CITY OF
GRANITE FALLS

The City of Granite Falls

Hazard Mitigation Plan 2026

City of Granite Falls

HAZARD MITIGATION PLAN

June 2026

Prepared for:
City of Granite Falls
215 S. Granite Avenue
Granite Falls, WA 98252

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Acknowledge:

UW's Livable City Year

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Granite Falls Plan Annex

The Granite Falls Hazard Mitigation Plan (HMP) Annex is a jurisdiction-specific supplement to the Snohomish County Multi-Jurisdictional Hazard Mitigation Plan, developed in compliance with the Disaster Mitigation Act of 2000 and maintained to ensure the City's continued eligibility for federal Hazard Mitigation Assistance grant programs. This annex identifies the natural and human-caused hazards posing the greatest risk to Granite Fall's residents, property, and critical infrastructure; assesses the City's unique vulnerability within the broader county risk landscape; and establishes locally tailored mitigation measures and prioritized actions to reduce long-term risk and strengthen community resilience. The plan was developed through an inclusive public engagement process and reflects coordination among City departments, partner agencies, and the Snohomish County Department of Emergency Management. Upon adoption by the Granite Falls City Council, approval by FEMA, and adoption of the base plan, this annex will remain in effect for five years, during which designated City staff will track implementation progress, pursue mitigation funding opportunities, and coordinate with the County on plan maintenance and the next update cycle.

X.1 Hazard Mitigation Points of Contact

Primary Point of Contact	Secondary Point of Contact
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X.2 Granite Falls Profile

This section provides background and a profile on the City of Granite Falls. It includes the following sections: Population and Employment, Development Trends, Geography and Climate, and Governance.

Granite Falls is located between the Pilchuck and Stillaguamish Rivers in the western foothills of the Cascade Mountain Range. The city covers 2.21 square miles and lies near the center of Snohomish County, northeast of Everett, Lake Stevens, and Marysville. The surrounding area includes notable natural features such as the Granite Falls on the South Fork Stillaguamish River, the Mountain Loop Highway, and nearby access to Mount Pilchuck State Park and the Henry M. Jackson Wilderness. These areas are characterized by forested terrain, river valleys, and steep mountain slopes, which contribute to the region's scenic value and potential natural hazards. According to

the 2024 Snohomish County Growth Monitoring Report, Granite Falls has a population of 4,768 residents.

Historically, the current Granite Falls was the site of former Native American fishing grounds. The city of Granite Falls was incorporated in 1903, when lumber was the predominant industry. It later became a railroad station on the route between Monte Cristo (now a ghost town) and Everett. The city's first timber mill was opened by 1891, and a dozen mills were operating by 1906. Now, Granite Falls is largely a residential community whose occupants commute to other parts of Snohomish and King Counties.

Granite Falls has multiple roads and connection points. Highway 92 leads to Highway 9, Jordan Road connects to Arlington, and Highway 530. The city is also the southern entrance of the Mountain Loop Highway.

Major utility providers include Snohomish County PUD, which provides both power and drinking water to the City; Puget Sound Energy, which provides natural gas; and the City, which provides sanitary sewer. The City has completed upgrading the wastewater treatment plant, which processes wastewater for City residents and public infrastructure.

Population and Employment

According to the 2024 Snohomish County Growth Monitoring Report, Granite Falls has a population of 4,768 residents. Additional demographic information below:

- The median age is 36.6 years.
- 24.4% of residents are under age 18; 13.4% are age 65 or older.
- The population is 53.9% female and 46.1% male.
- Racial composition:
    - 64.1% White alone;
    - 15.6% Asian alone;
    - 6.4% Hispanic or Latino;
    - 1.9% American Indian or Alaskan Native alone.
- Among residents aged 25 and over, 91.8% have completed high school or higher, and 25.5% hold a bachelor's degree or higher.
- 69.5% of residents aged 16 and over participate in the civilian labor force; many residents commute outside the city for work.

Development Trends

Granite Falls has transitioned from a historically resource-based community to a primarily residential city with strong regional commuting ties. Citywide residential patterns remain predominantly low-density and single-family, with limited multifamily

housing concentrated near the downtown core and newer development occurring toward the city's edges. The City anticipates an increase in single-family residence permitting, driven by recent submittals and approvals of new subdivisions and housing developments. As Granite Falls is expected to continue growing through 2044, maintaining infrastructure capacity, access to services, and coordinated land use planning will be important, particularly where residential expansion intersects with environmental constraints and transportation corridors that are critical during hazard events.

Granite Falls' economy is based on gravel and subassembly manufacturing, light and heavy industrial manufacturing, and retail that serves residents and tourists traveling along the Mountain Loop Recreation Area. According to the 2022 Census Data, 2,001 residents commute outside of Granite Falls for work, 818 commute to Granite Falls for employment, and 121 are employed and live in Granite Falls. Iron Mountain Quarry, one of the largest businesses in Granite Falls, employs approximately 60 employees. A majority of the Quarry resides just outside of the city limits, but the soil remediation/ asphalt plant facility is located on a parcel within the city. Public administration and accommodation and food services make up a substantial portion of the city's employment base, supported by institutions such as the Granite Falls School District and local government. These sectors provide stable jobs and play a key role in sustaining the community.

The largest annual event in Granite Falls is the October Railroad Days, which can bring in upwards of 2,500 people per year. A seasonal Farmers Market provides locals with a venue to sell and shop for local goods and brings in visitors. The annual Christmas Tree lighting festival reinforces the City's investment in community and commitment to its residents. The Annual Show 'N Shine car show in August also attracts an ever-increasing number of visitors, helping to support local businesses.

Geography and Climate

Granite Falls enjoys a temperate four-season climate, with average low and high temperatures of 33°F and 77°F, respectively.[1] The average annual rainfall is 44.3 inches. The average annual snowfall accumulation is 16.7 inches. The hottest months in Granite Falls are July and August, with the coolest temperatures between November and February. Wind speed in Granite Falls is generally calm to light, with annual ranges between 3 and 7 mph. The windiest conditions occur from mid-October to early April,

[1] Weather Spark, "Average Weather in Granite Falls, Washington, water impacts from decreasing snowpack, leading to, United States, Year Round," accessed May 15, 2026, Weather Spark.

with average wind speeds exceeding 3.7 miles per hour; the calmest month of the year is August, with average wind speeds of 2.6 miles per hour.[2] Wind direction varies throughout the year, occurring most often from the east between November and February.

The city sits at around 400 feet above sea level and is located in the foothills of the Cascade Range. Granite Falls is split into two watershed boundaries, the Stillaguamish Watershed on the north side and the Snohomish Watershed on the south side. The unincorporated Urban Growth Area boundaries fall within these two watersheds. The topography of Granite Falls contains very significant variations in elevation, with a maximum elevation gain of about 960 feet.[3] The lowest-lying areas are to the north and south of the city, along the rivers, in the floodplains.

Climate change is set to have serious consequences on the Pacific Northwest, specifically impacting the water, ecosystems, forests, oceans, and coasts, and humans. The region is already seeing water impacts from decreasing snowpack, leading to shifts in water availability. Rain patterns are also set to change, with increased rainfall in Fall, Winter, and Spring and decreased amounts in the summer. The forests of the Pacific Northwest are expected to experience the impacts of climate change through disturbances such as drought, wildfire, and disease. Additionally, as the temperatures rise in the region, the climate will no longer be suitable for some tree species. This could cause large issues within the ecosystem. Forests are not the only habitats or species affected by climate change. With rising temperatures, ecosystems across the region will be affected. Coasts and oceans are examples of other ecosystems that will be impacted. The northwest region is projected to see an increase in the frequency and intensity of extreme precipitation events. The region is already experiencing sea level rise, but ocean acidification and warming are also threatening the wildlife, infrastructure, and communities along the coasts. And lastly, all of these consequences are predicted to have serious impacts on human health with increased risk of diseases, illness, injury, malnutrition, and death.[4]

Granite Falls is expected to experience increased severity and frequency of extreme heat, storms, flooding, and wildfires, along with reduced snowpack.[5] Snohomish County

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[2] Weather Spark, “Average Weather in Granite Falls, Washington, United States, Year Round,” accessed May 27, 2026, Weather Spark .
[3] “Granite Falls Topographic Map,” *Topographic-Map.com*, accessed May 27, 2026, https://en-us.topographic-map.com/map-k17h57/Granite-Falls/?popup=48.08837%2C-121.95512
[4] University of Washington Climate Impacts Group. (n.d). Climate Impacts. https://cig.uw.edu/learn/climate-impacts/
[5] Snohomish County. (2023). SnoCo Climate Change Fact Sheet. https://www.snohomishcountywa.gov/DocumentCenter/View/106917/SnoCo-Climate-Change-

predicts that by 2050, there will be between 8 and 20 more days of extreme heat per year, and the snowpack is expected to decrease by 45%.[6] The storms will be more frequent and stronger, leading to more flooding from increased rainfall. With the increase in wildfires, air quality may worsen due to smoke.[7]

Governance

Granite Falls is a non-charter code city, governed by a strong council-manager system of government, with five elected city council members for four-year terms. Council members serve as the voice of the Granite Falls residents. A ceremonial mayor is selected for the council to manage the council meetings. The Council will assume responsibility for adopting this plan.
Judicial services for the City of Granite Falls are provided by Snohomish County. Consequently, municipal court functions, including prosecution, court administration, and related judicial services, are managed through the county's judicial system, which encompasses both District and Superior Courts. This collaborative arrangement enables Granite Falls to focus its resources on essential city services while leveraging the county's established legal and judicial infrastructure.

Daily operations are overseen by the City Manager, who is appointed by the council. City services include a clerk's office, finance office, planning/development services, and public works. These departments provide services directly to the community. Police services are contracted through the Snohomish County Sheriff's Office. Granite Falls Fire District #17 serves as the local fire and emergency medical services

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Vulnerability-Risk-Assessment-Public-Outreach-Meetings

[6] University of Washington Climate Impacts Group. (2026). Climate Mapping for a Resilient Washington. https://data.cig.uw.edu/climatemapping/

[7] Snohomish County. (n.d.). *C*ommunitywide Climate Resiliency Plan. *https://www.snohomishcountywa.gov/6604/Communitywide-Climate-Resiliency-Plan?utm_source=chatgpt.com*

X.3 Granite Falls Risk Summary

This section describes 13 hazard risks (identified by the Snohomish County HMP) and how they would affect Granite Falls if they were to occur. This section includes previous hazard events, hazard risks and vulnerabilities, and assets at risk.

Table X.1 lists the hazard event history for Granite Falls. No direct assistance was needed for Granite Falls in the last 15 years. Below are hazards that have affected Snohomish County and Granite Falls.

Table X.1: Granite Falls Previous Hazard Events

Type of Event *Denotes declared disasters in Snohomish County	FEMA Disaster Number	Date of Hazard Declaration	Casualties/ Preliminary Damage Assessment	Research/Justification
*Severe Storms, Straight-line Winds, Flooding, Landslides, Mudslides	EM-3629-WA	12/12/2025	No Assistance was requested by Granite Falls	High water levels at the fish ladder were reported by King 5 News Landslide on mountain loop highway cleared by Snohomish County DEM: Link to FB post
Severe Rain, Flooding, Landslides	No FEMA disaster declaration identified	Flooding reported on 12/5/2023; local emergency proclaimed 12/6/2023	No Assistance was requested by Granite Falls	Flooding and damage to homes near the Stillaguamish river reported by Fox 13 News Flooding reported by King 5 News and Fox 13 HWY 530 shut down, reported by the Herald Net Marten Creek Slide Repair | Snohomish County, WA - Official Website "Snohomish County Road Maintenance completed an emergency slide repair on Mountain Loop Highway east of Granite Falls at milepost 20.6 following severe rain and flooding

				events in November and December 2023.”
*Severe Winter Storm, Straight-line Winds, Flooding, Landslides, Mudslides	DR-4682-WA	1/12/2023, Incident period Nov 3 - 8, 2022	No Assistance was requested by Granite Falls	Could not find evidence of impacts in Granite Falls
*Bolt Creek Fire	FM-5455-WA	9/10/2022	No Assistance was requested by Granite Falls	Air quality impacts (?)
*Severe Winter Storm: Straight-line Winds, Flooding, Landslides, Mudslides	DR-4593-WA	4/8/2021, Incident Period: December 29, 2020 – January 16, 2021	No Assistance was requested by Granite Falls	Could not find evidence of impacts in Granite Falls
*Severe Storms, Flooding, Landslides, Mudslides	DR-4539-WA	4/23/2020, Incident Period: Jan. 20, 2020 - Feb. 10, 2020	No Assistance was requested by Granite Falls	Flooding and high river levels, reported by Live Storms Media
*Covid-19 Pandemic	DR-4481-WA	3/22/2020	No Assistance was requested by Granite Falls	Extreme regional and economic impacts
*Severe Winter Storms, Straight-line Winds, Flooding, Landslides, Mudslides, Tornado	DR-4418-WA	3/4/2019, Incident Period: Dec. 10, 2018 - Dec. 24, 2018	No Assistance was requested by Granite Falls	Could not find evidence of impacts in Granite Falls
*Severe Storms, Straight-line Winds, Flooding, Landslides, Mudslides	DR-4249-WA	1/15/2016	No Assistance was requested by Granite Falls	Dec 9, 2015 event: “The Stillaguamish River was also running high through Granite Falls.” Reported by King 5 Seems to have affected

				people outside of GF along the Mountain Loop Highway (Forest Road 4037), reported by Kiro 7
*Severe Windstorm	DR-4242-WA	10/15/2015	No Assistance was requested by Granite Falls	In Granite Falls, one family had at least seven trees fall on top of their house." Reported by King 5 News
Oso Landslide	EM-3370-WA	3/24/2014	No Assistance was requested by Granite Falls	Caused regional impacts due to Darrington residents having to route through the Mountain Loop Highway
*Severe Winter Storm, Flooding, Landslides, Mudslides	DR-4056-WA	3/5/2012	No Assistance was requested by Granite Falls	Previous HMP
Severe Winter Storm	N/A	2/2011	No Assistance was requested by Granite Falls	Previous HMP
*Severe Winter Storm, Record and Near-Record Snow	1825-DR-WA	3/2/2009	No Assistance was requested by Granite Falls	Previous HMP
Wind Storm	N/A	3/2003	$250,000	Previous HMP
Earthquake (Nisqually)	DR-1361-WA	3/1/2001	Minor damage	Previous HMP
Earthquake (Duvall)	N/A	5/1996	Damage to private businesses	Previous HMP
Severe Storms/Flood	DR-1100-WA	2/9/1996	No significant damage	Previous HMP
Flood	1079-DR	12/1995	No significant damage	Previous HMP

