Snohomish County

Community Wildfire Protection Plan

2025

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Approval of the Snohomish County Community Wildfire Protection Plan

The Snohomish County Wildfire Protection Plan satisfies the three requirements of the Healthy Forests Restoration Act of 2003: 1) Collaboration; 2) Prioritized Fuel Reduction and; 3)Treatment of Structure Ignitability. The CWPP was a coordination effort with 50 planning partners in the public, private and nonprofit sectors to reduce the risk of wildfire and increase the resilience of local communities to wildfires throughout Snohomish County. This document serves as a planning tool to guide residents, fire agencies, and communities to identify and implement strategies to prioritize fuel treatments and reduce structure ignitability. This plan is approved by the Snohomish County Executive, the Snohomish County Council, the Snohomish County Fire Chiefs Association and the Washington State Department of Natural Resources.

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ACKNOWLEDGEMENTS

Snohomish County Land Acknowledgement

On behalf of the Snohomish County Government, we honor descendants of all of the tribes and bands that have inhabited this land since time immemorial. We stand with these tribes, whose ancestors, by signing the Treaty of Point Elliott in Mukilteo in 1855, enabled our county, cities, and other communities to exist here. We honor these tribes as they continue to practice their culture and lifeways; including fishing, hunting and gathering and other cultural traditions.

With this tribal acknowledgment, we open our time together by honoring the ancestors whose feet first knew these lands, and whose paddles still know the waters of what we now call Snohomish County.

Snohomish County Planning Partner Acknowledgement

The development of this plan would not have been possible without the dedication and commitment to this process by the Snohomish County Community Wildfire Protection Plan Planning Committee, Advisory Committee, other Planning Partners, and the people of Snohomish County. The dedication of time to this process is greatly appreciated. Also, all who participated in the public process are commended for their participation in this planning effort.

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Executive Summary

Snohomish County is a place of trees.

Go outdoors and gaze in any direction. Odds are you'll encounter the bristling silhouettes of Douglas-fir, western hemlock, and western redcedar. Nothing defines the landscape here quite like the green of growing trees. Even in the busiest corners of Snohomish County, people are never far from places where the sky is crossed by overlapping limbs casting the shadows of the conifer cathedral.

Trees are a big reason Snohomish County has become the third most-populous place in Washington state. Their roots hold hillsides and history. They stitch together watersheds and wildlife habitat. Trees are key to the economy, providing timber for homes, revenue that supports schools, and wild spaces for tourism.

An estimated 840,000 people now live in Snohomish County. Roughly 130,000 – more than 15% – make their homes in the wildland urban interface (WUI), the places where houses, farms and businesses stand amid or adjacent to large tracts of trees. Of the nearly 5,000 residential building permits issued by the County since 2020, one in every five has been for homes in these locations.

That growth has been occurring at the same time that warmer, drier conditions are raising concerns about wildfire in Snohomish County forestlands. Already this century, the county has seen nine drought declarations. Major wildfires have occurred, particularly since 2020. Autumn 2022 saw multiple big blazes, notably the Bolt Creek Fire, which scorched nearly 15,000 acres across east Snohomish and King counties. During the fire's six-week run, smoke repeatedly degraded air quality to dangerous levels through most of the community.

People here have long understood how the arrival of fall rains connect to river flooding. Many are beginning to appreciate that the onset of summer, when clouds are scarce and the temperature is climbing, connects with fire. When humidity is low and the winds are blowing, particularly from the east, it is the time to scan the skies for signs of smoke from wildfires.

This draft Community Wildfire Protection plan represents the first countywide effort to identify strategies for living more safely with fire risk. Its development was deliberate, inclusive and data driven. It reflects insights and collaboration from 50 planning partners including firefighters, land management agencies, tribal nations, property owners, nonprofits and conservation organizations. More than 1,100 residents also took time in 2024 to complete a detailed survey to gauge, among other things, their wildfire preparedness and concerns about fire risks.

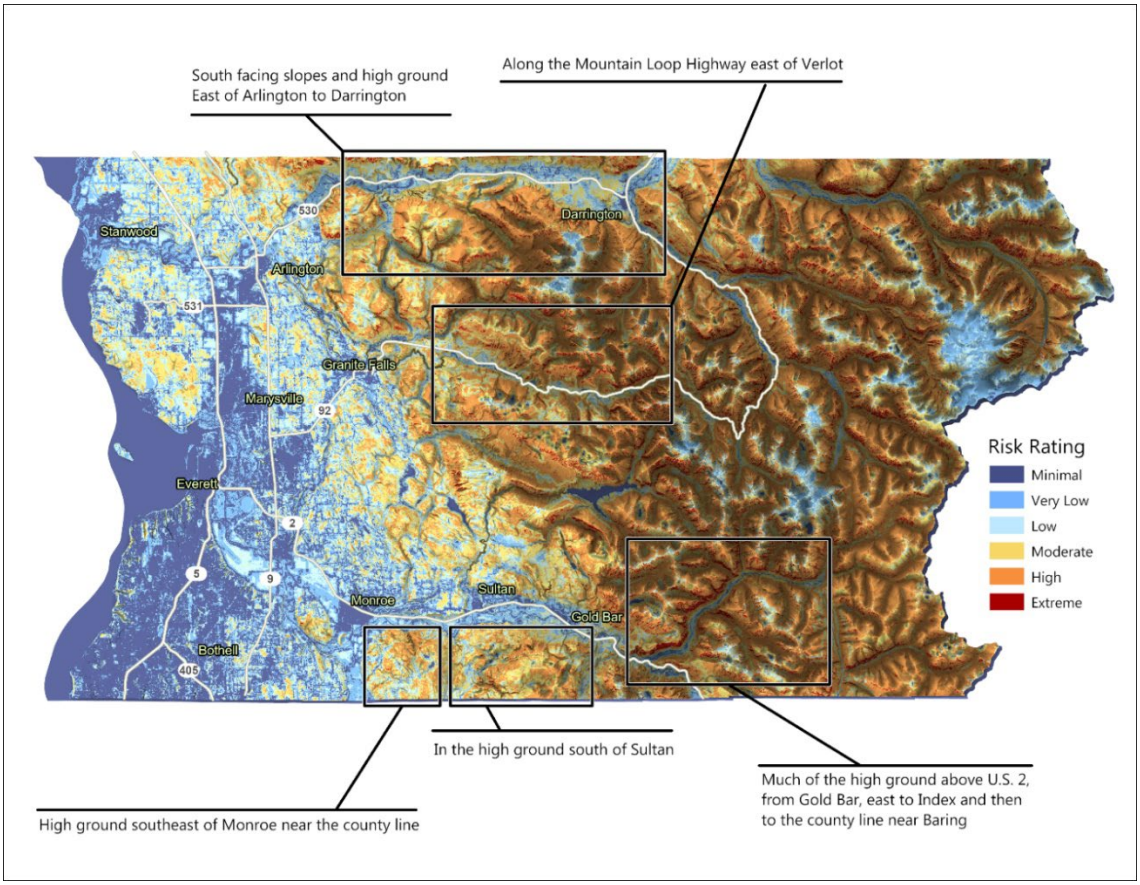
The plan provides a framework for coordinated wildfire mitigation, preparedness, evacuation, post-fire recovery, and outreach efforts – particularly within the WUI areas of Snohomish County. Some of the ways it seeks to better address wildfire risk include:

