yes			Moxee adopted the Yakima County Critical Areas Ordinance, which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.
<i>Planning Documents</i>				

Table 3-B. City of Moxee Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
Comprehensive	Yes			Moxee last updated its Comprehensive Plan in 2017.
Environmental Protection	Yes			Moxee participates in county-wide and regional environmental protection planning as staff capacity allows.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
Response/Recovery Planning				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Moxee is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Moxee is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	The City of Moxee is represented by Yakima County Fire District #4 within the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			Moxee does not have a COOP or Continuity of Government Plan in place currently.

Administrative and Technical Capabilities

Moxee has 3.5 administrative staff, including the City Supervisor, Clerk, Deputy Clerk, and a part time administrative position. Additional public employees include the Public Works Department (4 staff) and Police Department (6 staff and volunteers). The City Supervisor leads emergency operations and planning for the city. Outside of these positions, hazard mitigation administrative and technical capabilities are supported through contracted services and Yakima County departments. Moxee has an agreement with neighboring Terrace Heights for wastewater and solid waste services.

Table 3-C. City of Moxee Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Contracted Services
Engineers or professionals trained in building or infrastructure construction	Yes	The City Supervisor supports plan and building inspections
Planners or engineers with an understanding of natural hazards	Yes	Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	Responsibility of the City Supervisor, supported through Yakima Valley Emergency Management
Floodplain manager	No	
Grant writers	Yes	Contracted Services, City Supervisor, and Department Heads
Other		

National Flood Insurance Program

The City of Moxee does not currently participate in the National Flood Insurance Program or the Community Rating System program.

Mitigation Strategy

The City of Moxee identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Moxee is included as either the coordinating agency or a partner agency on the actions listed in Table 3-D. The complete 2022 Hazard Mitigation Strategy is included as [Appendix E](#) to the base plan.

Table 3-D. City of Moxee 2022 Hazard Mitigation Strategy					
Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
12	Drought	Complete a feasibility study for an aquifer recharge program to	City of Moxee	Washington Dept. of Ecology	HIGH

Table 3-D. City of Moxee 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
13	Drought Earthquake Severe Weather Severe Winter Weather	Identify mitigation actions for drought risk reduction. Secure additional funding to build a second well for the town water supply to ensure redundancy.	Town of Harrah Public Works	Yakima Valley Office of Emergency Management	HIGH
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE

Table 3-D. City of Moxee 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH

Table 3-D. City of Moxee 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County,	MODERATE
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	HIGH
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies, private property owners, businesses, and schools.	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Table 3-D. City of Moxee 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 4. City of Selah

The City of Selah is located just north of the City of Yakima, just north of the junction of Highway 12 and I-82, as well as the confluence of the Yakima River and Naches River. Selah is a predominantly agricultural services community, home to several large apple processing and manufacturing facilities. Selah has several major transportation routes passing through the city that, along with the orchards of surrounding valley, support the regional agricultural economy. As of the 2020 Census, Selah's population was 7,957.

Hazard Identification and Risk Assessment

A representative of the City of Selah actively participated in the 2022 HMP Update as member of the planning committee. In addition to the countywide risk assessment, the City of Selah identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in **Table 4-A** below. In the context of the countywide planning area, there are no hazards that are unique to the City of Selah. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 4-A. Hazard Identification and Risk Assessment – City of Selah		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Selah Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	High
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Medium
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Storm	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Selah Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	High
Hazardous Materials Incident	High	High
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

Given the City of Selah's concentration of agricultural production and warehousing facilities, as well as location at the confluence of both major transportation corridors, the city is at higher risk to hazardous materials releases than the county as a whole. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** Selah is not located within the avalanche hazard area and does not have a history of avalanches impacting the city. Selah is located along Highway 12, which can be closed due to avalanches further west. A long duration closure of Highway 12 could affect residents and businesses. SR-410 and SR-821 are also routes of concern and are often closed due to poor travel and weather conditions.
- **Drought:** Drought can impact the entirety of Yakima County, including Selah. Agricultural products make up a significant portion of Selah's local economy, which may be vulnerable to prolonged drought conditions. Adequate water for irrigation is a continued concern, including orchards around the city.
- **Earthquake:** The seismic risk for Selah is consistent with all of Yakima County. There are no active faults that run through Selah and no record of historic earthquake damages. Selah's downtown district, wastewater infrastructure, and the Selah Civic Center are most vulnerable to a significant earthquake. The water system is well-prepared with bypass trailers and pumps. Selah Civic Center is designated as an emergency shelter but would not withstand a major earthquake and does not currently have adequate, accessible shower facilities. Most of the critical facilities in the community have back-up power, including the fire station, police station, and water infrastructure.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Selah. Some community members, including the elderly population, may be more vulnerable to extreme weather events.
- **Flood:** Sections of Selah along its eastern boundary are located within the 100-year floodplain of the Upper Yakima River. Most of the floodplain is made up of open space, including a golf course. The floodplain does encompass SR-823 entering the city from I-82. Several fruit warehouse facilities are in the floodplain along the railroad. Some localized flooding of streets and properties has occurred due to irrigation facilities.
- **Landslide:** Selah has low susceptibility and low incidence of landslides. Major transportation corridors north of the city, including US-12, SR-410, and SR-821 may be impacted by landslides or similar incidents. While these routes are not directly within Selah, they can disrupt primary transportation corridors and the local supply chain.
- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Selah. There is some historic record of severe storms in the areas surrounding Selah (including hail and wind events), but no specific damages within city limits outside of downed trees.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Selah. Some primary transportation corridors may be closed during severe winter storms given their steep grade. There is one assisted living and memory care facility and a state residential facility whose residents would be vulnerable to a long-duration power outage.

- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Selah. Selah is not located within the Mt. Adams volcano hazard zone.
- **Wildfire:** A significant amount of Wildland-Urban Interface (WUI) is present within and surrounding Selah, including unincorporated communities north of the city within the Wenas Valley. Given the irrigation system supporting orchards in the valley, Selah is somewhat protected from encroaching wildfires. Large fires, including the 2020 Evans Canyon Fire, have burned directly north of Selah along the border with Kittitas County. Selah often receives evacuees in its emergency shelters and experiences road closures, including Highway 12, due to wildfires in the area. Selah does not have any critical facilities located in the WUI and participates in the Wildfire Ready Neighbors program to improve readiness.
- **Dam/Levee Failure:** Selah, along the Upper Yakima River, is located in the inundation area for the Cle Elum Dam, Keechelus Dam, and Roza Dam. The dams are operated by the U.S. Bureau of Land Reclamation and considered High Hazard Potential dams, with a class rating of 1A by the Washington Department of Ecology, indicating more than 300 lives are at risk due to failure.
- **Hazardous Materials:** Given Selah's location along several major transportation corridors, including the Burlington Northern Railroad, the city is at increased risk to a transportation-based hazardous materials release. Additionally, the apple warehouses and processing facilities in and around town store large amounts of chemicals including ammonia. Typically, prevailing winds move away from the city, but the Public Works Department is located downwind from most fixed facilities, and employees may need to shelter-in-place for some certain incidents, impeding response.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Selah last adopted its municipal code in November 2021 and its Comprehensive Plan in 2017. **Table 4-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Selah.