Hazard Risk and Vulnerability

Table X.2 discusses the specific hazard risk and vulnerability summary for Granite Falls. The table discusses the hazard risks, vulnerabilities, and impact summary of each hazard, and the probability of that hazard occurring. The vulnerability and impact assessment for each risk follows the Snohomish County guidance on vulnerability:

1. **Minimum Impact:**
    a. Shutdown of critical facilities for less than 24 hours
    b. No/minor injuries
    c. Less than 10% of property severely damaged
    d. Impact on the environment would not require remediation.
2. **Low Impact:**
    a. Complete shutdown of critical facilities for one week
    b. Some injuries
    c. More than 10% of property severely damaged
    d. Impact on the environment would be minimal and only require a local response.
3. **Medium Impact:**
    a. Complete shutdown of critical facilities for two weeks
    b. Multiple severe injuries
    c. More than 25% of property severely damaged
    d. Localized and temporary Impacts to the environment as a result of the event and/or cascading effects. No immediate health threat to people, and environmental remediation would restore the environment to acceptable limits.
4. **High Impact:**
    a. Complete shutdown of critical facilities for 30 days or more
    b. Multiple deaths
    c. More than 50% of property severely damaged
    d. Catastrophic impacts to the environment as a result of the event and/or cascading effects. Environmental impacts would have immediate and long-term health effects on people. Significant resources required for remediation.

The probability assessment for each risk follows the Snohomish County guidance on probability and includes a discussion of climate change impacts:

5. **Unlikely:** <1% probability in the next 100 years. No emergency declarations are likely.

6. **Possible:** Between 1 to 10% probability in the next year, or at least 1 in the next 100 years. Very few emergency declarations have occurred.
7. **Likely:** Between 10 and 100% probability in the next year, or at least one chance in 10 years. Some emergency declarations have occurred.
8. **Highly Likely:** Near 100% probability in the next year. Many emergency declarations have occurred.

Table X.2: Granite Falls Hazard Risk and Vulnerability Summary.

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
Earthquake & Tsunami	Earthquakes pose a high risk due to their high potential impact and Granite Falls' vulnerability to isolation. The entire area is expected to experience MMI 7 (very strong) shaking from a Southern Whidbey earthquake scenario (a shallow Magnitude 7.4 earthquake).[8] This will cause "considerable damage in poorly built or badly designed structures."[9] Older buildings are especially susceptible to damage; "The majority of the buildings in the City's downtown commercial district (70%+) are constructed of older brick masonry and historic building materials with no seismic retrofitting.[10] Additionally, earthquakes pose a threat to gas, electrical, and sewer infrastructure. There is a moderate risk of liquefaction, higher along the Stillaguamish and Pilchuck rivers. Earthquakes can also have a high impact on transportation into and out of the city, causing isolation. Earthquakes could disrupt bus service and block transportation routes, complicating movement into and out of the city. Bridge 102 is functionally obsolete and could be severely damaged in an earthquake, blocking access to and from the Mountain Loop Highway. The major risk during earthquakes is isolation. Due to Granite Falls' isolated geographic location and reliance on essential services from cities such as Everett, it is defined as a 'population island', "where mobility outside of the immediate area may be significantly limited, or impossible". This makes Granite Falls at risk of being cut off from receiving emergency services and water supply from Everett, which can have direct impacts on essential needs and medical services in the case of a hazard. Additionally, isolation has the potential to block necessary food and supplies, as well as access to residents' jobs and families who live outside the immediate area, placing vulnerable populations that rely on these services and communications at increased risk. Granite Falls is not located within the Tsunami inundation zone but may	Likely - same probability as the County. It is unknown if climate change affects the probability of earthquake events. Climate change impacts on earthquake probability are unknown, however secondary impacts could be magnified by climate change.[11] The probability of tsunamis increases through other natural events like sea level rise, landslides, and increased volcanic and earthquake activity.

[8] Snohomish County Emergency Management (n.d.) *Snohomish County Hazard Viewer*. https://storymaps.arcgis.com/collections/28d8e2c49c6a406b875ed20fad52139a?item=1.
[9] https://www.usgs.gov/programs/earthquake-hazards/modified-mercalli-intensity-scale
[10] Snohomish County Emergency Management. 2015. "Update Hazard Mitigation Plan Volume 2: Planning Partner Annexes. Chapter 8: City of Granite Falls Annex"
[11] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1." p. 119.

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
	experience consequences from regional impacts.	
Wildfire	Wildfires pose a high risk to Granite Falls due to the medium potential impact, exacerbated by its vulnerability to isolation and climate change. Wildfires are influenced by drought, limited snowpack, and local weather conditions, with 85% of wildfires being human-caused, and about 52% were negligently or intentionally started.[12] There is a low wildfire hazard within the City boundaries, but a moderate to high hazard exists in the wild-urban interface East of the city. Granite Falls is within an interface community, meaning it "exists where structures directly abut wildland fuels," putting the community at an increased risk of wildfires, as the surrounding woods can provide potential fuel to wildfires.[13,14] Some trees are more hazardous (dead or diseased trees, over crowded trees, trees with more ladder fuels, or specific species), which can increase risk. Wildfires pose risks that include strain on the resources of local fire agencies, power outages, and road and highway closures, which may impact fire response. This can disproportionately affect residents who rely on powered medical equipment, people without vehicles to evacuate, and groups that are sensitive to unhealthy air quality, especially the elderly.[15]	Likely - same risk as the County. This is due to Granite Falls' geographical location, vegetation type/density, and the increasing presence of climate change. Climate change will lead to increased heat and drought which help to fuel fires, increasing the probability of wildfires. Over the next 30 years, Granite Falls is predicted to have a moderate risk of wildfire.[16]
Dam Failure	Dam failure may result in a medium impact in Granite Falls due to regional transportation disruptions, isolation, and delayed emergency response. Although Culmback Dam has had no issues of concern for dam failure in its 55-year history and has consistently received FERC's highest safety rating of "satisfactory" during annual inspections, Granite Falls remains vulnerable to indirect impacts from a dam failure scenario.[17] Granite Falls is outside the direct inundation zone of the Culmback Dam and upper Sultan River, reducing the likelihood of severe structural flood damage within the city. However, in the event of a Culmback Dam failure, severe downstream flooding could occur in Sultan and along the Sultan River corridor, disrupting regional transportation networks and emergency service	Possible - same probability as the County. Extreme heat and cold as a result from climate change can affect the structural integrity of dams. Increased heavy rainfall can lead to erosion and scouring near dams, while rising temperatures can lead to faster evaporation, which may

[12] Washington State Department of Natural Resources. Accessed August 2025. "Washington Large Fires 1973-2023."
[13] Ibid.
[14] Snohomish County Emergency Management. 2015. "Update Hazard Mitigation Plan Volume 2: Planning Partner Annexes. Chapter 8: City of Granite Falls Annex"
[15] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."
[16] First Street. "https://firststreet.org/city/granite-falls-wa/5327995_fsid/fire"
[17] Snohomish County Public Utility District. Accessed August 2025. "https://www.snopud.com"

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
	routes that connect Granite Falls to surrounding communities. Critical access routes, including State Route 92 and connections to U.S. Highway 2, may be obstructed or indirectly impacted, limiting evacuation and access to medical care, utilities, and essential goods. Dam failure may occur suddenly with little warning and may be triggered by overtopping caused by floods, structural failure, or acts of sabotage.[18] Direct physical impacts within Granite Falls would likely be Low Impact, as the city is outside the direct inundation zone and severe structural damage is unlikely. However, indirect disruptions to transportation and critical services could result in Medium Impact due to potential shutdowns of access routes and emergency services for up to two weeks. The major consequence of dam failure in Granite Falls is likely temporary isolation and service disruption rather than widespread inundation.	weaken structures over time.[19]
Volcano	Volcanic eruptions are expected within the region, but could cause minimal to low impact on Granite Falls. The City is not located within near-volcanic hazard or lahar zones from the county's volcano, Glacier Peak.[20] However, the entire area of Granite Falls could be uniformly impacted by settling ash. It can negatively impact air quality, which can cause health problems, especially to older residents (about 13% of Granite Falls residents are over 65).[21] In the event of a Glacier Peak eruption, if the SR 530 is entirely cut off, Darrington residents may need to be evacuated through the Mountain Loop Highway and through Granite Falls. Extreme ashfall could also impact the Stillaguamish River Basin through sedimentation, impacting natural resources. Volcanic eruptions could lead to minor health and natural resource impacts.	Possible - same probability as the County. Climate change may slightly increase the probability of volcanic activity through melting glaciers.
Mass Earth Movement	Mass Earth Movements pose a significant risk to Granite Falls due to the medium potential impact, exacerbated by its vulnerability to isolation and climate change. Mass earth movements are often triggered by other natural hazards, namely earthquakes. The soil type puts certain areas at increased risk of landslides, as more liquefiable soils have the potential to become landslides.[22] Granite Falls boundaries lie within the low to moderate range of liquefaction susceptibility. The	Likely - The County lists probability as "possible." However, considering Granite Falls geographic location and that it has experienced four occurrences in the past six years, it is at a higher risk than the County

[18] Federal Emergency Management Agency. Accessed August 2025. National Dam Safety Program. "
[19] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1." p. 96.
[20] Snohomish County (2025, September). *Draft Hazard Mitigation Plan Draft Volume 1*.
[21] U.S. Census Bureau, 2024 American Community Survey 5-Year Estimates, Table S0101 (Age and Sex).
[22] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
	southern and northwest portions of the city have moderate to high liquefaction susceptibility. There is a risk of landslides within and around Granite Falls along steep slopes and developed areas. Granite Falls is particularly vulnerable to landslides in January, as they are more likely to occur then from the water table that has risen from previous months.[23] Additionally, Granite Falls would be at increased risk of mass earth movement in the aftermath of a wildfire from the loss of vegetation and soil stability.[24] Landslides risk lives, homes, essential utilities, and critical ecosystems in Granite Falls and could further isolate the community from blocked or destroyed roads, notably the Mountain Loop Highway.	level. The presence of a wildfire, heavy rains, or an earthquake increases the likelihood of mass earth movement in Granite Falls. Climate change may increase the probability of mass earth movement– like rock fall, slumping, and land and mud slides– due to an increase in temperature, an increase in heavy rain events, the soil's water content, and melting snowpack.
Disease Outbreak	Disease outbreaks may result in a medium impact in Granite Falls due to limited local healthcare capacity, reliance on nearby cities for advanced medical services, and frequent regional commuting patterns that may increase opportunities for disease introduction and spread. According to the American Community Survey, approximately 82% of Granite Falls workers commute by car or carpool, increasing daily exposure to regional transmission pathways and person-to-person contact.[25] Granite Falls' small community structure and regular local events may further increase close-contact interactions and facilitate disease transmission. Disease outbreaks may place increased strain on local healthcare resources and emergency services and disrupt schools, childcare, local businesses, and access to essential services, particularly for vulnerable populations. The major consequence of disease outbreaks in Granite Falls is likely disruption to public health systems and community services rather than physical damage to infrastructure.[26]	Possible – same probability as the County. Climate change can increase the likelihood of pandemics and worsen their impact. Climate change can affect the speed of transmission and promote establishments.[27] Furthermore, longer summers, milder winters, and more extreme weather events and other environmental changes are making it easier for mosquitos, ticks, animals and infectious germs to persist for longer and spread more easily.[28]