- Providing clear goals and guidelines for collaborative projects to reduce the brush and other woody fuels that prime forestlands for destructive fires.
- Collecting data to better understand the risks wildfires present to homeowners, businesses, and vulnerable communities.

- Improving access to information about making homes and property more fire-resistant as well as guidance for preparedness and evacuation planning.

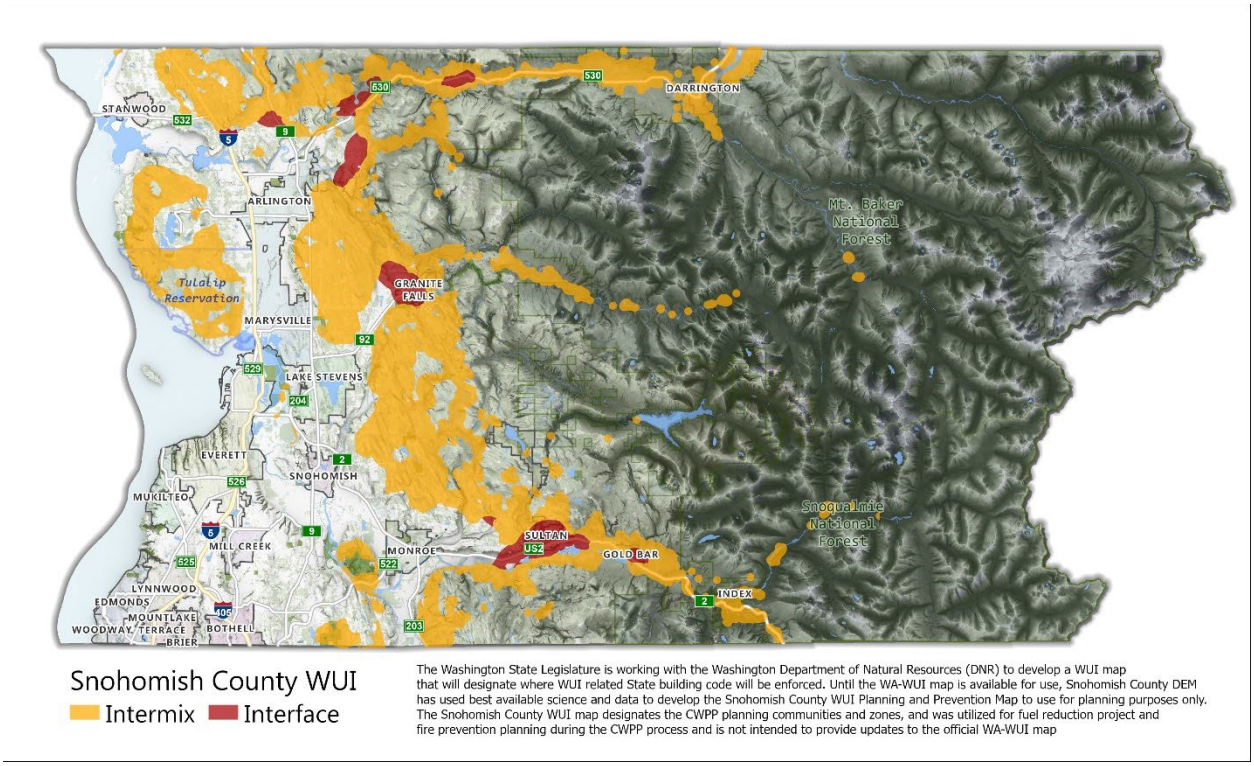
When fully developed, this plan should help fire agencies better embrace the risks and unique needs of their communities. This in turn should better position the people they serve to compete for federal and state funding that supports wildfire training, exercises, and equipment acquisition.

Key data informs this effort. Geospatial analysis was used to identify places in the county where topography and ground cover contribute to elevated wildfire risk. Much of this terrain is found bordering the Stillaguamish and Skykomish river valleys (See map 6).



Map of the wildfire risk within Snohomish County

Related data work identified areas in and adjacent to forestlands where people are building homes and wildfire mitigation is most needed (See map 1). The analysis provides people with actionable information for better understanding wildfire challenges and shaping a response that fits their needs.



Map of the Wildfire Urban Interface within Snohomish County

The wildfire protection plan is a collaboration by the partner team. Over the 20-month planning period, the team developed five overarching goals supported by 33 objectives.

Goal 1: Minimize Wildland Fire Threat – Reduce the risk to life, property, and resources by increasing opportunities for collaboration, coordination, and capacity building to implement wildfire mitigation projects, provide robust public outreach, and decrease the number of human-caused wildland fires. This goal is accomplished using five objectives, including providing landscaping guidance for home and business owners within the wildland urban interface.

Goal 2: Fire Adapted Communities - Empower residents, leaders, and other partners with knowledge, decision-making tools, and resources to understand and reduce wildfire risks, increase preparedness, and plan for post-fire recovery. This goal is met through seven objectives, including stepped up public outreach and developing a standardized wildfire education and resource kit to provide agencies.

Goal 3: Resilient Landscapes – Use best available science and data to inform, prioritize, and support the implementation of fuels treatment projects on private and public land to reduce risk, increase resiliency, and create defensible landscapes. Among the eight objectives are using the state Department of Natural Resources Forest Health tracker and Forest Health Plan to identify and prioritize timber sales, restoration thinning projects and other wildfire hazard mitigation treatments, plus removing pockets of diseased trees or blow down on public lands to reduce ladder fuels and mitigate fire hazards.

Goal 4: Safe and Effective Wildfire Response – Establish a cross-jurisdictional, countywide wildfire plan and local response annexes that include evacuation planning, communication planning, critical infrastructure and hazard mapping. The eight objectives to reach this goal include more coordination for evacuation planning, plus closer work with mass care partners to support sending people to cleaner air centers and to identify public cooling and cleaner air centers.