Table 4-B. City of Selah Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 11 of the Selah Municipal Code establishes building and construction codes and regulations. Selah has adopted the 2018 International Building Code.
Zoning	Yes			Title 10 of the Selah Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 11 is inclusive of the Critical Areas Ordinance, which establishes standards for Frequently Flooded Areas and Geologically Hazardous Areas. Selah also adopted the 2018 Wildland Urban Interface (WUI) Code.
Subdivisions	Yes			Title 10 of the Selah Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Title 9 of the Selah Municipal Code establishes stormwater management requirements for development and redevelopment.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Title 1 of the Selah Municipal Code establishes some relevant public safety standards, including adopting the Emergency Operations Plan.
Environmental Protection	Yes			Selah adopted a Critical Areas Ordinance which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.

Table 4-B. City of Selah Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Planning Documents</i>				
Comprehensive	Yes			The City of Selah last updated its Comprehensive Plan in 2017.
Environmental Protection	Yes			Selah is a participant in the Yakima Basin Integrated Plan.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
<i>Response/Recovery Planning</i>				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Selah is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Selah has its own Emergency Operations Plan and is included in various emergency action plans for area dams, the railroad corridor, and air terminal pipeline.
Community Wildfire Protection Plan (CWPP)			Yes	The City of Selah is represented within the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			The City of Selah does not have a COOP or Continuity of Government Plan in place.

Administrative and Technical Capabilities

Selah has a small municipal structure, including administration, public works, police, fire, planning, parks and recreation, public transit, and local utilities. Hazard mitigation projects are mainly the responsibility of the Public Works Department, City Administrator, and Fire Department. Selah works closely with Yakima Valley Emergency Management to support local emergency planning and grantwriting.

Table 4-C. City of Selah Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Planning staff member and City Administrator; Contracted Services
Engineers or professionals trained in building or infrastructure construction	Yes	Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Planning staff member and City Administrator
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS; Contracted Services
Emergency manager	Yes	Responsibility of the Fire Chief, supported through Yakima Valley Emergency Management
Floodplain manager	No	
Grant writers	Yes	Department Heads; Contracted Services
Other		

National Flood Insurance Program

The City of Selah participates in the National Flood Insurance Program (NFIP) (CID #530226D) and the last FIRM map for the area was issued on 10/21/2021 ([FEMA, 2022](#)). The City of Selah does not currently participate in the Community Rating System (CRS) program. Table 4-D describes floodplain management capabilities and NFIP program compliance for Selah.

Table 4-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Public Works Director
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No

Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No

Mitigation Strategy

The City of Selah identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Selah is included as either the coordinating agency or a partner agency on the actions listed in **Table 4-E**. The complete 2022 Hazard Mitigation Strategy is included as **Appendix E** to the base plan.

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
1	Avalanche Hazardous Materials Landslide/Erosion Severe Winter Storms	Improve alert and warning coordination and procedures to ensure travelers, visitors, and residents are aware of hazards and increased risk along roadways.	Yakima Valley Office of Emergency Management	Washington DOT, City of Selah, City of Tieton, Town of Naches	HIGH
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
6	Cyber Threat/Attack	Expand regular self-phishing and testing programs for City of Selah and City of Union Gap IT networks.	City of Yakima Information Technology	City of Selah, City of Union Gap	HIGH

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
17	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to ensure accessible facilities for long-duration emergency sheltering at the Selah Civic Center.	City of Selah	Yakima Valley Emergency Management	HIGH
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH
33	Flooding	Implement strategies to improve stormwater drainage system capacity as outlined in the Yakima County Comprehensive Stormwater Management Program (2022), and City of Yakima Stormwater Management Program (2022).	Yakima County Regional Stormwater Working Group	City of Yakima, City of Selah, City of Union Gap, City of Sunnyside, Yakima County	MODERATE

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH
39	Flooding	Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County,	MODERATE
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	HIGH

Table 4-E. City of Selah 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies, private property owners, businesses, and schools.	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 5. City of Sunnyside

Sunnyside is located in eastern Yakima County near the border with Benton County in south central Washington. Sunnyside is located along I-82, three miles north of the Yakima River and surrounded by agricultural lands. The cities neighbors include Granger to the northwest and Grandview to the southeast, both along I-82. As of the 2020 Census, the City’s population was 16,703. Sunnyside’s municipal boundaries are approximately 7 square miles.

Hazard Identification and Risk Assessment

Representatives of the City of Sunnyside actively participated in the 2022 HMP Update as members of the planning committee. In addition to the countywide risk assessment, the City of Sunnyside identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in Table 5-A below. In the context of the countywide planning area, there are no hazards that are unique to the City of Sunnyside. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 5-A. Hazard Identification and Risk Assessment – City of Sunnyside		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Sunnyside Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	Low
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Low
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Weather	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Sunnyside Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	Low
Hazardous Materials Incident	High	High
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

Both Flood and Dam/Levee Failure risk levels are lower for Sunnyside than Yakima County as a whole, given the higher elevation of the city and location outside of both the 100-year floodplain and any mapped dam inundation areas. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** Sunnyside is located outside of the identified avalanche hazard area and is not located along a transportation corridor that may be disrupted from a significant incident.
- **Drought:** Drought can impact the entirety of Yakima County, including Sunnyside. Irrigation water sources are split between city-owned wells and the Sunnyside Valley Irrigation District (Sunnyside Canal).
- **Earthquake:** The seismic risk for Sunnyside is consistent with all of Yakima County. There are no active fault lines within or surrounding Sunnyside. Most of downtown Sunnyside was built prior to modern seismic standards, and may be vulnerable to a significant earthquake.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Sunnyside. The areas surrounding Sunnyside are home to large dairy farms, and livestock may be vulnerable to extreme heat or extreme cold events. During a 2019 blizzard, dairy farms in and around Sunnyside lost over 1,850 cattle due to exposure to freezing temperatures and high winds. Extreme temperatures are expected to have an impact on the local agricultural industry if they are long duration or particularly severe. Vulnerable residents may include those living in one nursing home, an assisted living facility, and a few small 50+ living communities. The critical access hospital in Sunnyside, due to its design, is extremely vulnerable to extreme heat waves.
- **Flood:** Sunnyside does not have any land located within the 100-year floodplain. The Sunnyside Canal passes one mile north of the City and is a potential source of flooding if it were to fail or be otherwise compromised. Sunnyside has experienced localized flooding along the Snipes Canal and across SR-241, which has historically led to road closures.
- **Landslide:** Sunnyside has a low susceptibility and low incidence of landslides. There is no history of landslides or other geologic hazards in Sunnyside.
- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Sunnyside. There is some historic record of severe storms in the areas surrounding Sunnyside (including hail and wind events), but no specific damage within city limits. Sunnyside has a low median income (approximately \$19,000/year) which results in people living in cars or other unsuitable forms of shelter. These residents are more vulnerable to severe weather, as well as many other natural hazards.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Sunnyside. Most critical facilities in Sunnyside are prepared with back-up power sources, including the fire station and police station, as well as some wells and lift stations. Vulnerable populations and agricultural risks are noted above under the Extreme Temperatures and Severe Weather hazards. Additionally, SR-241 is subject to closure during heavy snowfall, which limits commuters and shipment of commodities. These heavy storms also create a burden on first responders to rescue stranded motorists and respond to crashes.

- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Sunnyside. The city is not located within the Mt. Adams volcano hazard zone.
- **Wildfire:** Sunnyside does not have a higher wildfire hazard potential than other Yakima County communities. Large fires have burned in the Rattlesnake Hills north of the city, including the 2016 Range 12 fire. Due to its location on I-82, Sunnyside experiences limited impacts from transportation disruptions from wildfires. North/South transportation along SR-241 is more likely to experience disruptions from poor air quality and smoke, as well as operations at the airport.
- **Dam/Levee Failure:** Sunnyside is not located directly within the inundation area of any dams.
- **Hazardous Materials:** Sunnyside is at risk from hazardous materials traveling on I-82, SR-241, and on the Burlington Northern Railroad, all of which pass through the city. Various chemicals and hazardous materials travel to and from the Hanford Nuclear Site on SR-241, as well as medical waste. Sunnyside is also home to numerous fixed facilities that store and use chemicals on-site. In 2022, a fire at the Nutrien Ag Solutions Plant in Sunnyside burned 1.7 million pounds of Sulphur and other chemicals. The fire consumed the hazardous chemicals and released them into the air. Although no injuries were reported, 18 homes in the area were evacuated. Additionally, in 2015, an above ground storage tank failed in Sunnyside causing as roughly 1,500 gallons of used motor oil to seep into the Sulphur Creek and Yakima River. Sunnyside is home to several warehouses and a fertilizer mixing plant that are known to store anhydrous ammonia and experiences occasional hazardous materials releases from agricultural transportation along local roadways.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources. Sunnyside Public Works is tasked with keeping critical snow emergency routes and the runways at Sunnyside Municipal Airport during severe winter weather.

Regulatory Capabilities

Sunnyside updated both its municipal code and Comprehensive Plan in 2022. **Table 5-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Sunnyside.

Table 5-B. City of Sunnyside Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 15 of the Sunnyside Municipal Code establishes building and construction codes and regulations. Sunnyside automatically adopts the most recent version of the State and International Building Code.
Zoning	Yes			Title 17 of the Sunnyside Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 18 of the Sunnyside Municipal Code adopts the Yakima County Critical Areas Ordinance, which establishes standards for Geologically Hazardous Areas.
Subdivisions	Yes			Title 16 of the Sunnyside Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Stormwater management and standards are addressed within Title 18 as part of the Critical Areas Ordinance.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Some public safety and health ordinances are included in Title 8 of the Sunnyside Municipal Code. Title 2 establishes police and fire department authorities.
Environmental Protection	Yes			Sunnyside adopted the Yakima County Critical Areas Ordinance which

Table 5-B. City of Sunnyside Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
				includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.
Planning Documents				
Comprehensive	Yes			Sunnyside updated its Comprehensive Plan in 2022. The Plan does not include a natural hazards element.
Environmental Protection	Yes			Sunnyside Public Works manages a Water Comprehensive Plan and a Stormwater Management Program Plan.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
Response/Recovery Planning				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Sunnyside is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Sunnyside is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	Sunnyside participated in an update to the CWPP in 2022.
Continuity of Operations Plan (COOP)	Yes			During plan development, Sunnyside was undergoing a continuity planning process.

Administrative and Technical Capabilities

Sunnyside has a larger city government than most of its neighboring communities in Yakima County. The Sunnyside Police Department and Sunnyside Fire & EMS co-lead emergency operations for the city. In addition to public safety agencies, hazard mitigation administrative and technical capabilities are supported by the City Manager, Public Works Department, contracted services, Port of Sunnyside, Yakima Valley Council of Governments, and county departments.

Table 5-C. City of Sunnyside Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Community & Economic Development Director; Yakima Valley Council of Governments; Contracted Services
Engineers or professionals trained in building or infrastructure construction	Yes	Public Works Director; Building Department and Code Enforcement; Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Public Works Director; Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	Shared responsibility of the Fire Chief and Police Chief, supported through Yakima Valley Emergency Management
Floodplain manager	No	
Grant writers	Yes	Fire and Police Chiefs; Yakima Valley Council of Governments; Contracted Services

National Flood Insurance Program

The City of Sunnyside participates in the National Flood Insurance Program (NFIP) (CID #530227) and has no land within the Special Flood Hazard Area ([FEMA, 2022](#)). Sunnyside does not currently participate in the Community Rating System (CRS) program. **Table 5-D** describes floodplain management capabilities and NFIP program compliance.

Table 5-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Public Works Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No

Mitigation Strategy

The City of Sunnyside identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Sunnyside is included as either the coordinating agency or a partner agency on the actions listed in **Table 5-E**. The complete 2022 Hazard Mitigation Strategy is included as **Appendix E** to the base plan.

Table 5-E. City of Sunnyside 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
10	Drought	Continue implementation of drought risk reduction and water management projects through the Yakima Basin Integrated Plan, including identifying new surface and aquifer storage options.	Yakima River Basin Water Enhancement Project Work Group (Integrated Plan)	Yakima County, City of Yakima, City of Tieton (Yakima-Tieton Irrigation District, City of Sunnyside (Sunnyside Valley and Roza Irrigation Districts))	MODERATE
14	Earthquake	Continue participation in the Great Shakeout program to	Yakima Valley Office of	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside,	HIGH

Table 5-E. City of Sunnyside 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
18	Earthquake Severe Weather Severe Winter Storm	increase earthquake risk awareness across the county. Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Emergency Management Yakima Valley Office of Emergency Management	City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Toppenish, City of Tieton, City of Union Gap, City of Harrah, Town of Naches	HIGH
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems. Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption		Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Table 5-E: City of Sunnyside 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH
33	Flooding	Implement strategies to improve stormwater drainage system capacity as outlined in the Yakima County Comprehensive Plan, Yakima County Stormwater Management Program (2022), and City of Yakima Stormwater Management Program (2022).	Yakima County Regional Stormwater Working Group	City of Yakima, City of Selah, City of Union Gap, City of Sunnyside, Yakima County	MODERATE
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH

Table 5-E. City of Sunnyside 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
39	Flooding	Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP)	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee,	HIGH

Table 5-E: City of Sunnyside 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
			Steering Committee	City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies, private property owners, businesses, and schools.	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 6. City of Tieton

The City of Tieton is located 16 miles west of Yakima in a predominantly agricultural area near the confluence of the Tieton River and Naches River. The city is located at the “top” or northwest end of the Yakima Valley. As of the 2020 Census, the population was 2,053.