[23] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."
[24] Ibid
[25] U.S. Census Bureau. Accessed April 2026. "ACS 5-Year Estimates Subject Tables: S0802 Means of Transportation to Work by Disability Status."
[26] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."
[27] Ernst, K.C., A.R. Crimmins, S. Anenberg, M.H. Hayden, B.O. Hoppe, L.J. Mickley, D.E. Peck, H.J. Tanana, and J.J. West. "Focus on COVID-19 and Climate Change." In *Fifth National Climate Assessment*, edited by A.R. Crimmins, C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart,

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
Hazardous Materials	Hazardous material spills have a low probability in Granite Falls but a medium potential impact. The city has several roads with shipping routes, is located near a petroleum product pipeline, and has several Tier II facilities. A spill along the Mountain Loop Highway could be particularly disastrous, as it could impact the Stillaguamish River and other natural resources. The Pilchuck River and both the Mountain Way Elementary School and Granite Falls High School are located near SR 92, representing additional vulnerabilities. Despite low probability, the proximity of vulnerable populations and natural resources to potential spills creates elevated risk.	Possible. The County plan lists the likelihood as "likely", but Granite Falls has the least concentration of Tier II facilities in the County and is not located along one of the major transportation routes or rail. No incidents have been reported in Granite Falls.[29] Climate change increases the probability of hazardous materials leaks through events like flooding, wildfire, landslides, and extreme weather events.
Flood	Floods pose a high risk to Granite Falls due to the medium potential impact, intensified by its vulnerability to isolation and climate change. Increased precipitation may increase the likelihood of flooding as it has the potential to develop rapidly or over a long period of time.[30] Northern Granite Falls lies within the South Fork of the Stillaguamish watershed and the southern portion in the Snohomish watershed.[31] A small portion in the southern end of the city is within the 100-year (1% annual chance) flood hazard.[32] The majority of commercial zones are in low-risk areas, but residential structures in the northeast and south parts of the city are at a higher risk. A primary concern for flooding within Granite Falls lies outside city boundaries, which may risk evacuation efforts by damaging or obstructing essential utilities, roads, and highways, notably the Mountain Loop Highway. This may also cause Granite Falls to experience isolation, cutting the	Likely - Same as county. Climate change has increased the probability of precipitation in the northwest of the United States, which leads to an increased risk of flooding in Granite Falls.[33] River flooding is expected to increase in Granite Falls as a result of climate change due to the combined effects of wetter winters, more intense heavy rain events,

and T.K. Maycock. Washington, DC: U.S. Global Change Research Program. (2023).

[28] Centers for Disease Control and Prevention. *Climate and Infectious Diseases*. National Center for Emerging and Zoonotic Infectious Diseases. (March 21. 2024). https://www.cdc.gov/ncezid/topics-programs/climate-infectious-disease.html.

[29] US Department of Transportation. Pipeline and Hazardous Materials Safety Administration. Accessed April 2026. "Hazmat Incident Database."

[30] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."

[31] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."

[32] FEMA (n.d.). Flood Data Viewers and Geospatial Data. https://www.fema.gov/flood-maps/national-flood-hazard-layer

[33] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
	city off from emergency and essential services, as well as family members and jobs, particularly on Paradise Lane due to proximity to the Pilchuck and South Fork Stillaguamish Rivers. NFIB is not applicable in Granite Falls.	and more winter precipitation falling as rain rather than snow. Flooding in the South Fork Stillaguamish River can impact roadways around the Granite Falls area and close Mountain Loop Highway.[34] Currently, a 1-in-100 year flood event has a 26% chance of occurring at least once over a 30-year period, this likelihood will only increase due to climate-related effects. Under high greenhouse gas scenarios, the South Fork Stillaguamish River stream value is projected to change 11-12% increase over the next 30 years, while the Pilchuck River is projected to increase 5%.[35]
Cybersecurity Threats	Cybersecurity threats may result in a medium impact in Granite Falls due to disruptions to communication systems, emergency coordination, and utility services that residents rely on for daily activities and commuting. Cybersecurity incidents may occur with little warning and can disrupt digital networks, communication platforms, and interconnected infrastructure systems at the local or regional level. Because Granite Falls is primarily a residential community with many residents depending on regional systems and external service providers, disruptions occurring outside the city may affect access to services, transportation coordination, and emergency response.[36] Cybersecurity incidents may reduce situational awareness, delay emergency communications and operations, and create cascading impacts across interconnected systems. The major consequence of cybersecurity threats in Granite Falls is likely disruption to essential services and emergency coordination rather than physical damage to	Possible – same probability as the County. While direct cybersecurity incidents within Granite Falls may be less frequent, the city's reliance on regional communication, emergency coordination, and utility systems increases the likelihood of impacts from disruptions occurring outside its jurisdiction.

[34] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1." p.138.
[35] Climate Impacts Group, University of Washington. *Climate Mapping for a Resilient Washington*. (2024). https://data.cig.uw.edu/climatemapping/.
[36] Ibid.

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
	infrastructure.	
Severe Weather Events	Severe weather events can have a medium impact on Granite Falls through flooding, destruction to critical facilities, and potential isolation. “High Winds and Rainstorms, etc., increase adverse impacts in the City due to large conifer tree canopies in areas of the City which are prone to damage from limbs, localized flooding in older neighborhoods with no stormwater conveyance systems, and older buildings which are susceptible to storm damage”.[37] Residents living on Paradise Lane may be susceptible to flooding of the Pilchuck River. Residents living in the North East portion of the city in unincorporated areas may face an elevated risk of trees falling and road closures. The serious risk to Granite Falls is isolation if severe weather events lead to road closures from felled trees, landslides, or flooding. Hazardous trees, discussed in the wildfire section, pose a greater risk. Flooding within the city during extreme events can occur in areas when stormwater conveyance systems become overwhelmed.	Likely - same probability as the County. Climate change increases the probability of severe weather events. Snohomish County is expected to experience more intense rainfall through 2050 and beyond, meaning more frequent and intense storms[38].
Aircraft Accident	Aircraft accidents pose a low risk to Granite Falls with low potential impact. Aircraft accidents most commonly occur close to airports, putting Granite Falls at low risk due to one privately owned airport with relatively low air traffic located outside of city limits.[39] Aircraft accidents are localized events that have a small	Possible - same probability as the County.

[37] Snohomish County Emergency Management. 2015. “Update Hazard Mitigation Plan Volume 2: Planning Partner Annexes. Chapter 8: City of Granite Falls Annex”.
[38] Snohomish County. Community Wide Climate Resilience Plan
[39] Snohomish County Emergency Management. 2026. “Draft 2025 Hazard Mitigation Plan – Volume and have a 1.”

Hazard	Hazard Risk, Vulnerability, and Impact Summary	Probability of Future Occurrence
	overall impact.[40] There has been one incident of an aircraft accident near Granite Falls in 2014 with one fatality, though the risk remains low.[41]	
Extreme Heat & Drought	The entire area is at risk. However, areas with a higher concentration of concrete and less vegetation (urban heat islands) experience higher temperatures on hot days. Extreme heat and drought may result in a medium impact in Granite Falls due to increased temperatures, prolonged heat events, and strain on healthcare, water systems, and essential services. During prolonged heat events and drought periods, Granite Falls may face challenges in responding due to its limited local healthcare capacity and reliance on nearby cities such as Everett for medical services.[42] Increased demand for care may exceed local capacity and delay access to treatment. In addition, drought conditions and higher temperatures may place added stress on local water systems and regional infrastructure, increasing vulnerability during extended heat and drought periods. The major consequence of extreme heat and drought in Granite Falls is likely strain on healthcare systems, water supply, and essential community services.	Likely – same probability as the County. Increasing temperatures and longer heat events are expected to occur more frequently, increasing the likelihood of impacts in Granite Falls. Climate Change increases the probability of extreme heat and drought. For Snohomish County, there is predicted to be 8 to 20 more days of extreme heat events every year[43].
Active Assailant	Short, localized attacks are possible in populated areas of the city and could have a low impact. There is an elevated risk in open spaces, schools, and large gathering events. Granite Falls hosts weekly summer farmer's markets and annual events, such as the Railroad Days, Show n' Shine Car Show, and a Halloween block party. While several homicides have occurred in the past 10 years, no active assailant incidents have been documented in Granite Falls.[44] Granite Falls overall risk is low due to the city's low population.	Possible. The county plan lists the probability as "likely". However, Granite Falls has a considerably smaller population than other cities in the county, such as Everett (over 110k) or Marysville (70k), so an active assailant event is less likely.

[40] Ibid.

[41] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."

[42] Snohomish County Emergency Management. 2015. "Update Hazard Mitigation Plan Volume 2: Planning Partner Annexes. Chapter 8: City of Granite Falls Annex".

[43] Snohomish County. Community Wide Climate Resilience Plan

[44] Snohomish County Archives. Access April 10, 2026. "Archive Center • Sheriff Press Releases".

Table X.3 is an assessment of the exposure of critical infrastructures and facilities within the county, organized by the 16 critical infrastructure sectors designated by the Cybersecurity and Infrastructure Security Agency (CISA).[45] Data is collected by voluntary submission from partner agencies and may not be accurately tracked or mapped. As such, some data may be incomplete. Risk summaries were based on the locations of the known facilities in the database.

Table X.3 Granite Falls Assets at Risk

Critical Infrastructure Sector	Number of Structures	Hazard Risks Summary
Chemical	0	Primary – N/A; No facilities present. Secondary – Potential chemical exposure from transportation incidents regarding hazardous materials; Air or water contamination from adjacent jurisdictions
Commercial Facilities	Entertainment: 0 Gaming: 0 Lodging: 0 Outdoor events: 9 Public Assembly: 0 Real Estate: 4 Retail: 1 Sports Leagues: 0	**Outdoor events:** Primary – Wildfire, Flooding, Earthquake, or Severe Weather damage to event grounds or parks; Structural damage to temporary setups or park equipment Secondary – Event cancellations; Economic loss to local vendors; Emergency response strain during large gatherings **Real Estate:** Primary – Wildfire, Flooding, Earthquake, or Severe Weather structural damage to buildings or stored goods; Utility system damage Secondary – Displacement of residents; Insurance or financial impact; Housing strain **Retail:** Primary – Earthquake or Severe Weather structural damage to storefronts; inventory loss Secondary – Business interruption; Job loss; Overall reduced local economic activity
Communication	10; Full coverage fixed, hybrid broadband.	Primary – Wildfire, Flooding, Earthquake, or Severe Weather structural damage to cell towers, antennas, or fiber optic cables; Exposure of underground fiber optic cables

[45] Cybersecurity & Infrastructure Security Agency. Accessed September 2025. "Critical Infrastructure Sectors."

Critical Infrastructure Sector	Number of Structures	Hazard Risks Summary
		Secondary – Loss of cell service/communication outages; Interrupted 911 dispatch; Internet outages; Remote work disruption and reduced access to remote services; isolation.
Critical Manufacturing	4	Primary – Earthquake or Severe Weather damage to equipment and structures/power loss Secondary – Interruption of specialized repair/manufacturing services; Economic impacts to local industrial workforce
Dams	0	Primary – N/A; No facilities present. Secondary – Downstream flooding impacting transportation, utilities, emergency response, structural health, and local economy.
Defense Industrial Base	0	Primary – N/A; No facilities present. Secondary –
Emergency Services	3	Primary – Earthquake or Severe Weather damage to equipment and structures/power loss Secondary – Delayed emergency response; Reduced operational capacity; Slower recovery overall for local community
Energy	6; Electrical transmission lines; Gas distribution lines	Primary – Landslides, Flooding, Earthquakes, Wildfires, and Severe Weather damage to distribution lines and critical Energy buildings Secondary – Prolonged power outages; Gas service/fuel supply disruption; Ripple effect in other sectors; Increased reliance on backup generators; Blockage preventing repair crews from accessing Energy components; Economic loss; Prolonged recovery
Financial Services	2	Primary – Earthquake or Severe Weather damage to physical structure Secondary – Disruption of banking and payment systems; Delays in insurance and disaster recovery funding; Cybersecurity vulnerabilities during disruptions
Food and Agriculture	15	Primary – Earthquake, Wildfire, Severe Weather damage to structure or food supplies Secondary – Inventory shortages and food distribution disruption; Economic loss;

Critical Infrastructure Sector	Number of Structures	Hazard Risks Summary
		Limited food access; Spoiled food causing disease outbreak
Government Services and Facilities	12	Primary – Earthquake, Wildfire, Severe Weather damage to physical structure; Active Assailant threats to student or staff safety Secondary – Delayed student development; incident-related trauma; closure and disruption of government operations; Loss of personal/governmental records; Delays in emergency response/coordination
Healthcare and Public Health	6	Primary – Earthquake and Severe Weather damage to structure or equipment Secondary – Limited access to care; Increased strain on nearby health facilities; Workforce displacement; Disruption of routine medical services
Information Technology	0	Primary – N/A; No facilities present. Secondary – Multiple sectors affected simultaneously; Disruptions in city administrative services, healthcare, education, supply chain, etc.
Nuclear Reactors, Materials, and Waste	0	Primary – N/A; No facilities present. Secondary – Minimal exposure to impacts from regional nuclear accidents; Precautionary public health measures, such as shelter in place, may be needed
Transportation Systems	28	Primary – Flooding, Earthquake, Severe Weather, and ashfall from volcanic event damage to road infrastructure, bus stops, or post office; Landslide-produced blockages on roads Secondary – Delays in evacuation; Delays in emergency response and recovery; Isolation; Economic disruption; Delivery service disruption; Multiple sectors affected simultaneously
Water and Wastewater Systems	2,631	Primary – Severe Weather and precipitation damage to stormwater infrastructure; Earthquake, Liquefaction, and Flooding damage to the overall water system. Secondary – Public health crises; Water contamination; Ecological damage; Strain on city budget due to costly repairs

X.4 Plan Update Process

This section includes: Granite Falls planning team, subject matter experts, the plan update timeline, and public outreach. The Granite Falls update process included engagement of Granite Falls staff, partner agencies, and the public. The process began with attending Snohomish County lead mitigation planning meetings. A Granite Falls planning team was identified and met to review inputs, outreach, and deliverables. Team members worked within their respective programs to develop content and perform outreach throughout the planning process. UW's Livable City Year was hired to develop this Hazard Mitigation Plan (HMP). UW graduate students in the Master of Urban Planning program were selected to complete this task. This started with creating an Initial Conditions Report from January to March which helped determine the priorities, goals, and needs of the city when it came to hazard mitigation. Once this was completed in late March, students moved to develop the HMP to include two public outreach activities (see table X.6) and multiple meetings in coordination with Granite Falls and Snohomish County. The final report was brought before Granite Falls City Council on June 3rd, 2026.