Goal 5: Fire Resilient Economies – Recognize that natural resource production and outdoor recreation are key parts of the Snohomish County economy and develop mitigation strategies that minimize adverse impacts to both, create economic opportunities, support community vitality and quality of life, and post-fire recovery efforts. The five objectives include ensuring the safety of tourists and visitors in the event of wildfire and establishing a resource and recreational advisory panel to support planning for economic resilience.

Cutting across these goals and objectives are 70 specific mitigation strategies, that cover:

- **Fuels reduction and management**, including eight mitigation strategies.
- **Planning and data analysis**, including 12 mitigation strategies.
- **Public education and outreach**, including 15 mitigation strategies.
- **Policy**, including 24 mitigation strategies.
- **Wildfire response readiness**, including 11 mitigation strategies.

The plan identifies leads for implementing each strategy. Recommendations range in complexity from automating the power grid with equipment that minimizes fire risks, to encouraging more brush clearing by residents, to developing a post-fire recovery program that includes funding to help businesses with revenue losses after a wildfire evacuation.

TAKE ACTION

Here are steps you can take immediately to better prepare for wildfire risk:

Stay informed. Sign up for SnoCoAlerts https://snocoalerts.snoco.org. Bookmark the wildfire page (www.bit.ly/snocowildfire) on the Snohomish County Public Safety Hub (https://snoco.org/safety)

Plan for a wildfire emergency. If you live in the WUI or another at-risk zone, identify all your options for swiftly leaving should evacuation become necessary. What routes could you drive to safety? How would you bring along your pets and livestock? Do you have a go-bag packed? Are your key documents kept where you can grab them and leave? How will you stay in contact with family and friends? If you live in a place where evacuation due to fire is unlikely, how will you limit exposure to wildfire smoke?

Seek help in assessing ignition risk at your property. The Snohomish Conservation District and state Department of Natural Resources can provide expert advice, including to people living inside cities and towns.

Ensure there is defensible space around your home and outbuildings**,** at least 30 feet. Trim back brush and any limbs overhanging structures. Make sure woodpiles are not stacked against buildings.

Heed burn bans from the county Fire Marshal, the Puget Sound Clean Air Agency and the state Department of Natural Resources. Avoid activities that can introduce sparks, including discarding cigarette butts and parking hot cars on grass.

Regular, robust interaction with county residents will continue as the plan transitions from ideas to actions. The 1,100 people who completed the wildfire preparedness survey in 2024 left little doubt that there is much interest and room for discussion:

- Compared to five years ago, 59% of respondents are “more concerned” or “much more concerned” about the safety of their family, home, and assets from wildfire.
- In the event of a wildfire, 34% of respondents do not have a firm evacuation plan.
- More than 72% believe wildfire mitigation projects (forest thinning and fuel reduction) benefit the forest. Nearly 20% are unsure.
- About 43% said they were uncertain what steps to take to reduce wildfire risk at their property.

The Community Wildfire Protection Plan provides the framework for building consensus on next steps, identifying a shared path to keep Snohomish County a place of trees.

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Contents

Approval of the Snohomish County Community Wildfire Protection Plan ..... **ii**

ACKNOWLEDGEMENTS ..... **iii**

Snohomish County Land Acknowledgement iv

Snohomish County Planning Partner Acknowledgement iv

Community Wildfire Protection Plan Sponsors iv

Prepared By iv

Executive Summary ..... **ES - 1**

1.0 Introduction to the Community Wildfire Protection Plan **1**

1.1 Purpose of the Community Wildfire Protection Plan 1

1.2 Goals and Objectives 3

1.3 Snohomish County Profile 6

2.0 Risk and Response **19**

2.1 Wildfire Risk Analysis 19

2.2 Fuel Sources 19

2.3 Assets at Risk 22

2.4 At-Risk Communities and Individuals 25

2.5 Risks to Infrastructure, Industries and Economies 29

2.6 Post-Fire Risks 38

2.7 Preparedness Survey results 40

2.8 Fire Agency Response and Firefighting Capabilities 44

2.9 Evacuation, Sheltering and Reentry 46

2.10 Recovery 52

3.0 Mitigation **55**

3.1 Fuels Reduction and Management 55

3.2 Planning and Data Analysis 56

3.3 Public Education and Outreach 59

3.4 Policy 61

3.5 Wildfire Response Readiness 65

4.0 Resources **68**

4.1 Resources for Communities: 68
4.2 Resources for Individuals and Forestland Owners: 68
4.3 Resources for Safety and Evacuation: 69
Acronym/Abbreviation List 71
References 72

List of Figures and Maps

Number	Title	Page
Figure 1	National Cohesive Wildfire Strategy	2
Figure 2	Snohomish County Average Temperature	9
Map 1	Wildfire Urban Interface and Intermix in Snohomish County	11
Map 2	Residential Building Permits in the WUI 2020-2024	12
Map 3	Forestland in Snohomish County by Ownership 2025	14
Figure 3	Image: Dense Stand of Aerial Seeded Douglas-fir	15
Map 4	NWS Drought Outlook for 2025	15
Map 5	Spring 2025 Snowpack Levels	16
Figure 4	Image: Wildland Firefighters Respond to Bolt Creek Fire	17
Map 6	Wildfire Risk in Snohomish County	19
Figure 5	Components for Fire Ignition and Spread	20
Figure 6	The Home Ignition Zone	24
Map 7	Critical Infrastructure and Key Resources within WUI Areas	25
Figure 7	Image: Supplies Staged for Livestock Owners in Okanogan	29
Figure 8	Image: Smoke From the Labor Day Fires Impacts Darrington	30
Figure 9	Image: Debris From the Pacific Palisades Fire Washed Up in Long Beach	31
Figure 10	Image: DNR Helicopter Water Drop on the Hot Shot Fire	32
Figure 11	Image: Storm Damage and Stand Disease in Snohomish County Forestlands	34
Figure 12	Image: Burned Power Transmission Lines After the Cold Creek Fire	35
Figure 13	Image: SnoPUD Contractor Trimming Vegetation in the Right-of-Way	37
Figure 14	Image: Tour Boats Moored in Lahaina	38
Figure 15	Image: Debris Flow Damage from the Carlton Complex Fire Burn Scar	39
Figure 16	Image: Post-fire Conditions within the Bolt Creek Fire Perimeter	40
Figure 17	Demographics of the Snohomish County CWPP Public Survey	41
Figure 18	Survey Response for Wildfire Preparedness Responsibilities	42
Figure 19	Survey Response for Challenges to Implementing Defensible Space	42
Figure 20	Survey Response for Opportunities for Implementing Defensible Space	43
Figure 21	Key Insights from the CWPP Public Survey	43
Figure 22	Image: Wildland Firefighter Battles the Bolt Creek Fire in 2022	44
Map 8	Fire District Map of Snohomish County	45
Figure 23	Ready, Set, Go Public Outreach Material	47
Figure 24	Expected Sources of Evacuation Information	48