Hazard Identification and Risk Assessment

A representative of the City of Tieton actively participated in the 2022 HMP Update as member of the planning committee. In addition to the countywide risk assessment, the City of Tieton identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in **Table 6-A** below. In the context of the countywide planning area, there are no hazards that are unique to the City of Tieton. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 6-A. Hazard Identification and Risk Assessment – City of Tieton		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Tieton Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	Medium
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Medium
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Storm	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Tieton Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	High
Hazardous Materials Incident	High	Medium
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

The City of Tieton has slightly lower flood risk than the rest of Yakima County, due to limited properties and land area within the floodplain. Similarly, the City has a lower risk of hazardous materials incidents given its location off of major transportation corridors and with relatively few fixed facilities. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** Tieton is located at the edge of an avalanche hazard area, according to 2013 Washington State mapping. Tieton does not have a history of avalanches impacting the city itself and is not located along a major transportation corridor that may be impacted by avalanches.
- **Drought:** Drought can impact the entirety of Yakima County, including Tieton. Orchards and other agricultural products make up a significant portion of Tieton's local economy, which may be vulnerable to prolonged drought conditions. Tieton has a robust irrigation system that supports the surrounding agricultural lands, but ground water levels have continued to diminish during recent long-duration droughts.
- **Earthquake:** The seismic risk for Tieton is consistent with all of Yakima County. There are no active faults that run through Tieton and no record of historic earthquake damages. Most of Tieton's building stock is older and may not meet current seismic standards. Tieton City Hall is a cinder block building, which is likely to be damaged in a significant earthquake. Tieton could also be severely impacted by any damage to limited ingress/egress routes, including Naches-Tieton Road which traverses a steep slope. Additionally, the French Canyon Dam above Tieton is vulnerable to earthquake damage, which would cause catastrophic damage to the city.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Tieton. The city regularly experiences extreme cold events and has a record of severe water breaks due to freezing water pipes.
- **Flood:** No land within the city is located within the floodplain of the Naches River, Tieton River, or Cowiche Creek. However, the North Fork of the Cowiche Creek flows through Tieton in the northern portion of the town and a narrow strip of land on either side of the creek has been designated as part of the floodplain. The North Fork of the Cowiche Creek, fed by the French Canyon Dam, is overgrown with natural debris, which has contributed to flooding in the eastern portion of the city, impacting bridges, one road, and one house in the past. There is some modest, non-recurring flooding in the southern part of the city.
- **Landslide:** Tieton has low susceptibility and low incidence of landslides. At the edge of the Yakima Valley, Tieton is near mountainous areas and ridgelines, but is not directly located within the hazard areas. Tieton is located just south of the Nile Valley landslide, and the major transportation corridors around the city may be impacted by landslides or similar incidents.
- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Tieton. There is some historic record of severe storms in the areas surrounding Tieton (including hail and wind events), but no specific damages within city limits. Tieton has experienced downed trees and powerlines from wind events, but there is no historic record of major damages. Power outages are typically resolved in under 24 hours. There is one retirement community in Tieton that is most vulnerable to long-duration power

outages. The narrow driveway to the facility could be blocked from flooding or other debris, leading to isolation of residents.

- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Tieton. Community members are vulnerable to isolation during a significant winter storm, given their distance from other Yakima Valley communities and resources. Given its higher elevation, Tieton is accustomed to heavy snow events. As noted above, Naches-Tieton Road traverses a steep slope and is often closed due to inclement weather. With limited ingress/egress routes, the city is vulnerable to road closures from severe winter storms. Given its distance from more densely populated parts of the county, Tieton is often isolated until county plows can reach the city limits. Tieton has not experienced long-duration power outages in the past, and wastewater and water facilities have back-up generators. Tieton City Hall, the Public Works facility, the Police Department, and the Fire Station do not have back-up power sources.
- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Tieton. Tieton is not located within the Mt. Adams volcano hazard zone.
- **Wildfire:** Tieton does not have a higher wildfire hazard potential than other Yakima County communities but is more remote and therefore could be isolated due to a large wildfire incident. There is a history of large wildfires to the north and west of Tieton. Wildfire response is led by an all-volunteer fire district, which lacks adequate personnel.
- **Dam/Levee Failure:** Tieton is located in the inundation area of the French Canyon Dam on the North Fork of the Cowiche, which is operated by the Yakima-Tieton Irrigation District. This is High Hazard Potential dam, inspected on an annual basis and with an Emergency Action Plan in place. The Washington Department of Ecology classifies this dam as a 1B, which indicates 31 to 300 lives at risk due to failure. There is no current preparedness or public education programs to educate community members about the risk of dam failure, escape routes, or other preparedness measures.
- **Hazardous Materials:** Very few hazardous materials are transported through Tieton due to its distance from major transportation corridors. There are two large warehouses in the city that have large propane tanks and refrigeration chemicals in large quantities. These facilities are located near residential areas and the school.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Tieton last adopted its municipal code in November 2021 and its Comprehensive Plan in 2017. **Table 6-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Tieton.

Table 6-B. City of Tieton Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
Codes and Ordinances				
Building Code	Yes			Title 15 of the Tieton Municipal Code establishes building and construction codes and regulations.
Zoning	Yes			Title 17 of the Tieton Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 17 is inclusive of the Critical Areas Ordinance, which establishes standards for Flood Hazard Areas (Article 4).
Subdivisions	Yes			Title 16 of the Tieton Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Title 17 includes some stormwater requirements for new construction.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Title 8 of the Tieton Municipal Code establishes local health and safety standards and authorities, including emergency management.
Environmental Protection	Yes			Tieton adopted a Critical Areas Ordinance in 2009, which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.
Planning Documents				
Comprehensive	Yes			The City of Tieton last updated its Comprehensive Plan in 2017.

Table 6-B. City of Tieton Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
Environmental Protection	Yes			Tieton is a participant in the Yakima Wetland Protection Plan, and the Yakima-Tieton Irrigation District is a member of the Yakima Basin Integrated Plan.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
Response/Recovery Planning				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Tieton is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Tieton is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	The City of Tieton is represented within the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			The City of Tieton does not have a COOP or Continuity of Government Plan in place currently.

Administrative and Technical Capabilities

Tieton has a small municipal structure, including administration, public works, Tieton Police Department, Yakima County Fire District #1, and a branch of the Yakima Valley Libraries. Hazard mitigation projects are mainly the responsibility of the Public Works Department, made up of three staff. Other key staff include the Police Chief, three staff within city administration, and the Mayor.

Table 6-C. City of Tieton Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Yakima Valley Council of Governments; Contracted Services
Engineers or professionals trained in building or infrastructure construction	Yes	Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	Responsibility of the Fire Chief, supported through Yakima Valley Emergency Management
Floodplain manager	No	
Grant writers	Yes	Contracted Services
Other		

National Flood Insurance Program

The City of Tieton participates in the National Flood Insurance Program (NFIP) (CID #530265D) and the last FIRM map for the area was issued on 10/21/2021 ([FEMA, 2022](#)). The City of Tieton does not currently participate in the Community Rating System (CRS) program. **Table 6-D** describes floodplain management capabilities and NFIP program compliance for Tieton.

Table 6-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Public Works Director
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No

Mitigation Strategy

The City of Tieton identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Tieton is included as either the coordinating agency or a partner agency on the actions listed in Table 6-E. The complete 2022 Hazard Mitigation Strategy is included as [Appendix E](#) to the base plan.