Table X.4 shows the Granite Falls' internal planning team for developing this Hazard Mitigation Plan.

Table X.4 Granite Falls Planning Team

Name	Title	Organization	Contribution
Brent Kirk	Deputy City Manager	City of Granite Falls	Coordinated visits, reviewed drafts, and provided information.
Amy Hess	Planning Director	City of Granite Falls	Coordinated visits, reviewed drafts, and provided information.
Charles White	Public Works Director	City of Granite Falls	Conducted Site Visits, reviewed drafts, provided information

Subject Matter Experts

Granite Falls has benefited through the years from partnerships and collaboration in all phases of emergency management (prevention, mitigation, preparedness, response, and recovery). The following discipline partners provided subject matter expertise throughout this mitigation planning effort:

- Snohomish County Department of Emergency Management
- Snohomish County Fire Chiefs Association

- Snohomish County Emergency Management Coordination Committee & subcommittees
- Snohomish County Departments (Department of Conservation and Natural Resources, Health Department, Human Services, Planning and Development Services, Public Works, Office of Energy and Sustainability)
- Washington State departments (Emergency Management Division, Department of Natural Resources, Department of Ecology, Washington Geological Survey, Department of Transportation)
- Federal agencies (National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), United States Army Corps of Engineers, United States Forest Service)

Table X.5 details the major milestones and meeting dates in the Granite Falls plan update timeline. The local planning started in 2025.

Table X.5 Granite Falls Plan Update Timeline

Date	Planning Activity	Summary	Attendees
3/26/2025	HIRA Survey Kick-Off	Email was sent out with the full HIRA survey to all planning members with invites to eight office hour meetings with the Project Team for any questions.	All Public Planning Committee Members
4/10/2025	Annex Partner Planning Team	Kick-off meeting for annex planning partners. Gave planning partners an overview of the HMP planning process and explained the update methodology and update timeline. Reviewed their initial HIRA survey results.	Project Team, Annex Planning Partners
5/8/2025	Annex Partner Planning Team	Discussed all Goals and Objectives and proposed updates.	Project Team, Annex Planning Partners
6/12/2025	Annex Partner Planning Team	Finalized suggested changes for the updated draft Goals and Objectives. Discussed the updated hazards and held a workshop to identify potential impacts and cascading impacts for each hazard.	Project Team, Annex Planning Partners
7/10/2025	Annex Partner Planning Team	Reviewed the methodology used to collect updated Critical Infrastructure and Key Resources data. Discussed how the County would be integrating hazard mitigation planning with the Capital Improvement Plan. Reviewed and approved the questions for the	Project Team, Annex Planning Partners

		Public Survey.	
8/11/2025	Critical Infrastructure and Key Resources (CIKR) Update Tool Kick-Off Email	Email was sent out with the instructions for how to update CIKR information. Partners had two options: update the information manually using the tool (for partners without GIS capabilities) or submit the data to the Project Team.	Project Team, Annex Planning Partners
9/11/2025	Annex Partner Planning Team	Discussed countywide mitigation strategies and approved the strategies. Reviewed the timeline for completing the Base Plan.	Project Team, Annex Planning Partners
10/9/2025	Annex Partner Planning Team	Review and discuss any partner comments for the draft plan. Discuss the timeline and process for annex development.	Project Team, Annex Planning Partners
11/13/2025	Annex Partner Planning Team	Reviewed any public comments that were submitted during the public comment period and how they were integrated into the plan. Approve the final draft of the base plan.	Project Team, Annex Planning Partners
Fall 2025	Third-party consultant hired (UW's Livable City Year)	UW's Livable City Year coordinated with Snohomish County and the City of Granite Falls to be a consultant and develop the Granite Falls Hazard Mitigation Plan by July 2026	Snohomish County, City of Granite Falls, UW's Livable City Year
01/07/2026	City of Granite Falls presented the HMP goals and requirements	The city of Granite Falls had a Zoom call with the UW students and instructors tasked with developing the Hazard Mitigation Plan.	City of Granite Falls (Deputy City Manager and Planning Director), UW's Master of Urban Planning collaborators
01/16/2026	Site visit throughout the City of Granite Falls	The city of Granite Falls conducted a tour of the city with UW students and instructors. This visit included traveling to the wastewater treatment plant, lift stations, Bridge 102, wells near the library, and city hall.	City of Granite Falls (Deputy City Manager, Planning Director, and Public Works Director), UW's Master of Urban Planning collaborators
03/11/2026	Presentation of the Initial Condition Report (ICR) at the city council meeting	UW's Master of Urban Planning collaborators presented the ICR to Granite Falls' City Council, which conducted a comprehensive review of the City of Granite Falls and the surrounding areas in preparation	Granite Falls City Council and City officials, local residents at the meeting, and UW's Master of Urban Planning collaborators

		for developing the HMP.	
05/06/2026	UW's Master of Urban Planning collaborators presented the Risk Summary	UW's Master of Urban Planning collaborators presented the Risk Summary portion of the HMP (over Zoom) to the City of Granite Falls and Snohomish County representatives, and they provided feedback.	Snohomish County Resilience and Mitigation Program Analyst, City of Granite Falls (Deputy City Manager, Planning Director), UW's Master of Urban Planning collaborators
05/17/2026	UW's Master of Urban Planning collaborators set up a booth/table for community feedback at the Sky Valley 29th Annual motorcycle show in Granite Falls	This was a table set up outside during the event, open to anyone. Attendees (city residents) were asked to help identify high-risk areas, which hazards are of greatest concern, and what mitigation strategies should be prioritized. QR codes for the online survey were also distributed.	UW's Master of Urban Planning collaborators and local residents
06/03/2026	UW's Master of Urban Planning collaborators presented the final draft of HMP at the city council meeting	UW's Master of Urban Planning collaborators presented the HMP to Granite Falls' City Council.	Snohomish County Resilience and Mitigation Program Analyst, Granite Falls City Council and City officials, local residents at the meeting, and UW's Master of Urban Planning collaborators
06/10/2026	UW's Master of Urban Planning collaborators delivered the completed HMP to Granite Falls	UW's Master of Urban Planning collaborators delivered the HMP to Granite Falls.	Submitted to Deputy City Manager and Planning Director

Public Outreach

Table X.6 shows the public outreach efforts for Granite Falls. An online survey with 7 questions was released through the City of Granite Falls website and city alert text feature. The public survey asked respondents which hazards are perceived to pose the greatest risk, gauge concern about isolation and preparedness levels, and identify which mitigation strategies should be prioritized. In-person engagement took place at the Sky Valley 29th Annual Motorcycle Show on May 17, 2026. This event was held in downtown Granite Falls. Attendees were asked to help identify high-risk areas, which

hazards are of greatest concern, and what mitigation strategies should be prioritized. QR codes for the online survey were also distributed.

Survey Results

Of 37 responses, the online survey showed the top three concerns among Granite Falls residents to be wildfire (29 votes), severe weather (18 votes), and earthquake (15 votes) (See Figure 1). The survey also identified that community members worry about not being able to evacuate (24 votes) and having access to food and water (22 votes) in the event of a hazard. To inform mitigation strategy development, the survey also asked which categories of strategies the community would prefer.”Provide more community education and support” (25 votes) and “fix or improve roads, buildings, or other public spaces” (23 votes) were the most popular (See Figure 2).

In-Person Event Results

At the Sky Valley 29th Annual Motorcycle Show in downtown Granite Falls, members of the HMP drafting team spoke with residents about their concerns about hazards and what they believe the city can do to mitigate risk. A large map of the city and a poster board with survey questions 2 and 6 (See Figures 1 & 2 and Appendix 1) were provided to facilitate conversation and attract residents to the table. Residents frequently expressed concerns about earthquakes, wildfires, and landslides, often referencing the 2014 Oso landslide. Many identified replacing Bridge 102 as a top priority.

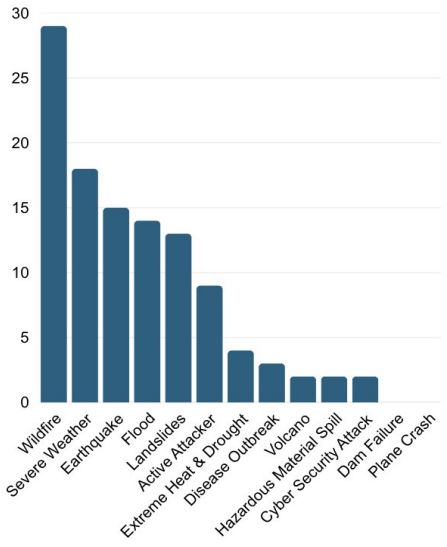

Figure 1. Results of survey question 2: Which three hazard events do you think are the biggest threats to Granite Falls?

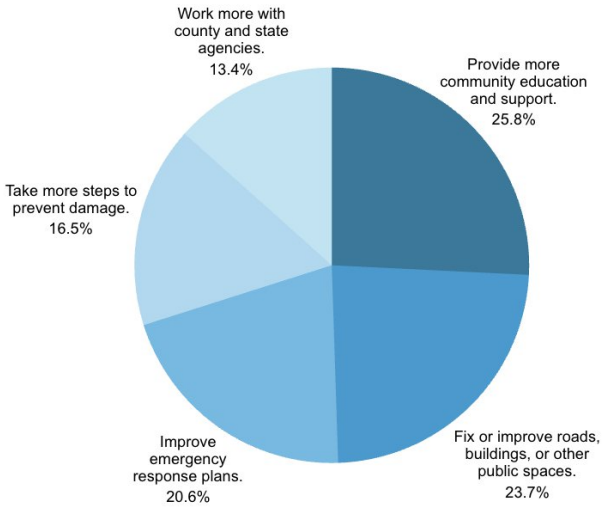

Figure 2. Results of survey question 6: What do you think the City of Granite Falls could do to help with hazards?

Overall, wildfires and earthquakes were identified as major concerns in both the in-person event and the online survey. The community also expressed a desire to fix roads and bridges, and to improve access to community education through both public outreach formats. This input ultimately informed the selection of the plan's mitigation strategies. It is also recommended that Granite Falls continue its engagement with the community on this topic, particularly to fulfill residents' desire to learn more about how hazards might affect them and how they may best prepare (See Hazard Mitigation Strategies GF-05 through GF-08).

Table X.6 Granite Falls Public Outreach

Date	Event/Activity	Summary	Attendees
May – September 2025	HMP Public Survey	The public survey asked respondents to help identify hazards in the community and what activities and projects should be prioritized	133 responses
October 1-31, 2025	HMP Public Comment Period	Community members were provided with the draft HMP from October 1st to October 31st, 2025 on the county's website and informed of the availability of the plan through the DEM newsletter which was sent to over 14,000 subscribers, and announcements on DEM's social media accounts	(Update after Public Comment Period ends 10/31)
April 14 – May 20, 2026	HMP Public Survey	The public survey asked respondents which hazards are perceived to have the greatest risk, gauge concern about isolation and preparedness levels, and what mitigation strategies should be prioritized. The survey was released through the City of Granite Falls website.	37 responses
May 17, 2026	HMP Public Outreach Event– Sky Valley 29th Annual Motorcycle Show	This event was held in downtown Granite Falls. Attendees were asked to help identify high-risk areas, which hazards are of greatest concern, and what mitigation strategies should be prioritized. QR codes to the online survey were given out as well.	Approximately 30 participants

X.5 Granite Falls Hazard Mitigation Program

Hazard mitigation strategies were developed through a two-step process. Granite Falls developed, with an internal planning team and UW graduate students, a comprehensive range of mitigation strategies. These strategies were then prioritized and documented.