Figure 25	Image: A Reader Board with Information from the Bolt Creek Fire	49
Figure 26	Image: A Burned Foundation after the Cold Creek Fire in 2020	53

List of Tables

Number	**Title**	**Page**
Table 1	Goal 1 Objectives	4
Table 2	Goal 2 Objectives	4
Table 3	Goal 3 Objectives	5
Table 4	Goal 4 Objectives	5
Table 5	Goal 5 Objectives	6
Table 6	Snohomish County WRIAs and River Basins	8
Table 7	Estimated Forestland by Ownership	14
Table 8	Sources of Wildland Fire Fuel	21
Table 9	Sources of Wildland Fire Ignition	21
Table 10	Structures at Risk for Ignition	22
Table 11	Air Quality Index Levels of Concern	26
Table 12	Historical Air Quality in Snohomish County	27
Table 13	Fire Agency Wildland Fire Capability Survey Results	45
Table 14	Re-Entry Phases in Snohomish County	51
Table 15	Fuels Reduction and Mitigation Strategies	55
Table 16	Planning and Data Analysis Mitigation Strategies	56
Table 17	Public Education and Outreach Mitigation Strategies	59
Table 18	Policy Mitigation Strategies	61
Table 19	Wildfire Response Readiness Mitigation Strategies	65

Record of Updates

Record all base plan and annex updates here for general situational awareness. The method and schedule for evaluation and revision of this plan can be found in the Planning Process Appendix.

Record of Updates No.	Date	Changes Made	Completed By
E.G.	01/30/202x	Record section where change is located and a narrative of the change	Staff Name
[#]	*[Date]*	*[Overview of changes]*	*[Name]*

1.0 Introduction to the Community Wildfire Protection Plan

1.1 Purpose of the Community Wildfire Protection Plan

A Community Wildfire Protection Plan (CWPP) is a guidance document for communities to reduce their wildfire risks and plan for wildfire response. It is not regulatory in nature, but provides recommendations for local jurisdictions on mitigating risks and making their communities more resilient to wildfires. In Washington State, the Department of Natural Resources is responsible for approving local CWPPs, and recommends planning on a countywide scale, as a chapter or an appendix to the County's Hazard Mitigation Plan.

The National Wildfire Coordinating Group defines a CWPP as:

> *"A plan developed in the collaborative framework established by the Wildland Fire Leadership Council and agreed to by state, tribal and local government, local fire department, other stakeholders and federal land management agencies managing land in the vicinity of the planning area. A community Wildfire Protection Plan (CWPP) identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment of Federal and non-Federal land that will protect one or more at-risk communities and essential infrastructure and recommends measures to reduce structural ignitability throughout the at-risk community. A CWPP may address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection – or all of the above"*

The Healthy Forests Restoration Act of 2003 established national minimal standards for CWPPs, designating the State Forester responsible for oversight in local jurisdictions and requiring that local and tribal governments, local fire departments and the state agency responsible for forest management approve and sign the plan as well as subsequent updates. The Healthy Forests Restoration Act also established the three minimal requirements for a CWPP:

1. Collaboration – the CWPP must be developed collaboratively among local, state and federal agencies and other interested parties
2. Prioritized Fuel Reduction – Areas of hazardous fuel reduction treatments must be identified and prioritized including methods of treatment that will protect one or more at-risk communities and essential infrastructure
3. Treatment of Structural Ignitability – Recommendations and resources for homeowners and communities to reduce ignitability of structures must be addressed by the CWPP (Washington State Department of Natural Resources, 2023)

In 2009, Congress passed the Federal Land Assistance, Management, and Enhancement Act (FLAME Act) that mandated the development of a National Cohesive Wildland Fire Management Strategy (National Strategy). The National Strategy was finalized in 2014 by the US Department of the Interior, and provides planning guidelines for everyone to work together using best management practices, public outreach and best available data to make progress in three main goals:

1. **Resilient landscapes:** Landscapes, regardless of jurisdictional boundaries, are resilient to fire, insect, disease, invasive species and climate change disturbances, in accordance with management objectives.
2. **Fire-adapted communities:** Human populations and infrastructure are as prepared as possible to receive, respond to and recover from wildland fire (that impacts communities).
3. **Safe and effective risk-based wildfire response:** All jurisdictions, responding in all land types, participate in making and implementing safe, effective and efficient risk-based wildfire management decisions.

The National Strategy addresses four broad challenges:

1. Managing vegetation and fuels;
2. Protecting homes, communities, and other values at risk;
3. Managing human-caused ignitions; and
4. Effectively and efficiently responding to wildfire. (US Department of the Interior, 2014)

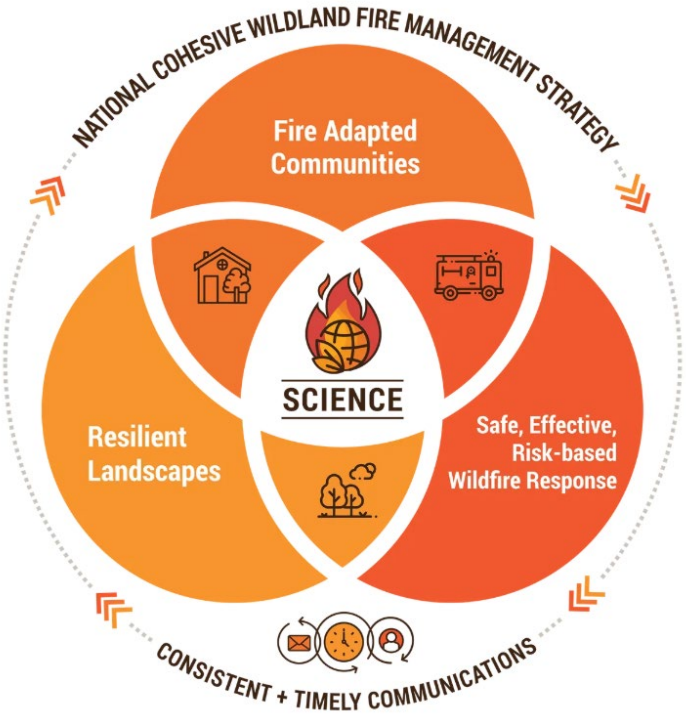


Figure 1 – The National Cohesive Wildland Fire Management Strategy,
Source: US Department of the Interior