Table 6-E. City of Tieton 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
1	Avalanche Hazardous Materials Landslide/Erosion Severe Winter Storms	Improve alert and warning coordination and procedures to ensure travelers, visitors, and residents are aware of hazards and increased risk along roadways.	Yakima Valley Office of Emergency Management	Washington DOT, City of Selah, City of Tieton, Town of Naches	HIGH
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH

Table 6-E. City of Tieton 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
10	Drought	Continue implementation of drought risk reduction and water management projects through the Yakima Basin Integrated Plan, including identifying new surface and aquifer storage options.	Yakima River Basin Water Enhancement Project Work Group (Integrated Plan)	Yakima County, City of Yakima, City of Tieton (Yakima-Tieton Irrigation District, City of Sunnyside (Sunnyside Valley and Roza Irrigation Districts))	MODERATE
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE

Table 6-E. City of Tieton 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
23	Flooding Landslide/Erosion	Clear debris in the North Fork Cowiche Creek to reduce flooding risk and potential property damage, as well as potential erosion.	City of Tieton Public Works	Yakima County Flood Control Zone District, City of Tieton, Tieton Irrigation District	HIGH
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise,	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County,	HIGH

Table 6-E. City of Tieton 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
29	Flooding	defensible space, insurance programs) Complete Flood Risk Reports for the Upper Naches and Cowlitz watersheds.	Yakima County Flood Control Zone District	Washington Resource Conservation and Development Council FEMA, Yakima County, City of Tieton, Yakima Valley Emergency Management	HIGH
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH
39	Flooding	Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Naches, Yakima County	HIGH
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH

Table 6-E. City of Tieton 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	MODERATE
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee		HIGH
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies, private property owners, businesses, and schools.	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Table 6-E. City of Tieton 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 7. City of Toppenish

The City of Toppenish is located south of the Lower Yakima River at the junction of Highway 22 and US-97. Its neighboring cities include Zillah and Granger along I-82, as well as Wapato, northwest on US-97. As of the 2020 Census, the City's population was 8,872. Toppenish is located within the Yakama Indian Reservation and encompasses about two square miles.

Hazard Identification and Risk Assessment

Representatives of the City of Toppenish actively participated in the 2022 HMP Update as members of the planning committee. In addition to the countywide risk assessment, the City of Toppenish identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in **Table 7-A** below. In the context of the countywide planning area, there are no hazards that are unique to the City of Toppenish. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 7-A. Hazard Identification and Risk Assessment – City of Toppenish		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Toppenish Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	High
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Medium
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Weather	High	High
Volcanic Eruption	Low	Low
Wildfire	High	Medium
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Toppenish Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	High
Hazardous Materials Incident	High	High
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

Toppenish has a lower risk of WUI fires than the rest of Yakima County, with limited wildland areas at risk to burning. Risk levels for other hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** The City of Toppenish is located outside of the identified avalanche hazard area and is not located along one of the main transportation corridors that may be disrupted from a significant incident.
- **Drought:** Drought can impact the entirety of Yakima County, including Toppenish. The City's drinking water is sourced from deep well sites that are well-protected from drought conditions. Irrigation supplies, sourced from surface water sources, are of greater concern for Toppenish. A significant, long-duration drought could impact local agricultural production.
- **Earthquake:** The seismic risk for Toppenish is consistent with all of Yakima County. There is a large earthquake fault that runs along the Toppenish Ridge to the south of Toppenish. An earthquake centered along this fault could increase impacts in the city. Several critical facilities in Toppenish may be at greater risk to a significant earthquake, including the downtown core, Toppenish City Hall, and the police department. The local fire station was damaged by a small earthquake in the early 2000's, resulting in cracks in the foundation that have not been improved. Toppenish has not completed a seismic risk assessment to understand which critical facilities need improvements.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Toppenish. The City has a higher population of houseless and transient people, and does not have a homeless shelter to provide services. The Yakima Valley Farmworkers Clinic operated an emergency shelter during COVID-19, but this service does not meet the entire community need. Houseless people or those with inadequate housing are more vulnerable to extreme heat and extreme cold events.
- **Flood:** The entire north section of Toppenish above the railroad is within the FEMA 100-year floodplain of the Lower Yakima River, including two schools and many residences. During the 1996/1997 floods, the entirety of the 100-year floodplain was underwater. Several critical facilities, into several well sites, a Yakima County fire station, and the 911 Communications Center were impacted by the historic flooding. The 911 Communications Center has since been moved to Sunnyside outside of the floodplain, but the well sites and fire station remain, in addition to the wastewater treatment plant which was not impacted in 1996.
- **Landslide:** Toppenish has low susceptibility and low incidence of landslides. There is no history of landslides or other geologic hazards in Toppenish, but the Toppenish Ridge to the south of the city has a high susceptibility and high incidence of landslides. A landslide on the ridge blocking US-97 could create significant disruptions for the city. The ongoing, slow movement landslide on Rattlesnake Ridge could have created significant impacts in Toppenish, including river diversion and flooding and transportation disruptions. While the worst case scenario has not occurred for that landslide, the risk remains for future incidents. Toppenish is well connected to other Yakima Valley communities and would not experience supply chain impacts in a landslide event.

- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Toppenish. There is some historic record of severe storms in the areas surrounding Toppenish (including hail and wind events), but no specific damages within city limits.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Toppenish. Community members in Toppenish are vulnerable to isolation during a significant winter storm, given its distance from other Yakima Valley communities and resources. Toppenish has experienced long-duration power outages, in some cases up to three days, due to winter storms. Most critical facilities have back-up power sources, including the well sites, City Hall, hospitals, fire and police, and the emergency shelter located at the Yakama Nation Casino. Most of the school buildings do not have back-up power. As noted above, the houseless population is more vulnerable to winter weather events. Evacuation plans and back-up power sources are in place for the nursing home, hospital, and clinic in Toppenish.
- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Toppenish. The city is not located within the Mt. Adams volcano hazard zone.
- **Wildfire:** Toppenish does not have a higher wildfire hazard potential than other Yakima County communities but is more remote and therefore could be isolated due to a large wildfire incident. Large fires have burned on the Toppenish Ridge south of the city, including the 2016 Tule #6 fire. Fires are common on US-97, and highway closures can cause significant disruptions for Toppenish residents, businesses, and emergency operations.
- **Dam/Levee Failure:** Toppenish is in the inundation area of several dams, including the Tieton, Keechelus, and Cle Elum dams. All three dams are operated by the U.S. Bureau of Land Reclamation. All are considered High Hazard Potential dams, with a class rating of 1A by the Washington Department of Ecology, indicating more than 300 lives are at risk due to failure. Toppenish has identified a significant need to improve public education and preparedness for a dam failure, as the city would have just 16 hours before water levels reached 5 ft. from a failure at the Tieton Dam.
- **Hazardous Materials:** Toppenish is at risk from hazardous materials traveling over US-97 and on the Burlington Northern Railroad, both of which pass through the city. There are several fixed facilities of concern in Toppenish, including a fertilizer company with a chemical warehouse storing hydrous ammonia and sulfuric acid. The City has experienced several small hazardous materials releases of acid and ammonia in the past, as well as train derailments, although the rail cars were not carrying hazardous materials at the time. One derailment was in the town itself, after a rail car broke loose in Yakima and traveled 20 miles before stopping just outside of the town limits.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Toppenish last updated its Comprehensive Plan in 2018, and the municipal code was last updated and adopted in August 2022. **Table 7-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Toppenish.