Hazard Mitigation Authorities, Responsibilities, and Capabilities

Planning and regulatory capabilities include the plans, policies, codes, and ordinances that mitigate the impacts of hazards. Table X.7 outlines Granite Falls' planning and regulatory capabilities.

Table X.7 Granite Falls Plans, Programs, Policies, and Processes

Name	Responsible Agency	Relationship to Hazard Mitigation Plan
City of Granite Falls Comprehensive Plan 2044 (2024)	Planning and Development Services	Provides the framework for the long-range vision of the City, used to verify mitigation projects fit into the holistic approach to growth, development, sustainment, and the community.
Comprehensive Water System Plan (2023)	Public Works	Provides a planning strategy for the City's utilities over 10-year and 20-year planning periods.
Comprehensive Emergency Management Plan (CEMP)	City Manager	Provides the framework for the actions of the county and the city in the event of an emergency in Granite Falls. Establishes an all-hazards approach to enhance the City of Granite Falls' ability to manage emergencies and disasters.
Comprehensive Wastewater Facility Plan (2016)	Public Works	This Plan focuses on three primary areas, including: (1) The Westside (Burn Road); (2) Mountain Loop Highway; and (3) the Southeast portion of the City's Urban Growth Area (UGA).
Stormwater Management Action Plan (2025 draft)	Public Works	This plan describes how the stormwater system is managed throughout the city.
Six-year Transportation Improvement Plan (2026)	Public Works	This document tracks the transportation projects planned for the next 6 years, which may affect egress and ingress during a hazard event.
Municipal Codes	Planning and Development Services	Manages the city's codes that affect daily activities, which can inform actions to mitigate risks.
Land Use Planning and Zoning	Planning and	Manages and approves the city's overall

	Development Services	land use and zoning.
Annual Budget	Finance Director	Plans and manages the funding that supports the mitigation strategy funding.

Administrative and technical capabilities include staff and their skills and resources that may be leveraged for mitigation planning and implementation. Table X.8 shows the Administrative and technical capabilities for Granite Falls.

Table X.8 Administrative and Technical Capabilities for Hazard Mitigation

Name/Title	Point of Contact	Responsibility
Comprehensive Emergency Management Plan (CEMP)	Emergency Management Coordinator (City Manager)	Prepare, maintain, and update the Granite Falls Comprehensive Emergency Management Plan
GIS	Granite Falls Public Works Director	Manage online map/GIS data portal
Grant Writing/Management	Planning Director, City Manager	

National Flood Insurance Program (NFIP)

The City of Granite Falls does not participate in the National Flood Insurance Program (NFIP).

Plan Monitoring, Implementation, and Future Updates

Snohomish County leads the mitigation plan monitoring and update process and schedules the annual plan check-ins. Updates on mitigation projects are solicited by the county for inclusion in the countywide Annual Progress Report. As part of participating in the 2025 update to the Hazard Mitigation Plan, every jurisdiction agrees to attend an annual meeting of the Public Planning Committee to review their progress on hazard mitigation strategies and to update the plan based on new data or recent disasters.

As part of leading a countywide planning effort, the Snohomish County Department of Emergency Management (DEM) will distribute to planning partners any federal notices of funding opportunity for the Hazard Mitigation Assistance Grant Program. Proposals from partners will be assessed according to the prioritization process identified in this plan, and the county will, where possible, support those partners submitting grant proposals. This will be a key strategy to implement the plan.

The next plan update is expected in 2030. All jurisdictions will submit letters of intent by 2028, at least two years prior to plan expiration. The county will lead the next countywide planning effort, beginning at least 18 months before the expiration of the 2025 plan.

Continued Public Participation

Snohomish County and its partner cities already maintain substantial public outreach capabilities, focusing on personal preparedness and education. Information on ongoing progress in implementing the hazard mitigation plan will be integrated into public outreach efforts. This will provide Snohomish County residents, already engaged in personal preparedness efforts, with context and the opportunity to provide feedback on the county's progress and priorities in large-scale mitigation. In the vertical integration of risk-reduction activities from personal to local to state and federal, it is important that the public understand how its activities support, and are supported by, larger-scale efforts.

X.6 Hazard Mitigation Strategies

Due to Granite Falls' isolated geographic location and reliance on essential services from cities such as Everett, it is defined as a 'population island', "where mobility outside of the immediate area may be significantly limited, or impossible"[46]. This isolation places Granite Falls at heightened risk of being cut off from emergency services and water supply during a hazard event, with direct consequences for residents' essential needs and access to medical care. The 12 strategies outlined in this section were developed using FEMA's *Local Mitigation Planning Handbook* and aim to address vulnerabilities stemming from this isolation and mitigate the impacts of the 13 identified hazards.

Table X.9 Summarizes the status of the 2015 Hazard Mitigation Strategies for Granite Falls. The most recent Hazard Mitigation Strategy for Granite Falls was in 2015 as an Annex to the Snohomish County HMP. Below are strategies listed in the 2015 plan, updated with their current status as of the development of this updated HMP.

Table X.9: 2015 Hazard Mitigation Strategies Status

ID	Description	Priority	Status
GF-1	Determine structural vulnerability of older structures on NEHRP D and E soils and seismic retrofit.	Medium	Removed
GF-2	Replace or retrofit vulnerable critical utility infrastructure.	Medium	Ongoing
GF-3	Educate the public on vegetation management practices to reduce risk to homes.	High	Ongoing

[46] Snohomish County Emergency Management. 2026. "Draft 2025 Hazard Mitigation Plan – Volume 1."

GF-4	Maintain and clear storm drains and culverts.	High	Ongoing
GF-5	Promote open space uses in identified high-hazard areas by use of setbacks, greenways, and environmentally sensitive areas.	High	Ongoing
GF-6	Promote non-structural seismic retrofitting for residential structures on NEHRP D and E soils.	Medium	Removed
GF-7	Educate the public on fire prevention and policy by: a) restricting hazardous activities during high-risk times, b) encouraging residents to store water on-site and clear defensible space along structures, and c) manage fuel loads through controlled burns or harvesting.	High	Ongoing
GF-8	Support all county-wide initiatives related to Hazard Mitigation.	High	Ongoing
GF-9	Continue to maintain compliance and good standing under the National Flood Insurance Program (NFIP).	High	Removed
GF-10	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable.	Medium	Removed
GF-11	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in the SCHMP.	High	Ongoing
GF-12	Integrate, where appropriate, risk assessment information from the Snohomish County Hazard Mitigation Plan into other planning mechanisms available to the City, such as the Capital Improvements program, the Comprehensive planning process, and Shorelines Master planning.	High	Ongoing

Table X.10 This table summarizes the 2026 Hazard Mitigation Strategies. FEMA's *Local Mitigation Planning Handbook* provides the framework for the four mitigation action types: Local Plans & Regulations, Structure & Infrastructure Projects, Natural Systems Protection & Nature-Based Solutions, and Education & Awareness Programs. The table is organized by priority, which is calculated using the Mitigation Action Prioritization Matrix in Appendix D of the Snohomish County HMP.

Table X.10: 2026 Hazard Mitigation Strategies

ID	Description	Lead Agency	Priority
GF-01	Develop a list of buildings/ areas to prioritize in the case of a disastrous event.	Public Works	High Benefit
GF-02	Avoid the damage to roads and transportation routes during hazardous events by continuing to support the 2044 Comprehensive Plan, Six-Year	Public Works	High Benefit

	Transportation Improvement Plan.		
GF-03	Consider alternative energy sources for future municipal development to decrease dependence on outside sources in the event of energy disruption or city isolation.	Planning and Community Development	High Benefit
GF-04	Incorporate emergency-response functions into the planned Granite Falls Community Center. The facility could serve as a community gathering space during normal conditions while also functioning as an emergency shelter, a clean-air and cooling center, a supply distribution site, and a preparedness education center during disasters.	Planning and Community Development	High Benefit
GF-05	Build on existing mutual aid networks to increase hazard awareness among residents and protect those living in vulnerable areas.	Public Works	High Benefit
GF-06	Expand and formalize hazard alert systems to reach all residents	Granite Falls City Admin w/ Snohomish County's Department of Emergency Management	High Benefit
GF-07	Initiate planning towards potable water supply development	Public Works	Medium Benefit
GF-08	Develop and hold community workshops about emergency preparedness	Planning and Community Development	Medium benefit
GF-09	Develop sustainability and resilience standards that codify hazard mitigation into planning documents.	Planning and Community Development	Medium Benefit
GF-10	Remove/trim unhealthy and hazardous trees to reduce wildfire risk and damage from severe weather.	Public Works	Medium Benefit

GF-11	Reduce damage during flooding and severe weather by increasing urban greening infrastructure, including bioswales, rain gardens, and permeable surfaces.	Public Works	Low Benefit
GF-12	Reduce the effect of mass earth movement and flooding by providing greater protection for natural features in the Stormwater Management Program	Public Works	Low Benefit

GF-01 Priority Facilities List

Understand resource prioritization during the response and recovery phases after hazard events by developing a list of public (and private) buildings that support key infrastructure systems, day-to-day operations, and important breakpoints most at risk of earthquake (shaking), wildfire (air filtration and susceptibility), severe weather, mass earth movement, and flooding**.** Considerations of frequency, severity, and impact should be included in the prioritization process. By anticipating potential needs and providing an agreed-upon list of areas/buildings that need implementation of mitigation strategies and strengthened redundancy, Granite Falls can better determine where and how to prioritize resources after future hazard impacts.

Hazard Mitigation Action Items

Lead Points of Contact (Dept): Public Works Department	Partner Points of Contact (Dept or Agency) *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?* Emergency Response, Snohomish County PUD	Hazards Mitigated / Goals and Objectives Supported: Earthquakes, wildfires, severe weather, mass earth movement, and flooding	Funding Sources and Estimated Costs: Low
Strategy Vision/Objective *Long-term objective and vision for the strategy* Prioritize resources during the response and recovery phases after hazard events by developing a list of public (and private) buildings that support key infrastructure systems, day-to-day operations, and important breakpoints most at risk of earthquake (shaking), wildfire (air			

filtration and susceptibility), severe weather, mass earth movement, and flooding.

Mitigation Strategy

Describe the program/proposed program

Administratively, Granite Falls will utilize institutional knowledge, emergency response personnel, utilities staff, and other technical experts to inform resource allocation prioritization for rebuilding and strengthening systems . Considerations for frequency, severity, and impact of hazard events should be included in the development of the prioritization. By anticipating potential resource needs based on an agreed-upon list of areas/buildings that provide essential services and would benefit from protection and rebuilding, Granite Falls can better determine where and how to prioritize resources after future hazard impacts.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Work with agency staff, emergency response personnel, and others as necessary to understand high-impact areas of Granite Falls and their risk susceptibility to high probability hazards.	Develop response and recovery strategies that reflect the developed list of prioritizations.	Maintain and update the prioritization list as infrastructure is changed or added, and as community needs change.

Implementation Plan/Actions

This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

1. Determine which city, county, and local representatives are best to be included in the process. Granite Falls Public Utilities Department, emergency response service staff, and Snohomish County Public Utilities Department staff, as well as personnel with a strong understanding of hazardous events and their impacts on Granite Falls, are recommended.
2. Evaluate and determine the prioritization list
3. Receive consensus among stakeholders on the prioritization response list
4. As needed, develop mitigation and implementation strategies in anticipation of future hazard events.
5. Update and maintain the list periodically as infrastructure is changed/increased or community and City needs are altered

Performance Measures Prioritization list developed and agreed upon among stakeholders.

Mitigation Action Benefit Cost-Review Matrix

1	Low cost	5
2	Addresses high-risk hazards - Earthquakes, wildfires, severe weather, mass earth movement, flooding	5
3	Supports 4+ goals: GF comp plan LU-1.5, LU-12.2, LU-12.6, CF-5.1, NE-5.2	5
4	Will produce significant and lasting public safety benefits for residents, businesses, and property.	5
5	Action will produce a benefit to underserved communities that are socially vulnerable - the target demographic is not explicitly stated, but will benefit	3
6	Strongly accounts for changes in development - increases infrastructure needs and growth affects priority areas	5
7	Accounts for the effect of climate change - Wildfire, severe weather, mass earth movement, and flooding	5
8	Action addresses hazard risks for the entire affected area of the community	5
	TOTAL:	38

GF-02 Transportation Resilience Improvements

To reduce transportation disruption during hazardous events, Granite Falls should continue prioritizing roadway maintenance and transportation improvement projects that support emergency access throughout the city. Using the 2044 Comprehensive Plan and the Six-Year Transportation Improvement Plan, the city should identify the transportation routes most vulnerable to flooding, severe weather, wildfire, mass earth movement, and earthquakes. As funding becomes available through Street CIF funds or grants, Granite Falls can complete transportation improvement projects alongside regular roadway maintenance to strengthen long-term transportation resilience and emergency access.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	**Partner Points of Contact (Dept or Agency)**	**Hazards Mitigated / Goals and Objectives Supported**	**Funding Sources and Estimated Costs**
Public Works Department	Snohomish County Public Works Snohomish County Department of Emergency Management Washington State Department of Transportation (WSDOT)	Flooding Severe Weather Earthquake Mass earth movement	Street CIF High

		Supports transportation, evacuation, and infrastructure resilience	

Strategy Vision/Objective
Long-term objective and vision for the strategy

Create a plan to maintain roads in order to ensure safe, reliable, and resilient transportation access throughout Granite Falls during hazardous events to support daily community activities, emergency response, evacuation, and overall community connectivity.