Additionally, the International Association of Fire Chiefs recommends that CWPPs include clear goals and objectives, current fuel conditions, and define the desired conditions (International Association of Fire Chiefs, 2024). Completing a State and Federal approved CWPP allows local jurisdictions, tribes, agencies and organizations to be eligible for many sources of funding opportunities including but not limited to (subject to change as new information becomes available):

- Community Wildfire Defense Grant | WA – DNR
- America the Beautiful Challenge | NFWF
- Title III FAQs | US Forest Service (usda.gov)
- Landscape Scale Restoration Competitive Grant
- Hazard Mitigation Assistance Grant
- Assistance to Firefighters Grants (AFG)
- Staffing for Adequate Fire and Emergency Response (SAFER)

In an effort to build a fully collaborative document, Snohomish County assembled a Planning Team and an Advisory Committee consisting of local jurisdictions, tribes, agencies, WA DNR, the USFS Mount Baker-Snoqualmie District, County government departments, local outdoor education and conservation nonprofit organizations, transit agencies, the American Red Cross and the Pilchuck Tree Farm. The Planning Team met monthly for six months, and the Advisory Committee met quarterly to develop goals, objectives and mitigation strategies for the Snohomish County CWPP. Both groups came together along with additional local subject matter experts and stakeholders for a half-day wildfire mitigation workshop to develop and prioritize mitigation actions to include in the countywide plan. Additional details on the CWPP planning process can be found in Appendix A.

1.1.1 Mission Statement

Establish a collaborative group of first response, emergency management, land management, nonprofit agencies, tribal nations, and natural resource conservation organizations working together to create a pro-active, easily accessible Community Wildfire Protection Plan (CWPP), providing a comprehensive framework to plan and fund coordinated mitigation, preparedness, evacuation, post-fire recovery, and outreach efforts within the Wildland Urban Interface (WUI) areas of Snohomish County.

1.1.2 Vision Statement

This CWPP will provide a roadmap toward reducing wildfire risk in Snohomish County by providing clear goals and guidelines for collaborative fuel reduction and mitigation projects, understanding risks to homeowners, businesses, and vulnerable communities, providing outreach to residents for defensible space and fire-resistant construction, and guidance for wildfire preparedness and evacuation education programs. This plan will also help fire agencies understand the risks and unique needs of their communities, including residents with access and functional needs, and qualify agencies for federal and state funding programs to support training, exercise, and equipment procurement.

1.2 Goals and Objectives

This plan will serve as an Annex to the Snohomish County Hazard Mitigation Plan. The following CWPP Goals and Objectives were developed by the Planning Team and approved by the Advisory Committee on September 5, 2024.

Goal 1: Minimize Wildland Fire Threat

Reduce the risk to life, property, and resources by increasing opportunities for collaboration, coordination, and capacity building to implement wildfire mitigation projects, provide robust public outreach, and decrease the number of human-caused wildland fires.

Number	Objective Description
1.1	Complete an updated county-wide wildfire risk assessment, identifying level of risk to communities along with contributing factors, and share with local, state and federal partners every 5 years.
1.2	Complete an updated county-wide Wildland Urban Interface assessment and identify the level of risk to communities and structures within the WUI areas every 5 years. Continue to support the implementation of the WUI code at the State and Local level by
1.3	Continue to support the implementation of the WUI code at the State and Local level by promoting the use of fire-resistant materials and design in new construction and provide guidance for home and business owners seeking to mitigate wildfire risk to existing structures.
1.4	Provide landscaping guidance for home and business owners within the WUI areas to reduce wildfire risk to structures during the permitting process, at public outreach events and during scheduled site visits.
1.5	Provide robust public education and outreach to inform residents and visitors of the wildfire risks in the WUI areas, the activities that lead to human-caused fires, and how to minimize and prevent the start of vegetation fires at annual public outreach events and during Wildfire Awareness month.

Table 1 – Goal 1 Objectives

Goal 2: Fire Adapted Communities

Empower residents, leaders, and other partners with knowledge, decision-making tools, and resources to understand and reduce wildfire risks, increase preparedness, and plan for post-fire recovery.

Number	Objective Description
2.1	Conduct countywide public outreach survey to assess wildfire risk mitigation knowledge, evacuation preparedness, and community values of Snohomish County residents every 5 years.
2.2	Identify gaps in wildfire public education materials and create common materials to address gaps for use across Snohomish County within 1 year of every CWPP update.
2.3	Provide a standardized wildfire education and resource kit to agencies for outreach efforts, and update every 5 years.
2.4	On an annual basis, work with public agencies and private landowners to identify and mitigate access issues for brush and wildfire response
2.5	Provide an annual CWPP mitigation action report to County Leadership and Snohomish County Tomorrow.
2.6	Develop and distribute public education materials building managers can use to improve filtration and reduce occupant exposure to wildfire smoke on an annual basis.
2.7	Develop and distribute public education materials that builders and homeowners can use to properly site and maintain electrical equipment on private residences.

Table 2 – Goal 2 Objectives

Goal 3: Resilient Landscapes

Use best available science and data to inform, prioritize, and support the implementation of fuels treatment projects on private and public land to reduce risk, increase resiliency, and create defensible landscapes.

Number	Objective Description
3.1	Support fire agency and Conservation District programs that assist home and forest owners in reducing wildfire fuel sources on their land and within their communities, including budget proposals and annual grant application coordination.
3.2	Develop sustainable fuel management initiatives at the homeowner and homeowners' association level, review and update every 5 years.
3.3	Promote public outreach and cooperation for all fuels reduction projects to solicit community involvement and private landowner cooperation when they are proposed and permitted.
3.4	Prioritize wildfire hazard reduction treatments around communities within the WUI areas and along major evacuation routes when feasible.
3.5	Use the Washington State Department of Natural Resources Forest Health tracker and Forest Health Plan to identify and prioritize timber sales, restoration thinning projects and other wildfire hazard mitigation treatments, focusing on forest health and community protection.
3.6	Establish healthy forest practices when developing recreation areas, building and maintaining trails, or removing pockets of disease or blow down on public lands to reduce ladder fuels and mitigate fire hazard.
3.7	Pursue annual funding opportunities to purchase, install and support and maintain current and additional fire detection cameras and equipment.
3.8	Upgrade and automate the electric grid in fire-prone areas with system safety and protection controls to 1) prevent ignition from electrical equipment and 2) enable more accurate and efficient fault detection, isolation and service restoration.