Table 7-B. City of Toppenish Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 15 of the Toppenish Municipal Code establishes building and construction codes and regulations. Toppenish has adopted the 2018 International Building Code.
Zoning	Yes			Title 17 of the Toppenish Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 17 is inclusive of the Critical Areas Ordinance, which establishes standards for Frequently Flooded Areas. Toppenish has not adopted a WUI Code or code related to geologic hazards.
Subdivisions	Yes			Title 16 of the Toppenish Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Stormwater management and standards are addressed within Title 17 as part of the Toppenish Critical Areas Ordinance.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Some public safety and health ordinances are included in Title 8 of the Toppenish Municipal Code.
Environmental Protection	Yes			Toppenish adopted a Critical Areas Ordinance which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.

Table 7-B. City of Toppenish Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Planning Documents</i>				
Comprehensive	Yes			Toppenish last updated its Comprehensive Plan in 2018.
Environmental Protection	Yes			Toppenish is a participant in the Yakima Basin Integrated Plan.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
<i>Response/Recovery Planning</i>				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Toppenish is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Toppenish is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	The City of Toppenish is represented within the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			The City of Toppenish does not have a COOP, but several critical service providers, including the fire department and police department, have COOPs. A strategy for Continuity of Government is outlined in the municipal code.

Administrative and Technical Capabilities

The Town is governed by a Mayor and City Council, and includes several municipal departments – administration, community development and permitting, fire, police, public works, parks and recreation, and local utilities. The Toppenish Police Department and Toppenish Fire Department co-lead emergency operations for the city. Hazard mitigation administrative and technical capabilities are supported by the Public Works Department, as well as contracted services and support from the Yakima Valley Council of Governments and Yakima County departments.

Table 7-C. City of Toppenish Administrative and Technical Capability Assessment		
Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Zoning/Permit Technician; Contracted Services; Yakima Valley Council of Governments
Engineers or professionals trained in building or infrastructure construction	Yes	Assistance City Manager; Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	Shared responsibility of the Fire Chief and Police Chief, supported through Yakima Valley Emergency Management
Floodplain manager	No	Toppenish relies on Yakima County and Yakama Nation for support
Grant writers	Yes	Department Heads; Contracted Services
Other		

National Flood Insurance Program

The City of Toppenish participates in the National Flood Insurance Program (NFIP) (CID #530228) and the last FIRM map for the area was issued on 11/18/2009 (FEMA, 2022). The City of Toppenish does not currently participate in the Community Rating System (CRS) program. Table 7-D describes floodplain management capabilities and NFIP program compliance for Toppenish.

Table 7-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Building Official
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No

Mitigation Strategy

The City of Toppenish identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Toppenish is included as either the coordinating agency or a partner agency on the actions listed in **Table 7-E**. The complete 2022 Hazard Mitigation Strategy is included as **Appendix E** to the base plan.

Table 7-E. City of Toppenish 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH

Table 7-E. City of Toppenish 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Union Gap, City of Toppenish, City of Naches, Town of Harrah, Town of Naches	HIGH
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of	MODERATE

Table 7-E. City of Toppenish 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH
28	Flooding	Complete the Lower Yakima River Comprehensive Flood Management Plan in coordination with Yakama Nation following or concurrent with Flood Insurance Rate Map Study.	Yakima County Flood Control Zone District	Yakama Nation, Yakima Valley Emergency Management, City of Toppenish, Town of Granger, Town of Wapato, Yakima County, Washington DF&W, Washington DOE	HIGH
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners. Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH
39	Flooding		Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH

Table 7-E. City of Toppenish 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Naches, Yakima County	HIGH
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington DOT, Washington DNR, U.S. Forest Service	HIGH
65	Multi-Hazard	Develop, enhance, and implement education programs aimed at mitigating hazards and reducing the risk to residents, public agencies,	Yakima Valley Office of Emergency Management	Yakima County Flood Control Zone District, Yakima County Public Services, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of	HIGH

Table 7-E. City of Toppenish 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Item	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
		private property owners, businesses, and schools.		Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	
67	Multi-Hazard	Provide training and technical assistance for jurisdictions and emergency services providers to create Continuity of Operations Planning (COOP) planning programs. Integrate IT and cyber considerations within COOP resources.	Yakima Valley Office of Emergency Management	Yakima County IT, City of Yakima IT, Yakima County Flood Control Zone District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
68	Multi-Hazard	Support jurisdictions in updating and/or developing Continuity of Government (COG) Plans.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH

Annex 8. City of Union Gap

The City of Union Gap is bordered by the City of Yakima to the north, the Yakima River to the east, the Yakama Indian Reservation to the south, and unincorporated Yakima County to the west. The Union Pacific Railroad runs north/south through the city, dividing it into two distinct areas. As of the 2020 Census, the population was 6,568.

Hazard Identification and Risk Assessment

A representative of the City of Union Gap actively participated in the 2022 HMP Update as member of the planning committee. In addition to the countywide risk assessment, the City of Union Gap identified the hazards that affect the city and revised the risk assessment to reflect probability, frequency, and potential impacts, as summarized in **Table 8-A** below. In the context of the countywide planning area, there are no hazards that are unique to the City of Union Gap. Information on past events for each hazard can be found in Section 3 (Hazard Identification and Risk Assessment) in the base plan.

Table 8-A. Hazard Identification and Risk Assessment – City of Union Gap		
Natural Hazards	2022 Countywide Risk Ranking	2022 City of Union Gap Risk Ranking
Agriculture Disease Outbreak	Medium	Medium
Avalanche	Low	Low
Drought	Medium	Medium
Earthquake	Low	Low
Extreme Temperatures	Medium	Medium
Flood	High	High
Landslide/Mudslide/Debris Torrent/Erosion	Medium	Medium
Public Health Emergency	High	High
Severe Weather	Medium	Medium
Severe Winter Storm	High	High
Volcanic Eruption	Low	Low
Wildfire	High	High
Technological and Human-caused Hazards	2022 Countywide Risk Ranking	2022 City of Union Gap Risk Ranking
Cyber Incident	Medium	Medium
Dam and Levee Failure	High	High
Hazardous Materials Incident	High	High
Nuclear/Radiological Incident	Low	Low
Terrorism	Low	Low

All risk levels for Union Gap hazards/threats are consistent with the county rankings. Specific hazard areas and vulnerabilities are described below.