Mitigation Strategy
Describe the program/proposed program

To reduce transportation disruption during hazardous events, Granite Falls should continue prioritizing roadway maintenance and transportation improvement projects that support emergency access throughout the city. Using the 2044 Comprehensive Plan and Six-Year Transportation Improvement Plan, the city should identify transportation routes that are most vulnerable to flooding, severe weather, wildfire, mass earth movement and earthquake. As funding becomes available through Street CIF funds or grants, Granite Falls can complete transportation improvement projects alongside regular roadway maintenance to strengthen long-term transportation resilience and emergency access.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
-Continue to support the Six-Year Transportation Improvement Program by identifying transportation routes vulnerable to earthquakes, flooding, severe weather, wildfires, and mass earth movement -Prioritize critical routes for emergency access and evacuation - Pursue Street CIF funding and grant opportunities for transportation mitigation projects	-Complete priority roadway maintenance and transportation improvement projects -Continue tracking transportation infrastructure projects and funding opportunities related to emergency access and hazard mitigation	Maintain a resilient and reliable transportation network that supports daily activities, emergency response, and evacuation during hazardous events.

Implementation Plan/Actions

This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

Granite Falls Public Works should review transportation routes vulnerable to flooding, severe weather, erosion, and wildfire impacts. Priority roadway segments important for evacuation and emergency response should be identified and compared with projects currently included in the Six-Year Transportation Improvement Plan. Where gaps are identified, additional roadway maintenance or transportation improvement projects may be considered as funding becomes available through Street CIF funds or grants. Transportation improvement projects can be completed alongside regular roadway maintenance and infrastructure upgrades over time.

Performance Measures

- Number of roadway segments prioritized for evacuation and emergency response
- Amount of funding secured for roadway maintenance and transportation mitigation projects
- Number of completed roadway maintenance and transportation improvement projects
- Reduced transportation disruption during hazardous events

Mitigation Action Benefit Cost-Review Matrix

1	High cost	1
2	Addresses high-risk hazards	5
3	Supports transportation maintenance, roadway safety, emergency access, and hazard mitigation goals in the 2044 Comprehensive Plan (T-1, T-1.2, T-14.5, T-15.8)	5
4	significant and lasting public safety benefits for residents, businesses, and property	5
5	Action will benefit all residents	3
6	Strongly accounts for changes in development by incorporating hazard mitigation needs into future transportation planning and infrastructure improvement priorities	5
7	Accounts for effects of climate change – severe weather, flooding, erosion, and wildfire may disrupt transportation access and emergency response routes more frequently.	5
8	Action addresses hazard risks for the entire affected area of the community	5
	TOTAL:	34

GF-03 Alternative Energy Development

For the future development of new or repurposed municipal buildings, integrating alternative energy sources such as solar panels or battery storage would increase the city's resilience during hazard events. Since the city receives its energy from Snohomish County PUD, having alternative energy sources would ensure access during emergencies. Granite Falls is at risk of isolation due to several hazard events.

Diversifying energy sources would provide electricity for the future municipal buildings, which could be repurposed during emergencies.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	Partner Points of Contact (Dept or Agency) *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?*	Hazards Mitigated / Goals and Objectives Supported	Funding Sources and Estimated Costs
Granite Falls Community Development	Granite Falls Public Works Snohomish County PUD	Reduces energy dependence on outside sources in the event of islanding during a climate hazard like flooding, landslide, earthquake, extreme weather events, dam failure, extreme heat, and wildfire.	Washington State Department of Commerce has a Clean Energy Grant Program that can be applied for.
Strategy Vision/Objective *Long-term objective and vision for the strategy* Consider alternative energy sources to be added to municipal buildings to decrease dependence on outside sources in the event of energy disruption or city isolation.			
Mitigation Strategy *Describe the program/proposed program* Granite Falls is at risk of isolation during several hazards, with the most prominent being flooding, landslides, earthquakes, and extreme weather events. Isolation events might involve a major utility failure, such as a city-wide power outage. To prepare for this possibility, the Community Development and Public Works Departments will partner to consider integrating alternative energy sources into municipal buildings. Small-scale alternative energy sources like solar panels and battery storage would be feasible changes to add to city-owned buildings. The initial price of these energy improvements would be high, but there are grant programs that the city could apply for. Specifically, the Washington State Department of Commerce has a Clean Energy Grant Program that the city could apply for to assist in the completion of			

these upgrades.

Transitioning city-owned buildings to include renewable energy sources would save the city money in the long run, support the city's environmental goals, and create energy-independent assets that can be utilized by the community during emergency events.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Identify a municipal building to upgrade with an alternative energy source. Create an integration plan for the municipal building and use that plan to apply for a clean energy grant.	Have completed upgrading a municipal building to include an alternative energy source. Begin creating a plan to upgrade another municipal building.	Build energy independence by diversifying energy sources.

Implementation Plan/Actions

This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

- The Granite Falls Community Development and Public Works Departments will team up to consider integrating alternative energy sources into municipal buildings around the city.
- Identify a city-owned building that could be most resourceful during a city-wide power outage.
- Create an integration plan for installing the alternative energy source into the building.
- Apply for a WA Department of Commerce clean energy grant.
- Use money to implement the building improvement.
- Include this building in the city's emergency management plan as a possible resource during emergencies.

Performance Measures

- The number of alternative energy sources integrated throughout the city.
- Measure the amount of energy independently generated by the city.
- Emergency management plan updated to include alternative energy sources during emergencies.

Mitigation Action Benefit Cost-Review Matrix

1	Low cost	1
2	Addresses high-risk hazards - Earthquakes, wildfires, severe weather, mass earth movement, flooding	5
3	Supports 9 goals from Granite Falls Comprehensive Plan: LU-12.1, LU-12.3, LU-12.4, LU-12.6, T-11, CF-5.1, U-1.2, NE-1.3, NE-5.1	5
4	Will produce significant and lasting public safety benefits for residents, businesses, and property.	5
5	Action will produce a benefit to underserved communities that are socially vulnerable - the target demographic is not explicitly stated, but will benefit	5
6	Strongly accounts for changes in development - increases infrastructure needs and growth affects priority areas	3
7	Accounts for the effect of climate change - Wildfire, severe weather, mass earth movement, flooding	5
8	Action addresses hazard risks for the entire affected area of the community	5
	TOTAL:	34

GF-04 Community Center Programs

Granite Falls will develop resilience programs and emergency functions within the planned Community Center to strengthen the city's ability to prepare for, respond to, and recover from hazard events such as wildfire, extreme heat, earthquakes, severe winter storms, and periods of isolation. The Community Center will serve as a resilience hub by providing emergency shelter, clean-air and cooling spaces, backup power, emergency supplies, and access to information and services during disasters. The Community Center will also provide preparedness workshops, emergency training, and outreach programs focused on local hazards, evacuation planning, and emergency response. Hazard preparedness information can be shared through community events, schools, libraries, and local organizations to improve awareness and participation. By integrating resilience programs into the community center's operations, Granite Falls will improve coordination during disasters and reduce long-term community vulnerability and isolation.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	Partner Points of Contact (Dept or Agency) *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?*	Hazards Mitigated / Goals and Objectives Supported	Funding Sources and Estimated Costs
GF Planning Dept. & City Manager's Office, Emergency Management	Snohomish County Emergency Management, local healthcare providers, community organizations,	Wildfire, smoke events, extreme heat, severe winter storms,	FEMA grants, state resilience grants, general fund, public-private

	WA Emergency Management Division	earthquakes, and isolation during emergencies	partnerships, community development grants

Strategy Vision/Objective
Long-term objective and vision for the strategy

Develop a community resilience hub within the planned community center that supports emergency preparedness, strengthens social cohesion, and improves access to essential resources before, during, and after hazard events.

Mitigation Strategy
Describe the program/proposed program

Incorporate emergency-response functions into the planned Granite Falls Community Center. The facility could serve as a community gathering space during normal conditions while also functioning as an emergency shelter, clean-air and cooling center, supply distribution site, and preparedness education center during disasters.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Identify resilience functions and facility needs for the community center. Coordinate with emergency management and community partners. Explore grant and funding opportunities.	Incorporate backup power, clean-air rooms, cooling infrastructure, emergency supplies, and seismic safety measures into the facility design and operations.	Establish the community center as a hub that strengthens preparedness and disaster response capacity.

Implementation Plan/Actions
This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

Granite Falls should coordinate with emergency management agencies, healthcare providers, and community organizations during the planning and development of the future community center. Resilience features such as backup power, air filtration systems, cooling spaces, emergency supplies, stormwater management infrastructure, and accessible communication systems should be incorporated into the building design early in the planning process. The city can also develop preparedness workshops, emergency outreach programs, and community events through the center to strengthen awareness and social connectedness over time.

Performance Measures

Performance measures for this strategy include incorporating resilience features into the final community center design, such as backup power, clean-air and cooling spaces, emergency supplies, and seismic safety measures. Success can also be measured through the number of preparedness workshops and outreach events hosted at the center, community participation in programs, and the center's ability to function as an emergency shelter and resource hub during hazard events. Over time,

the strategy should help improve community preparedness, coordination, and social cohesion.

GF-05 Hazard Awareness

Granite Falls will identify high-risk areas using the Snohomish County Hazard Mitigation Plan 2025, the Granite Falls Initial Conditions Report, and the Granite Falls Hazard Mitigation Plan 2017 to determine where to conduct targeted outreach efforts. As residents living in high-risk areas may have limited awareness of the hazards that threaten their neighborhoods, Granite Falls may conduct outreach through canvassing in hazard-prone areas to raise awareness of hazards, emergency procedures, and available resources. Hazard awareness and emergency preparedness information will also be shared through existing community meetings, such as churches, schools, libraries, and social clubs, as well as at community events and on social media. Leveraging established community relationships will allow residents who may not otherwise be involved in local government to participate and stay informed about hazard preparedness and emergency planning discussions. Through coordinated efforts with residents, Snohomish Co. Fire District 17, community leaders, and local government officials, Granite Falls will establish trusted communication channels with residents living in vulnerable areas. This will allow hazard risks, evacuation procedures, and emergency resources to be more easily distributed to the target populations through trusted community channels.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	**Partner Points of Contact (Dept or Agency)** *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?*	**Hazards Mitigated / Goals and Objectives Supported**	**Funding Sources and Estimated Costs**
Public Works Department	Snohomish Co. Fire District 17 Community leaders Granite Falls residents	Earthquakes, flooding, severe weather, or wildfire	<$100k
Strategy Vision/Objective *Long-term objective and vision for the strategy* Build on existing mutual aid networks to increase hazard awareness among residents and protect those living in vulnerable areas.			

Mitigation Strategy
Describe the program/proposed program

Granite Falls will identify populations living in areas with the highest risk of hazards, utilizing the Snohomish County Hazard Mitigation Plan 2025, the Granite Falls Initial Conditions Report, and the Granite Falls Hazard Mitigation Plan 2017, to determine where to conduct targeted outreach efforts. As residents in high-risk areas may have limited capacity or access to resources that allow them to respond to hazards, Granite Falls will conduct outreach through canvassing efforts in the highest hazard-prone areas to discuss hazard awareness, emergency procedures, and resources available to them. Hazard awareness and emergency preparedness information will also be shared through existing community meetings such as churches, schools, libraries, social clubs, community events, and on social media. Leveraging established community relationships will allow residents who may not otherwise be involved in local government the opportunity to participate and stay informed on hazard preparedness and emergency planning discussions. Through coordinated efforts with residents, Snohomish Co. Fire District 17, community leaders, and local government officials, Granite Falls will establish trusted communication channels with residents living in vulnerable areas.

2-Year Objectives	**5-Year Objectives**	**Long-Term Objectives**
Create a list of targeted populations living in areas with the highest risk of hazards. Reach and inform 10-20% of the residents living in high-risk areas about the hazards that threaten their neighborhood through canvassing efforts. Some community meetings have begun discussion of hazard risks, evacuation procedures, and emergency resources.	Reach and inform all residents living in high-risk areas about the hazards that threaten their neighborhood through canvassing efforts. Hold discussions at most community meetings about hazard risks, evacuation procedures, and emergency resources.	Inform and engage residents living in high-risk areas about hazard awareness and emergency procedures to best protect those populations.

Implementation Plan/Actions
This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

Granite Falls will identify the targeted populations living in areas with the highest risk of hazards, utilizing the Snohomish County Hazard Mitigation Plan 2025, the Granite Falls Initial Conditions Report, and the Granite Falls Hazard Mitigation Plan 2017, then partner with Snohomish Co. Fire District 17 to begin canvassing efforts in those neighborhoods. Next, Granite Falls will partner with community leaders from churches, schools, libraries, social clubs, and community events to further conversations about hazard awareness and emergency procedures via community discussions and on social media.