Table 3 – Goal 3 Objectives

Goal 4: Safe and Effective Wildfire Response

Establish a cross-jurisdictional, countywide wildfire plan and local response annexes that include evacuation planning, communication planning, critical infrastructure and hazard mapping.

Number	Objective Description
4.1	Conduct countywide fire agency survey to assess current wildfire resources and equipment inventory and identify needs for future grant proposals annually.
4.2	Create a CWPP planning subcommittee to develop an Incident Action Plan template for wildfire evacuation that can be used by fire agencies for effective response, review and update every 5 years.
4.3	Conduct tabletop exercises within WUI communities to identify gaps within standardized evacuation IAP every 5 years.
4.4	Establish an inter-agency CWPP coordination committee and determine meeting frequency to support continued efforts after Snohomish County CWPP is completed.

Number	Objective Description
4.5	Identify and create list of current available funding sources for wildfire response and mitigation efforts to support local/regional grant submissions where applicable on an annual basis.
4.6	Coordinate shelter planning between mass care partners to support wildfire evacuations and cleaner air centers and identify public cooling and cleaner air centers as they are developed.
4.7	Develop public education materials for building managers to improve air quality for tenants within 1 year of every CWPP update
4.8	Coordinate with Snohomish PUD on the Public Safety Power Shutoff communications plan and outage restoration updates.

Table 4 – Goal 4 Objectives

Goal 5: Fire Resilient Economies:

Recognize that natural resource production and outdoor recreation are key parts of the Snohomish County economy and develop mitigation strategies that minimize adverse impacts to both, create economic opportunities, support community vitality and quality of life, and post-fire recovery efforts.

Number	Objective Description
5.1	Develop strategy for ensuring the safety of tourists and visitors to Snohomish County in the event of wildfire within 1 year of every CWPP update
5.2	Expand existing awareness campaigns and develop communication strategies to educate visitors and recreators about wildfire prevention and risk mitigation while visiting or recreating within Snohomish County within 1 year of every CWPP update
5.3	Continue the development and dissemination of educational materials for communicating ignition prevention, etc. during times of burn bans to WUI residents
5.4	Establish resource and recreational advisory panel to support economic wildfire resilience planning and assist in the update of the CWPP every 5 years.
5.5	Use robust public outreach during the planning process to understand the unique structure, systems, historical and cultural important places, and demographics of WUI communities to ensure that post-fire recovery planning efforts are equitable and meet the needs of the residents within those communities.

Table 5 – Goal 5 Objectives

1.3 Snohomish County Profile

Snohomish County was originally settled by Indigenous Salish tribes who lived off the abundant natural resources in the county's forests, rivers and valleys. European settlement occurred in the late 18th Century, drawn by those same natural resources where they established communities along the rivers and within the forests. Native tribes used the waterways to navigate the mountainous regions, and those same transportation routes were replaced by rail lines and roadways. Many of these historic transportation routes were improved to become the major roads and highways used today, which creates challenges for fire response and evacuation. The topography of the mountains and drier parts of the upper mountain valleys, compounded by recent extreme weather events and drought also lead to some of the challenges firefighters face with ignition sources and fire response.

1.3.1 Historic Overview

Several native tribes, including the Snoqualmie, Skykomish, Sauk-Suiattle, Stillaguamish, and Snohomish, occupied the region that is currently recognized as Snohomish County. Both oral tradition and archaeological records indicate that these tribes consisted of hunters, gatherers, and fishermen whose vast territories covered the region's mountains, prairies, and river systems.

The Snohomish Historical Society discussed the definition of the name Snohomish in their book River Reflections, stating:

"Indians named rivers and areas after their own tribes. The dominant tribe in this county was the Snohomish, the Indians spelling it 'Sdoh-doh-hohbsh.' Although many historians debate the meaning or claim it had none, Chief William Shelton, last of the hereditary Snohomish chiefs, said it meant lowland people. Other students of Indian lore say it might mean 'a style of union among them' of 'the braves'. Other sources claim the name means 'Sleeping Waters'. Still other spellings have given Sdohobich." (Snohomish Historical Society, 1975)

European-American settlement began in 1792 with the arrival of Captain George Vancouver. It continued rapidly into the 20th century due to the abundance of natural resources in the region, including timber. In 1855, the Treaty of Point Elliott reserved the Tulalip Reservation for the use and benefit of the local tribes. It was created to provide a permanent home for the Snohomish, Snoqualmie, Skagit, Suiattle, Samish, and Stillaguamish Tribes and allied bands living in the region (The Tulalip Tribes, n.d.). Urban development continued centric to Seattle in the lowlands and natural resource production led to smaller towns and cities within the river and mountain valleys.

Snohomish County further grew in the late 1960s, following the construction of the Boeing 747 plant at Paine Field. Increased development of high-technology industries along the north Interstate 405 corridor and toward Lake Stevens and Marysville brought population increases in those areas too. During the last 30 years, the traditional economic mainstays of farming, logging, lumber, and paper production started to decline, affecting the economies and lifestyles of many of the county's natural resource-based communities. Over the last several decades the population in Snohomish County has grown faster than the average growth rate of counties in Washington State and the national average. As of the 2023 Snohomish County Tomorrow Growth Monitoring Report, the population of Snohomish County is estimated at 859,800 (Snohomish County Tomorrow, 2024).

1.3.2 Geography

Snohomish County is located on Puget Sound in Western Washington and is the 13th largest county in Washington by total area, with a total area of 2,196 square miles (2,089 square miles of land and 107 square miles of water). It is located between Skagit County to the north and King County to the south and borders Chelan County to the east and Island County to the west with the water of Puget Sound.

The county's varied topography ranges from saltwater beaches, rolling hills, and rich river bottom farmlands in the west to dense forest and alpine wilderness in the mountainous east. The mountainous geography of the eastern portion of the county caused the bulk of Snohomish County's development and

population growth to occur along the narrow, westernmost Puget Sound lowlands. More than half of the county is mountainous, with peaks reaching elevations over 6,000 feet and supporting glaciers and perennial snowfields. Glacier Peak, at 10,541 feet, is the highest point in the county and one of the highest in the state.

Most of the county's communities are in the western lowlands near primary transportation corridors including Interstate-5, State Route-9, US Highway-2, and State Route-530. Snohomish County also hosts multiple railways connecting the communities to Puget Sound and Canada. Many sections of the historic railways have been converted to recreational trail systems, such as the Interurban Trail and Centennial Trail, while others are used for the Sound Transit commuter train and freight trains.