- **Avalanche:** Union Gap is located outside of the identified avalanche hazard area. Union Gap could be impacted by a closure of US-12 and I-90 due to avalanches if it was for a long duration. When Snoqualmie Pass (I-90) and White Pass (US-12) close for avalanches, Union Gap is impacted by local congestion and short-term supply chain disruptions.
- **Drought:** Drought can impact the entirety of Yakima County, including Union Gap. Agricultural products make up a significant portion of Union Gap's local economy, which may be vulnerable to prolonged drought conditions. Union Gap has sufficient groundwater supplies that are protected from drought. The City completed a Water System Security Assessment in 2021.
- **Earthquake:** The seismic risk is slightly higher for Union Gap compared to neighboring communities, as there are several small active faults that run along its southern boundary. Union Gap does not have a record of historic earthquake damages. Most critical facilities in Union Gap have been built to modern seismic standards, including the City Hall and police department. The fire station is an older building but is only one story. Major transportation corridors have been recently updated, including an overpass bridge on Valley Mall Blvd. and several smaller bridges over the Ahtanum-Wide Hollow Creek.
- **Extreme Temperatures:** Extreme temperatures can impact the entirety of Yakima County, including Union Gap. The city is home to many light industrial facilities where people work outside or in warehouses without climate control. These workers could be more vulnerable to extreme temperatures, as well as the local nursing home.
- **Flood:** Union Gap is located at the confluence of Ahtanum Creek, Wide Hollow Creek, and the Lower Yakima River, with several floodplains passing through the city. The Yakima River makes up the eastern boundary of the city, running along I-82, creating significant flooding risk. In 2016-2017, the Ahtanum Creek flooded and damaged one home in Union Gap. Since, the City has completed some mitigation work to clear debris and remove trees. Ahtanum Creek experiences significant spring run-off every year, but 100-year flooding events as occurred in 1996/1997 can lead to major damages and disruptions to critical infrastructure and transportation corridors. The south end of Main Street at I-82 and I-97 is subject to standing water, which can isolate a 55+ manufactured home community on Leisure Hill Dr. with vulnerable residents. There is a second manufactured home community just west of I-82 between Holiday Avenue and Freeway Avenue that is also located in the floodplain. Since the 1996 floods, I-82 has been raised, which alleviates some disruptions during moderate flooding.
- **Landslide:** Union Gap has low susceptibility and low incidence of landslides. Major transportation corridors north of the city may be impacted by landslides or similar incidents. The ongoing, slow movement landslide on Rattlesnake Ridge could have created significant impacts in Union Gap, including a 72-hour river diversion and flooding and transportation disruptions. While the worst case scenario has not occurred for that landslide, the risk remains for future incidents. Ahtanum Ridge at the south end of the city limits could pose similar risks.

- **Severe Weather:** Severe weather can impact the entirety of Yakima County, including Union Gap. There is some historic record of severe storms in the areas surrounding Union Gap (including hail and wind events), but no specific damages within city limits. Union Gap has not experienced long-duration power outages, but the nursing home and 55+ community do not have back-up emergency power sources. Critical facilities, including the fire station, police station, and schools have back-up power.
- **Severe Winter Weather:** Severe winter weather can impact the entirety of Yakima County, including Union Gap. Residents in the city have seen some damages to roofs from heavy snow events, including in 1996. The City has adequate resources for plowing and clearing critical roadways, including contracted services for redundancy. Limited fuel supplies may pose some challenges during a long-duration event.
- **Volcanic Eruption:** Volcanic hazards, specifically ash fall, can impact the entirety of Yakima County, including Union Gap. Union Gap is not located within the Mt. Adams hazard zone.
- **Wildfire:** Union Gap does not have a higher wildfire hazard potential than other Yakima County communities and would be similarly impacted by smoke and poor air quality. Elderly people in the community are vulnerable to poor air quality and may benefit from clean air shelters.
- **Dam/Levee Failure:** Union Gap is located in the inundation area of several dams, including the Bumping, Keechelus, Tieton, and Cle Elum dams. All four dams are operated by the U.S. Bureau of Land Reclamation. All three are considered High Hazard Potential dams, with a class rating of 1A by the Washington Department of Ecology, indicating more than 300 lives are at risk due to failure. The Public Safety Answering Point is located in the inundation area of the Tieton Dam and associated flooding would significantly restrict emergency response operations. Union Gap has identified a need for more public education and information about dam failure.
- **Hazardous Materials:** Union Gap is at high risk to hazardous materials incidents due to its location along I-82 and the crossing of the Union Pacific Railroad, both major transportation routes for hazardous materials. Additionally, there are many fixed facilities that store hazardous materials within the city. Union Gap is home to three large fruit warehousing operations that store chemicals on-site and have experienced minor leaks in the past. The city has also seen train derailments, including one just south of Ahtanum Road that impacted the local transportation network. Yakima and Union Gap have a combined fire department that is well-equipped to respond to hazardous materials incidents and drill regularly. There are two school buildings downwind of most of these fixed facilities that may need to shelter-in-place.

Capability Assessment

Capabilities are the programs and policies currently in use that could be used to implement the hazard mitigation strategy. Local capabilities may include regulatory tools such as plans and ordinances, administrative and technical expertise, or fiscal resources.

Regulatory Capabilities

Union Gap last adopted its municipal code in December 2021 and its Comprehensive Plan in 2017. **Table 8-B** lists key indicators of legal and regulatory capability to implement mitigation projects that are specific to the City of Union Gap.

Table 8-B. City of Union Gap Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
<i>Codes and Ordinances</i>				
Building Code	Yes			Title 14 of the Union Gap Municipal Code establishes building and construction codes and regulations.
Zoning	Yes			Title 17 of the Union Gap Municipal Code establishes the local zoning ordinance.
Hazard-specific	Yes			Title 17 is inclusive of the Critical Areas Ordinance, which establishes standards for Flood Hazard Areas (Article 4) and Geologically Hazardous Areas (Article 6).
Subdivisions	Yes			Title 16 of the Union Gap Municipal Code establishes the local subdivision ordinance.
Stormwater Management	Yes			Title 14 of the Union Gap Municipal Code establishes standards for construction to ensure stormwater management and control. Union Gap also participates in the Yakima Regional Stormwater Group. This interagency group reviews regional stormwater policies and permitting processes.
Growth Management			Yes	The Washington State Growth Management Act (RCW Chapter 36.70A) directs growth management and comprehensive planning for Washington cities and counties.
Public Health and Safety	Yes			Title 2 of the Union Gap Municipal Code establishes various administrative departments and authorities, including emergency management and public safety agencies (fire and police).

Table 8-B. City of Union Gap Legal and Regulatory Capability Assessment				
Indicator	Local Authority	County Run	Other Authority	Comments
Environmental Protection	Yes			Union Gap adopted a Critical Areas Ordinance in 2012, which includes procedures for protecting wetlands, fish and wildlife habitat conservation areas, areas subject to certain hazards, and other environmentally sensitive lands.
Planning Documents				
Comprehensive	Yes			Union Gap last updated its Comprehensive Plan in 2022.
Environmental Protection	Yes			Union Gap implements strategies to filter and capture run-off. The Public Works Department is responsible for stormwater mitigation planning.
Transportation			Yes	The Yakima Valley Conference of Governments manages the Yakima Valley Metropolitan and Regional Transportation Plan, last updated in 2020.
Response/Recovery Planning				
Comprehensive Emergency Management Plan (CEMP)			Yes	The City of Union Gap is a member of the Yakima Valley Emergency Management and Yakima County Emergency Services Council. Union Gap is a party to the 2019 CEMP.
Community Wildfire Protection Plan (CWPP)			Yes	Union Gap is represented within the Yakima Valley Fire Adapted Communities Coalition, which was revising the CWPP at the time of HMP development (2022).
Continuity of Operations Plan (COOP)	Yes			The City of Union Gap has a city-wide COOP last updated in 2007, as well as a Continuity of Government Plan last updated in 2015.