Performance Measures
The number of people living in high-hazard risk areas reached through canvassing efforts, and the number of community meetings that discuss and inform residents on emergency procedures and hazard awareness.

GF-06 Hazard Alert System Expansion

Granite Falls will first meet with the Snohomish County Department of Emergency Management (DEM) to discuss changes to the interlocal agreement that explicitly outline permissions regarding Integrated Public Alert & Warning System (IPAWS) communication. Granite Falls will then develop steps for emergency response teams to follow when contacting Snohomish County DEM to broadcast hazard messaging via IPAWS in the event of an emergency. Important partners include Granite Falls Police Department and Fire District 17, which are the primary responders to hazards within the city. Next, Granite Falls will research popular social media channels to host hazard messaging, including examining current official account followings and existing online community groups like Nextdoor. Granite Falls will rework templates from the text alert system for hazard messaging on social media to streamline posting. Granite Falls may develop a social media promotion plan to promote official accounts or share information with residents on how to enroll in the existing text alert system. Community resources, such as the library or school newsletter, may serve as key channels for increasing social media following. Granite Falls will also use CivicPlus auto-translation features to automatically translate hazard messaging for social media posts in the event of an emergency.

This strategy will aid emergency response efforts by better communicating where high-risk areas are, how to evacuate, and how residents of the Granite Falls community should respond. All hazard risks are addressed by this strategy, and it overall promotes social cohesion between residents and the Granite Falls government.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	**Partner Points of Contact (Dept or Agency)**	**Hazards Mitigated / Goals and Objectives Supported**	**Funding Sources and Estimated Costs**
Granite Falls City Admin	Granite Falls Police & Fire Snohomish County Department of Emergency Management (SCDEM)	All	<$100k Low
Strategy Vision/Objective Protect residents from the impacts of hazards by expanding and formalizing hazard alert systems to reach all residents.			

Mitigation Strategy

In the event of a hazard, it's important that residents are informed of the present risk and how to respond. Granite Falls' existing hazard alert system requires residents to subscribe to a text service for direct updates from the city. However, residents who are not enrolled or tourists unaware of the program may not receive important directions from the city if a hazard were to occur. Furthermore, the community survey revealed that most residents encourage greater community education and support regarding hazards from the City of Granite Falls, which motivates a strategy targeting stronger social cohesion and awareness. Comprehensive and early alerts sent to residents regarding hazards can strengthen response efforts, facilitate evacuation, and mitigate the overall impact of hazards on the community.

This strategy has three parts:

(1) Formalize an agreement with Snohomish County for explicit agreement to use the Integrated Public Alert & Warning System (IPAWS) in order to reach all residents and visitors.
(2) Leverage social media to alert residents about hazards.
(3) Use automatic translations that are available through the city's CivicPlus subscription within social media posts to expand reach and accessibility to the city's non-English speaking residents.

Granite Falls will build on their existing interlocal agreement with SCDEM to formalize IPAWS processing between Granite Falls officials and Snohomish County in order to better reach residents and visitors who are not enrolled in Granite Falls' text alerts. IPAWS is an alert system that may contact phones within a hazard area, regardless of whether people are enrolled in alerts or not. This system requires authorization from FEMA to use, and Granite Falls can capitalize on SCDEM's access by requesting that hazard information be shared through Snohomish's IPAWS channels. The revised interlocal agreement will clarify how Granite Falls can transmit information to SCDEM for IPAWS use, as well as what staff and processes are required. Clear plans for how Granite Falls can access IPAWS ensure efficient cooperation between Snohomish County and Granite Falls' emergency response teams in the event of an emergency.

Granite Falls will also formalize hazard messaging for social media channels and identify popular online communities for Granite Falls' residents to expand reach. Diversifying communication channels can supplement the existing text alert system and raise awareness among residents on where to find important hazard updates from the city.

Finally, Granite Falls' subscription to CivicPlus, the emergency alert system hosting the city's current communication channels, allows for auto-translation of hazard messages. The rate of foreign-born residents has almost doubled since 2023[47], and there is the potential for

[47] https://datausa.io/profile/geo/granite-falls-wa

residents or visitors to have limited English proficiency, highlighting the need for alternative translations for hazard messaging. Identifying which languages are the second most spoken in the city and copying the CivicPlus translations for official city posts can target gaps in communication for vulnerable populations.

2-Year Objectives	**5-Year Objectives**	**Long-Term Objectives**
Identify active online communities for Granite Falls and build a social media presence for hazard alerts. Outline protocol for accessing IPAWS through Snohomish County and identify staff responsible.	Integrate non-English translations into all emergency communication channels. Maintain the SCDEM interlocal agreement and IPAWS protocol and update them to reflect any changes in staffing, technology, or county procedures.	Achieve broad community awareness of how to receive emergency alerts across all available channels, and maintain an up-to-date, tested multi-channel emergency communication system

Implementation Plan/Actions

1. Meet with SCDEM to discuss changes to the interlocal agreement that explicitly outline permissions regarding IPAWS communication.
2. Develop steps for emergency response teams to follow when contacting SCDEM with hazard messaging to be broadcast with IPAWS in the event of an emergency. Important partners include Granite Falls Police Department and Fire District 17, as these agencies are the primary responders to hazards within the city.
3. Research popular social media channels to host hazard messaging, such as examining current official count followings and existing online community groups like Nextdoor. Granite Falls will rework templates from the text alert system for hazard messaging on social media to streamline posting.
4. Develop a social media promotion plan to promote official accounts or share information with residents on how to enroll with the existing text alert system. Community resources, such as the library or school newsletter, may serve as key channels for increasing social media following. Granite Falls will also utilize CivicPlus auto-translation features for hazard messaging to copy onto social media posts in the event of an emergency.

Performance Measures
Existing text alert system enrollment numbers, social media engagement indicators, phones pinged in the event of an emergency, and alert times between hazard identification and SCDEM contacted.

GF-07 Potable Water Supply Planning

In the event of a major earthquake and tsunami, Granite Falls could be isolated from the city's main water source, the Snohomish PUD, which is distributed from Everett. Everett and the Snohomish PUD have indicated that there is adequate supply and storage until 2035. A redundant or independent water supply within Granite Falls could reduce vulnerability by avoiding complete outages and over-reliance on external supplies. According to the community engagement survey, residents expressed concern over having limited access to water if the community becomes isolated. Preliminary planning on building potable supply wells should start to be compiled to achieve water independence in the next decade.

Hazard Mitigation Action Items

Lead Points of Contact (Dept):	Partner Points of Contact (Dept or Agency):	Hazards Mitigated / Goals and Objectives Supported:	Funding Sources and Estimated Costs:
Public Works Department	- Snohomish County Public Utility District - WA Dept. of Health Office of Drinking Water - WA Dept. of Ecology	Reduces potential impacts from drought and islanding during earthquakes, tsunami, landslides, or flooding	Water CIF, medium-high cost
Strategy Vision/Objective: Initiate planning towards potable water independence.			
Mitigation Strategy In the event of a major earthquake and tsunami, Granite Falls could be potentially isolated from the city's main water source. A redundant or independent water supply within Granite Falls could reduce vulnerability by avoiding complete outages and over-reliance on external supplies. According to the community engagement survey, residents expressed concern over having limited access to water if the community becomes isolated. Preliminary planning on building potable supply wells should start to be compiled to achieve water independence in the next decade. Currently, Granite Falls "has an agreement with Snohomish County Public Utility District #1 (PUD) for the provision of water supply and storage" (2044 Comprehensive Plan). Water is transported from Everett and injected into Granite Falls' distribution system. Everett and the Snohomish PUD have indicated that there is adequate supply and storage until 2034. The city is currently budgeting for $1.5 million to replace several water mains containing asbestos and			

improve metering infrastructure by 2030. Presently, the city is focusing on the “replacement of the aging distribution system”. Therefore, any development of potable water supply wells will be in the more distant future.

Costs could potentially be funded through grants or bonds. If user charges could be decreased through reduced costs from transportation of water from Everett and administration fees for the PUD, this could make the project more economically feasible and generate more community support. The project would need an extensive environmental impact review as required by SEPA to understand how it would impact the water table, critical habitat areas, aquifer recharge areas, and the Pilchuck and Stillaguamish rivers. This is typically a technically extensive and costly process, adding to the upfront costs of any water supply development.

Although the potential costs are high, access to drinking water is a human right and critical for public health and wellbeing. Having an independent potable water supply will substantially increase the resilience of Granite Falls to future impacts from islanding and regional water supply shortages.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Initiate planning processes, identify project manager/ point of contact	Develop a plan with reliability evaluation, designs, budget, population and need projections, water treatment plan, SEPA requirements, etc.	Build a potable water supply system within Granite Falls

Implementation Plan/Actions

This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

Initial planning:

- Granite Falls will develop understanding of WA Dept. of Ecology and WA Dept. of Public Health guidelines on adequate water supply as well as SEPA requirements.
- Granite Falls will contact the WA Office of Drinking Water regional planner and set up a preplan meeting
- Identify community needs and ways to potentially provide potable water to residents outside of Granite Falls
- Determine the capacity for the city and the water supply aquifer to provide either a portion or all of the potable water to Granite Falls and the surrounding area in the next decade

Prior to 2034:

- The agreement with Snohomish PUD will need to be re-evaluated as the current potable supply is projected to last until 2034.

Performance Measures Number of wells installed. Number of households served by locally supplied potable water. Quality of the water supplied (measured for arsenic, as well as nitrate, turbidity, iron/manganese, chloride, and total dissolved solids).

Mitigation Action Benefit Cost-Review Matrix

1	High cost	1
2	Addresses high-risk hazards (earthquake)	3
3	Supports X goals: (CF-2.2, LU-10.3 IN 2044 comp plan)	3
4	significant and lasting public safety benefits for residents	5
5	Action does not benefit socially vulnerable or Underserved communities	0
6	Accounts for population growth because it is creating a new supply	3
7	Accounts for the effect of climate change - SLR in Everett could cause problems, flooding can lead to islanding, and drought could lead to less water in Spada Reservoir	3
8	Action addresses hazard risks for the entire affected area of the community	5
	TOTAL:	23

GF-08 Community Preparedness Workshops

To provide tangible emergency-preparedness support to Granite Falls residents, local agencies can host public workshops and training events that prepare residents for natural disasters. These workshops may address wildfires, earthquakes, flooding, severe weather, extended power outages, and other hazards, increasing public awareness of how to respond during an emergency. Community training events can also strengthen social cohesion and resilience by building connections among residents. Workshops may be funded through Preparedness State grants or other applicable federal or state programs.

Many partnerships offer low-cost or no-cost resources to support emergency-preparedness training. Potential partners include Snohomish County, the Pacific Northwest National Laboratory, FEMA, the American Red Cross, the Snohomish Chamber of Commerce, the Granite Falls Community Coalition, and the Granite Falls School District. Through these trainings and workshops, residents will be better equipped to understand local hazards, their effects, and how they may impact Granite Falls and the surrounding areas.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	Partner Points of Contact (Dept or Agency)	Hazards Mitigated / Goals and Objectives Supported	Funding Sources and Estimated Costs
Public Works Department	Snohomish County Fire Dept		<$100k

	The Pacific Northwest National Laboratory FEMA American Red Cross Granite Falls Community Coalition Granite Falls School District	Primarily earthquakes, flooding, severe weather, or wildfire Hazard preparedness and recovery	

Strategy Vision/Objective

Engage Granite Falls residents in hazard preparedness through public outreach activities.

Mitigation Strategy

To provide tangible emergency-preparedness support to Granite Falls residents, local agencies can host public workshops and training events that prepare residents for natural disasters. These workshops may address wildfires, earthquakes, flooding, severe weather, extended power outages, and other hazards, increasing public awareness of how to respond during an emergency. Community training events can also strengthen social cohesion and resilience by building connections among residents. Workshops may be funded through Preparedness State grants or other applicable federal or state programs.

Many partnerships offer low-cost or no-cost resources to support emergency-preparedness training. Potential partners include Snohomish County, the Pacific Northwest National Laboratory, FEMA, the American Red Cross, the Snohomish Chamber of Commerce, the Granite Falls Community Coalition, and the Granite Falls School District. Through these trainings and workshops, residents will be better equipped to understand local hazards, their effects, and how they may impact Granite Falls and the surrounding areas.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Initiate contact with agencies and community groups that will host hazard preparedness workshops and trainings. Hold preliminary workshops and trainings	Have a consistent schedule of the trainings and workshops year-round	Maintain community awareness of hazard preparedness workshops and trainings Build lasting social cohesion and hazard preparedness skills

Implementation Plan/Actions *This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.* First, Granite Falls will assess costs for hazard preparedness programs that offer community workshops and apply for any relevant grants to mitigate costs. After that, Granite Falls will partner with local agencies and community groups to host hazard preparedness workshops. These workshops will be done locally to ensure accessibility and convenience. Workshops will be promoted through text, social media platforms, and word of mouth through trusted community groups and events.
Performance Measures This will be measured by the number of emergency preparedness workshops each year, and by attendance numbers.