Washington State Department of Ecology identified that Snohomish County has five Water Resource Inventory Areas (WRIAs) and two major river basins (Washington State Department of Ecology, 2025):

Watershed Resource Inventory Areas	Lower Skagit/Samish Upper Skagit Stillaguamish Snohomish Cedar/Sammamish
Snohomish River Basin	Covers approximately 1,856 square miles in King and Snohomish Counties and contains over 2,700 miles of streams, making it the second largest basin draining to Puget Sound. The Skykomish and Snoqualmie Rivers originate in the Cascade Mountains and flow west before meeting near the City of Monroe where they become the Snohomish River. The Snohomish River continues to the estuary near the City of Snohomish and reaches Puget Sound between the cities of Everett and Marysville.
Stillaguamish River Basin	Covers approximately 700 square miles in area, with about 3,100 miles in stream length. Located in the northern half of the county, the Stillaguamish River drains approximately one-half of the county's land area. With basin streams originating in Skagit and Snohomish County, the "Stilly" is the fifth largest tributary draining into Puget Sound.

Table 6 – Snohomish County Watershed Inventory Resource Areas and river basins

1.3.3 Geology

Many of the geologic features of Western Washington are shaped by plate tectonics. The Juan de Fuca Plate, a small, low- lying oceanic plate, is moving under the western edge of the North American Plate at the Cascadia Subduction Zone. This friction causes earthquakes of considerable magnitude, which may generate tsunamis (Pacific Northwest Seismic Network, n.d.). As the dense oceanic crust is gravitationally pulled under the continental plate and deep into the mantle, parts of the crust turn into magma, resulting in the creation of volcanoes such as Glacier Peak (US Geological Survey, 2025). Though seismic activity in Snohomish County has been moderate to low, this active tectonic system has created a landscape of mountains, valleys and lowlands.

Over a few million years, at least four glacier periods carved and scoured the landscape of Snohomish County. Twenty thousand years ago, glaciers covered the land between the Olympics and the Cascade Mountains as far south as Olympia in several thousand feet of ice. When the ice finally retreated to the north about 13,000 years ago, it left behind deeply gouged channels, north-south oriented passages, and bays. Weather, waves, rivers, and gravity reworked the glacial sediment, molding landforms and shorelines into the beaches and bluffs that now edge the Puget Sound region (Washington State Department of Natural Resources, 2025). The rivers cut through these valleys, transporting and re-distributing nutrient rich sediments throughout the productive floodplains.

1.3.4 Climate and Weather

As Snohomish County's landscape varies significantly between the valleys and the neighboring mountains, so does its climate. Locations along the Puget Sound are generally characterized as a moderate year-round climate, with average temperatures ranging from about 75°F in July to about 33°F in January. Since 1900, average annual air temperature in the Puget Sound region has increased by 1.3 degrees Fahrenheit and is projected to be 5.5°F warmer in the 2050s. Extreme heat events are forecast to worsen in Snohomish County. By mid-century the county is projected to experience between eight to 20 more days of extreme heat each year, which means drier forests and increased heat stress on native trees along with the human impacts of increased calls for emergency services, hospital visits, and increased energy usage (Snover, Raymond, Roop, & Morgan, 2019).

Snohomish County, Washington Annual Average Temperature, 1900-2024 (National Oceanic and Atmospheric Administration, 2025)

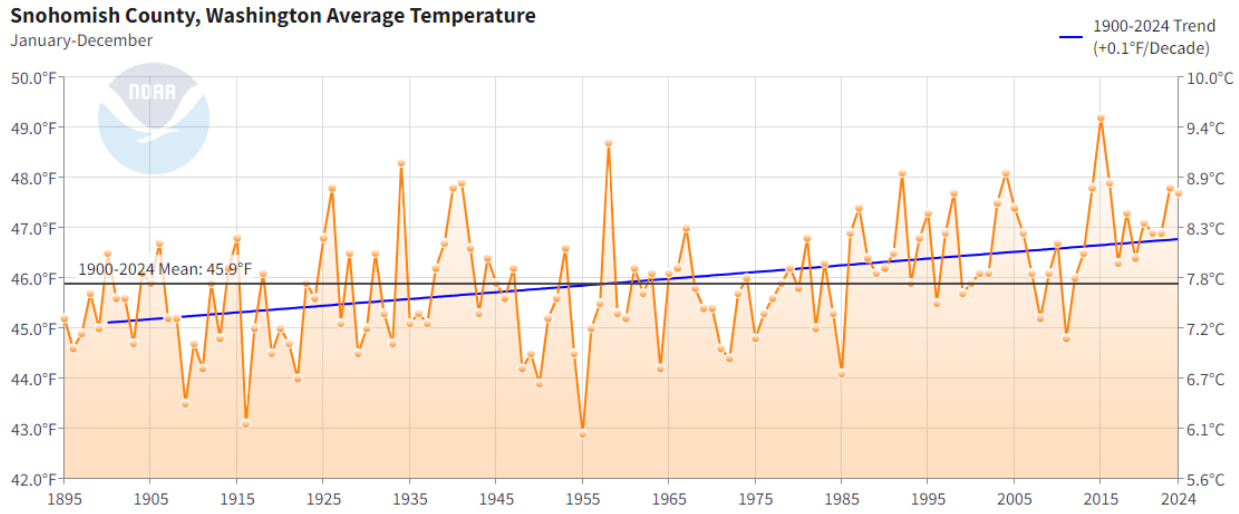


Figure 2 – Snohomish County Average Temperature 1900 – 2024
Source: National Oceanic and Atmospheric Administration

The Olympic Mountains to the west, across Puget Sound, shelter the area from excessive precipitation coming off the Pacific Ocean. Annual precipitation in the western part of the county is 35 inches but increases sharply as the elevation climbs into the Cascade Mountains (Index, 110" - 120"). This precipitation is concentrated between October and May, with June through August typically receiving less

than 1.5 inches per month. The frequency of extreme precipitation events from atmospheric rivers are projected to increase across the Northwest and reach farther inland (U.S. Global Change Research Program, 2023). Snohomish County is dominated by a moist vegetation zone where most rainfall occurs in the winter and higher elevations receive a large snowpack that can persist until June and July. This provides an ideal environment for long term, large tree growth with a robust understory. The coastline of the county sometimes experiences fog or low clouds in the summer that can mitigate the effects of heat and drought. Strong wind driven storms typically occur in the winter during the higher precipitation season. However high heat events in the summer can trigger synoptic east wind events that can bring strong winds to the western slopes of the Cascades. (Reilly, Matthew J., et. al, 2021)