Administrative and Technical Capabilities

Union Gap has a larger municipal structure than some of its neighboring cities, with various departments including community development, community services, finance, parks, public works, transit, City of Union Gap Police Department, and the combined Union Gap and Yakima Fire Department. Hazard mitigation administrative and technical capacity is primarily supported by the City Administrator, Public Works Department, fire and police, and some contracted services.

Table 8-C. City of Union Gap Administrative and Technical Capability Assessment

Indicator	Available	Comments
Planners or engineers with knowledge of land development and land management	Yes	Public Works and Community Development; Yakima Valley Council of Governments
Engineers or professionals trained in building or infrastructure construction	Yes	Building Official and City Engineer; Contracted Services
Planners or engineers with an understanding of natural hazards	Yes	Contracted Services
Surveyors	Yes	Contracted Services
Personnel skilled or trained in GIS	Yes	Yakima County GIS
Emergency manager	Yes	The Union Gap Police Chief fills this role with support from Yakima Valley Emergency Management
Floodplain manager	Yes	Public Works and Community Development
Grant writers	Yes	Department Heads; Contracted Services
Other		

National Flood Insurance Program

The City of Union Gap participates in the National Flood Insurance Program (NFIP) (CID #530229D) and the last FIRM map for the area was issued on 06/16/16 (FEMA, 2022). The City of Union Gap does not currently participate in the Community Rating System (CRS) program.

Table 8-D describes floodplain management capabilities and NFIP program compliance for the City of Union Gap.

Table 8-D. National Flood Insurance Program Compliance and Capabilities	
What department is responsible for floodplain management in your jurisdiction?	Public Works and Community Development Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No

Mitigation Strategy

The City of Union Gap identified and prioritized mitigation actions as a part of the countywide mitigation strategy. Union Gap is included as either the coordinating agency or a partner agency on the actions listed in Table 8-E. The complete 2022 Hazard Mitigation Strategy is included as [Appendix E](#) to the base plan.

Table 8-E. City of Union Gap 2022 Hazard Mitigation Strategy					
Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
3	Avalanche Earthquake Landslide/Erosion Volcanic Eruption	Manage development in geologic hazard areas to reduce risk to existing and future development, as outlined in municipal codes and comprehensive plans.	City/Town Planning Departments and Building Officials	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	MODERATE
4	Cyber Threat/Attack	Complete a Security Risk Assessment to prioritize mediation tasks and mitigate vulnerabilities.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
6	Cyber Threat/Attack	Expand regular self-phishing and testing programs for City of Selah and City of Union Gap IT networks.	City of Yakima Information Technology	City of Selah, City of Union Gap	HIGH
7	Cyber Threat/Attack	Conduct training and exercises for cyber intrusions and other cyber threats to critical facilities, infrastructure, and government operations.	Yakima County Information Technology, City of Yakima Information Technology	Yakima Valley Emergency Management, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
14	Earthquake	Continue participation in the Great Shakeout program to increase earthquake risk awareness across the county.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH

Table 8-E. City of Union Gap 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
18	Earthquake Severe Weather Severe Winter Storm	Develop an inventory of at-risk critical facilities and infrastructure, including unreinforced masonry and transportation assets, and prioritize projects.	Yakima Valley Office of Emergency Management	Yakima County GIS, Yakima County Public Services/Permit Services, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches	HIGH
19	Earthquake Severe Weather Severe Winter Weather Wildfire	Secure funding to purchase back-up power generators for critical facilities, including fire stations, emergency shelters, mass care sites, critical logistics, and water systems. Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
20	Extreme Temperatures Public Health Emergencies Wildfire Volcanic Eruption	Coordinate with local health, social services agencies, and community partners to issue personal protective actions and advance alert/warning for hazards that may lead to public health impacts, including wildfires (smoke/air quality), extreme temperatures, or other public health emergencies.	Yakima Valley Office of Emergency Management	Yakima Health District, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
21	Extreme Temperatures Wildfire Volcanic Eruption	Establish cooling and clean air shelters within public facilities to provide temporary shelter for vulnerable residents during extreme weather and poor air quality days.	Yakima Valley Office of Emergency Management	City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	HIGH
22	Extreme Temperatures Volcanic Eruption	Develop an Emergency Water Distribution Plan.	Yakima Valley Office of Emergency Management	Irrigation Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Union Gap	MODERATE

Table 8-E. City of Union Gap 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
25	Flooding Wildfire	Develop a public awareness and education campaign about existing mitigation programs targeted to personal preparedness measures for homeowners (ex. FireWise, defensible space, insurance programs)	Yakima Valley Office of Emergency Management	Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Yakima County Flood Control District, Yakima County Fire Districts, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County, Washington Resource Conservation and Development Council	HIGH
33	Flooding	Implement strategies to improve stormwater drainage system capacity as outlined in the Yakima County Comprehensive Plan, Yakima County Stormwater Management Program (2022), and City of Yakima Stormwater Management Program (2022).	Yakima County Regional Stormwater Working Group	City of Yakima, City of Selah, City of Union Gap, City of Sunnyside, Yakima County	MODERATE
35	Flooding	Continue efforts to increase Ahtanum channel capacity and reduce flood hazard downstream to Union Gap and Yakima.	Yakima County Flood Control Zone District	Ahtanum Irrigation District, City of Union Gap, City of Yakima	HIGH
38	Flooding	Maintain compliance with current National Flood Insurance Program (NFIP) regulations to make flood insurance available to property owners.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Flood Control Zone District, Yakima County	HIGH

Table 8-E. City of Union Gap 2022 Hazard Mitigation Strategy

Action #	Hazard	Action Items	Coordinating Organization	Participating Jurisdictions and Supporting Agencies	Priority
39	Flooding	Consider entering, maintaining compliance with, or lowering Class rating for the FEMA Community Rating System (CRS), which rewards jurisdictions that are pro-active in public awareness and pre-hazard mitigation. Develop application meeting program requirements and implement.	Local Floodplain Officials	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
40	Flooding	Acquire, relocate, or remove existing structures from flood hazard areas as identified in Comprehensive Flood Hazard Management Plans.	Yakima County Flood Control Zone District	Yakima County Planning Division, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Naches, Yakima County	HIGH
41	Flooding	Advance opportunistic cooperation with entities on their projects where flood risk reduction may result.	Yakima County Flood Control Zone District	City of Grandview, City of Granger, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County Public Services, Yakima Valley Emergency Management, Yakima County Roads	HIGH
54	Wildfire	Research, identify, and implement planning and development policies to facilitate rebuilding during disaster recovery.	Yakima County Planning	City of Yakima Community Development, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside, City of Tieton, City of Toppenish, City of Union Gap, City of Yakima, Town of Harrah, Town of Naches, Yakima County	MODERATE
59	Wildfire	Improve access/egress routes and signage.	Community Wildfire Protection Plan (CWPP) Steering Committee	Yakima County Fire Districts, Yakima Valley Emergency Management, Yakima County Building and Fire Division, Yakima County Roads Divisions, City of Grandview, City of Granger, City of Moxee, City of Selah, City of Sunnyside,	HIGH