GF-09 Sustainability and Planning Standards

Granite Falls has the legal authority, through its comprehensive plan and zoning codes, to set policies aimed at sustainable development, environmental protection, and hazard mitigation, including wildfires, to protect public health and safety. With sustainability ordinances in place that emphasize green and blue infrastructure and practices, future development projects can draw on expertise to address the specific sustainability needs required to meet city standards. Examples of sustainability frameworks for individual building standards include LEED-certified buildings and the International WELL Building Institute (IWBI) standard. Additionally, wildfire protection frameworks would ensure collaborative efforts among emergency response teams, developers, and residents to build adaptive capacity to mitigate wildfire impacts. Implementing measures such as defensible zones, larger setbacks from vegetation, secondary road access, and fuel-reduction standards can help prevent fires from spreading through the community. Integrating sustainability practices reduces overall environmental degradation and addresses the impacts of climate change through accelerated low-carbon and circular-economy strategies, which can help Granite Falls reduce resource dependency and vulnerabilities by building self-sufficient pathways that increase adaptive capacity.

Hazard Mitigation Action Items

Lead Points of Contact (Dept): GF Planning Dept & City Managers Office	Partner Points of Contact (Dept or Agency) *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?*	Hazards Mitigated / Goals and Objectives Supported Wildfire &	Funding Sources and Estimated Costs < $100,000

	Snohomish County Planning and Development	earthquake	

Strategy Vision/Objective

Long-term objective and vision for the strategy

Develop sustainability and resilience standards that codify hazard mitigation into planning documents.

Mitigation Strategy

Describe the program/proposed program

Implement development and planning frameworks that strengthen community resilience by integrating sustainability practices, hazard-resistant design, and redevelopment plans.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
- Identify plans and areas to incorporate sustainable planning standards.	- Implement development and planning frameworks into existing guiding documents.	- Promote long-term self-sufficiency. - Hazards are reflected in long-term development plans.

Implementation Plan/Actions

This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

Performance Measures

Building code and comprehensive plan updates address development concerns for high priority hazards.

Inclusion of hazard mitigation strategies in the comprehensive plan and building codes.

Mitigation Action Benefit Cost-Review Matrix

1	High cost	5
2	Addresses high risk hazard (Wildfire)	5
3	Supports X goals:	3
4	significant and lasting public safety benefits for residents	1
5	Action does not benefit socially vulnerable or Underserved communities	0
6	Accounts for population growth because it is creating a new supply	1
7	Accounts for effect of climate change	5
8	Action addresses hazard risks for the entire affected area of the community	3
	TOTAL:	23

GF-10 Hazardous Tree Removal Program

To address risks posed by hazardous trees on public land, Granite Falls Public Works will remove hazardous trees and branches, particularly in high wildfire-risk areas and near transportation routes. Local firefighters can assess the safety of trees if needed, and this work can be done alongside regular improvements to spread the cost and labor demands over time.

To address risks posed by hazardous trees on private land, the city will create a yard waste drop-off program that allows people to drop off yard waste free of charge, incentivizing the cleanup of dead and hazardous tree debris. Frequency of yard waste drop-off to be determined.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	Partner Points of Contact (Dept or Agency) *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?*	Hazards Mitigated / Goals and Objectives Supported	Funding Sources and Estimated Costs
Public Works Department	Snohomish Co. Fire District 17	Wildfire and Severe Weather	Low. Less than $100k. $100-$800 per acre of tree management[48] State Department of Natural Resources financial assistance program for wildfire resilience and

[48] OSU Extension Forest. (2024). Reducing hazardous fuels on woodland property: thinning. *Oregon State University.* https://extension.oregonstate.edu/catalog/pub/ec-1573-reducing-hazardous-fuels-woodland-property-thinning.

			forest health funds may be available
Strategy Vision/Objective *Long-term objective and vision for the strategy* Remove and trim unhealthy and hazardous trees to reduce wildfire risk and severe-weather damage.			
Mitigation Strategy *Describe the program/proposed program* Removing and thinning hazardous trees to reduce dead or diseased trees, over-crowding, and ladder fuels can reduce fire risk by removing fuels and reducing the risk of fallen limbs and trees during extreme weather. To address risks from hazardous trees on public land, Granite Falls Public Works will remove hazardous trees and branches, particularly in high wildfire risk areas and near transportation routes. Local firefighters can assess the safety of trees if needed, and this work can be done alongside regular improvements to spread the cost and labor demands over time. To address risks from hazardous trees on private land, the city will create a yard waste drop-off program in which people can drop off yard waste free of charge to incentivize cleaning up dead and hazardous tree debris.			
2-Year Objectives Identify publicly owned hazardous trees Pilot a tree debris drop-off program	5-Year Objectives Remove and trim publicly owned hazardous trees Implement a tree debris drop-off program	Long-Term Objectives Reduce risk from wildfire and damage from severe weather along transportation routes and in densely populated areas by maintaining healthy trees on public and private land	

Implementation Plan/Actions *This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.* Local firefighters will help Public Works identify publicly owned hazardous trees to prioritize removal and trimming. Trees will be removed, especially alongside any existing maintenance to roads or public buildings. The city will schedule a day for tree debris drop-off and organize removal. The city will expand the program over time if there is demand.
Performance Measures The number of pounds of hazardous tree material removed from public and private land can be used to measure performance.

GF-11 Urban Greening

Although most of Granite Falls is outside the 100-year floodplain, more frequent and severe storms driven by climate change may strain the city's stormwater systems and increase localized flood risk. Expanding the use of bioswales, rain gardens, and permeable surfaces will reduce pressure on stormwater infrastructure by slowing runoff, increasing infiltration, and improving overall water quality. These green-infrastructure solutions also function as drought-mitigation strategies by retaining water and supporting healthier local vegetation.

Hazard Mitigation Action Items

Lead Points of Contact (Dept) Public Works Department	Partner Points of Contact (Dept or Agency) *Who else outside your jurisdiction benefits from the strategy or will help implement the strategy?* N/A	Hazards Mitigated / Goals and Objectives Supported Reduces flooding and severe weather	Funding Sources and Estimated Costs Low, less than $100k: Rain gardens: $5-$16 per square foot Bioswales: $5.50-$24 per square foot Permeable surfaces: $1.70-$12 per square foot[49]

[49] NOAA Office for Coastal Management. (2020). "Nature Based Solutions Installation and Maintenance

			Funding may be available from the Washington State Department of Ecology and EPA

Strategy Vision/Objective
Long-term objective and vision for the strategy

Reduce damage during flooding and severe weather by increasing urban greening infrastructure, including bioswales, rain gardens, and permeable surfaces.

Mitigation Strategy
Describe the program/proposed program

Although most of Granite Falls is not within a 100-year flood plain, increased severe storms due to climate change could potentially strain stormwater systems within the city, causing local flood risk. Introducing bioswales, investing in rain gardens, and increasing permeable surfaces across the city will reduce strain on stormwater infrastructure and improve overall water quality by absorbing water into the ground and filtering out pollutants. These solutions also double as drought mitigation strategies, as they both retain water and improve local vegetation. The benefit can be maximized by using native plants that improve the natural ecosystem and require less maintenance. Granite Falls can incorporate these projects into the 2025 Stormwater Management Action Plan with funds identified in the plan, including city funds and the Washington State Department of Ecology Stormwater Capacity Grants Program.[50] The city may also seek grants from the EPA's Green Infrastructure Funding.[51]

[50] Washington State Department of Ecology. (n.d.). "Stormwater capacity grants program." https://www.epa.gov/green-infrastructure/green-infrastructure-funding-and-technical-assistance-opportunities#federal.
[51] Environmental Protection Agency. (2026). "Green Infrastructure Funding and Technical Assistance Opportunities." https://www.epa.gov/green-infrastructure/green-infrastructure-funding-and-technical-assistance-opportunities#federal.

Costs. https://coast.noaa.gov/data/digitalcoast/pdf/nature-b,ased-solutions-installation-maintenance.pdf.
[50] Washington State Department of Ecology. (n.d.). "Stormwater capacity grants program." https://www.epa.gov/green-infrastructure/green-infrastructure-funding-and-technical-assistance-opportunities#federal.
[51] Environmental Protection Agency. (2026). "Green Infrastructure Funding and Technical Assistance Opportunities." https://www.epa.gov/green-infrastructure/green-infrastructure-funding-and-technical-assistance-opportunities#federal.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Initiate planning, prioritization, and securing grants.	Complete several rain garden, bioswale, or permeable surface projects.	Reduce damage from flooding and severe weather by redirecting water more naturally.

Implementation Plan/Actions

This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

The city will identify priority areas that are susceptible to flooding or damage during severe weather as candidates for green infrastructure. Then, the infrastructure will be designed and used to apply for grants before being constructed. Granite Falls Public Works, which is responsible for stormwater, is the agency in charge. This work could be completed in 5-10 years.

Performance Measures

The number of projects completed, the number of square feet converted to green infrastructure, and the gallons of water absorbed by new green infrastructure can be used to measure performance.

GF-12 Reduce the Effect of Mass Earth Movement

The current stormwater management program could include greater protections for natural habitat features that reduce the risk of mass earth movement and flooding. Large woody debris (LWD) is defined as fallen trees and logs located in stream channels; retaining these features helps reduce water velocity during storms and erosion. The current stormwater management program does not mention wetlands or LWD as stormwater management tools; including specific guidance and protections for both is a low-effort, low-cost, natural way to support flood and severe storm resilience while simultaneously supporting biodiversity and habitat conditions.

Hazard Mitigation Action Items

Lead Points of Contact (Dept)	Partner Points of Contact (Dept or Agency)	Hazards Mitigated / Goals and Objectives Supported	Funding Sources and Estimated Costs
Public Works Department	Washington State Department of Ecology	Mass Earth	<$100,000

		Movement and Flooding	

Strategy Vision/Objective
Long-term objective and vision for the strategy

Protecting the area's natural ecology enables long-term, sustainable, and low- to no-cost solutions to mass earth movement, flooding, and channel migration. Although the city experiences minimal flood risk, establishing protections for these natural features within the city's stormwater management program ensures these features can continue to provide ecosystem services to the area.

Mitigation Strategy
Describe the program/proposed program

The current stormwater management program could include greater protections for natural habitat features that reduce the risk of mass earth movement and flooding. Large woody debris (LWD) is defined as fallen trees and logs located in stream channels – retention of these features helps reduce water velocity during storms and reduce erosion. The current stormwater management program does not mention wetlands or LWD as stormwater management tools; including specific guidance and protections for both are low-effort, low-cost, natural way to support flood and severe storm resilience while simultaneously supporting biodiversity and habitat conditions.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
Update the stormwater management program to include protections for wetlands and large woody debris	Revise the program if new guidelines are suggested by the Department of Ecology	Evaluate impact

Implementation Plan/Actions
This can provide a timeline, indicate partners, discuss implementation stages, etc. Use this to discuss how the strategy/program will be implemented over the long term.

When the city updates its stormwater management program, it should include the assessment and protection of wetlands and large woody debris as planned activities within relevant sections.

Performance Measures
Successful update of the stormwater management program

Appendix

Appendicies

Appendix 1: Full HMP Online Survey

Your opinion will help improve hazard preparedness in Granite Falls! Please complete this survey to help us identify the city's greatest hazards and develop protection strategies.

Natural and human-made hazards can harm people, damage buildings, and disrupt the important systems we rely on every day. Examples of these hazards include earthquakes, wildfires, and severe weather.

Snohomish County and Granite Falls are updating their Hazard Mitigation Plan. The section for Granite Falls is being written with help from graduate students at the University of Washington. (More information about the full process can be found HERE.)

1) Where do you live in Granite Falls?
    a) North of City Hall
    b) South of City Hall
    c) Near City Hall
    d) West of City Hall
    e) East of City Hall

2) Which three hazard events do you think are the biggest threats to Granite Falls?
    a) Flood
    b) Wildfire
    c) Earthquake
    d) Landslides
    e) Disease Outbreak
    f) Severe Weather
    g) Dam Failure
    h) Volcano
    i) Hazardous Material Spill
    j) Extreme Heat & Drought
    k) Active Attacker
    l) Plane Crash
    m) Cybersecurity Attack

3) What are the top 3 things that worry you the most in the event of a hazard?
    a) Access to food/water

b) Access to medicine/healthcare
c) Not being able to evacuate
d) Not being able to get back to Granite Falls
e) Being separated from your family
f) Losing your Granite Falls home/business
g) Other:

4) Following a hazard event, do you have enough supplies (e.g., food, medicine, water) at home in case you become isolated and local resources are unavailable?
    a) Yes, I have supplies for a few days.
    b) Yes, I have supplies for a week or more.
    c) No, I do not have supplies.

5) If you are away from Granite Falls and can't get back, do you have a safe place to stay?
    a) Yes.
    b) No.
    If yes, please explain. What type of safe place? A public shelter or staying with a nearby friend/relative?

6) What do you think the City of Granite Falls could do to help with hazards? (Choose up to 3)
    a) Provide more community education and support
    b) Take more steps to prevent damage
    c) Improve emergency response plans
    d) Fix or improve roads, buildings, or other public spaces
    e) Work more with county and state agencies

7) Optional: Please share any other ideas or concerns related to hazards in Granite Falls.