1.3.5 Wildland Urban Interfaces (WUI)

Areas of development near forested areas, grasslands and other sources and conditions for wildland fire ignition are classified as the Wildland Urban Interface, or WUI. The Federal Register defines the WUI as "a community [that] exists where humans and their development meet or intermix with wildland fuel.". It is characterized into three categories Intermix, Interface and Occluded communities and defined as such:

- **Interface Community** – According to the Federal Register, the Interface Community exists where structures directly abut wildland fuels. In an interface community there is a clear line between the wildland fire fuel sources and the developed community. Densities within these communities average three structures per acre, or alternatively can be defined as a community with 250 people or more per square mile.
- **Intermix Community** – The Intermix Community exists where structures are scattered throughout a wildland area. There are no clear lines of development between the vegetation and built structures in these areas, and densities can range from a few structures close together to one structure per 40 acres, or alternatively as 28-250 people per square mile.
- **Occluded Community** – The Occluded Community generally exists in a location, often within a city, where structures abut an island of wildland fuels (e.g., park or open space). Development densities are similar to Interface Communities, but the occluded area is typically smaller, less than 1,000 acres in size, and is present within or around the development of the community.

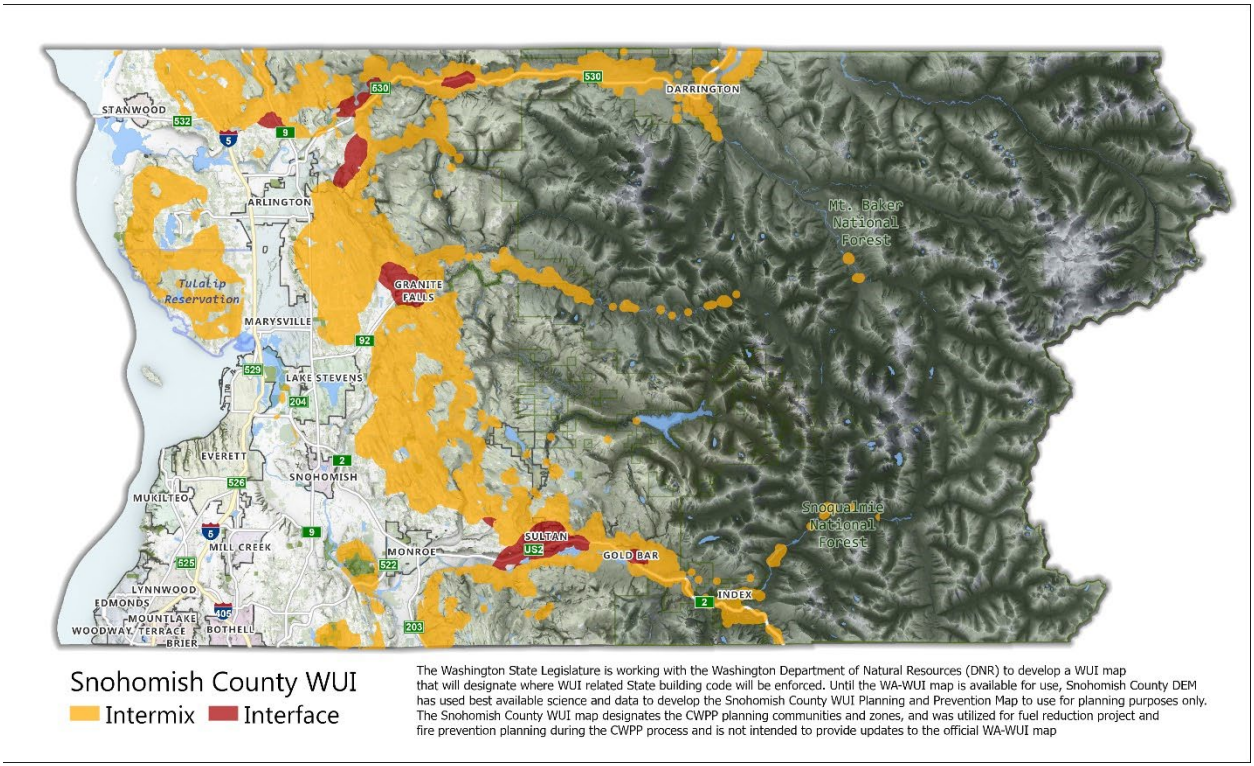
CWPP guidance recommends focusing on both the Interface and Intermix communities, and for the purposes of this plan, "WUI areas" will refer to the Intermix and Interface only, unless otherwise specified. This base plan will address conditions and fuels within both the Intermix and Interface categories within the county. That said, occluded communities have their own needs and planning considerations. Community forests and greenspaces are valuable assets to urban residents, as they preserve natural spaces among development and mitigate the heat island effect (US Environmental Protection Agency, 2025). The County recognizes the unique challenges of balancing the need for preserving urban tree canopy while mitigating fire risks, and will include a future annex for the occluded communities within the Southwest Urban Growth Area.

Wildland Urban Interface (WUI): where humans and their development meet or intermix with wildland fuel.

Roughly 130,000 people live within WUI areas of Snohomish County, including parts of the following communities: Arlington, Darrington, Gold Bar, Granite Falls, Index, Monroe, Snohomish, Stanwood, and Sultan.

The Snohomish County Wildland-Urban Interface areas were determined by identifying all locations within the County with a housing density greater than or equal to one structure per 40 acres. Structures used for this analysis came from the Snohomish County Enhanced Emergency Services Communication System address database representing all dispatchable addresses within the local 911 system. For each of these locations, structures adjacent to greater than 50% wildland vegetation cover within a 500-meter radius were classified as being located within intermix WUI. If those structures did not meet this definition, the distance was measured to the closest large area (greater than or equal to 5 square kilometers) of wildland vegetation. Structures within 2.4 kilometers of such an area were classified as Interface WUI[i].

The Washington State Legislature is working with the Washington Department of Natural Resources to develop a WUI map that will designate where WUI related State building code will be enforced. Until the WA-WUI map is available for use, Snohomish County DEM has used best available science and data to develop the Snohomish County WUI Planning and Prevention Map to use for planning purposes only. The Snohomish County WUI map designates the CWPP planning communities and zones. It was used for fuel reduction project and fire prevention planning during the CWPP process, but is not intended to provide updates to the official WA-WUI map. The Snohomish County WUI map can also be found in Story Map format online at https://storymaps.arcgis.com/stories/27e3d9b6c67846c5a07799b3d4e6f2cd. When WA DNR releases the official base-level wildfire risk map, Snohomish County will adopt the same or substantially similar risk criteria, as per RCW 19.27.560.

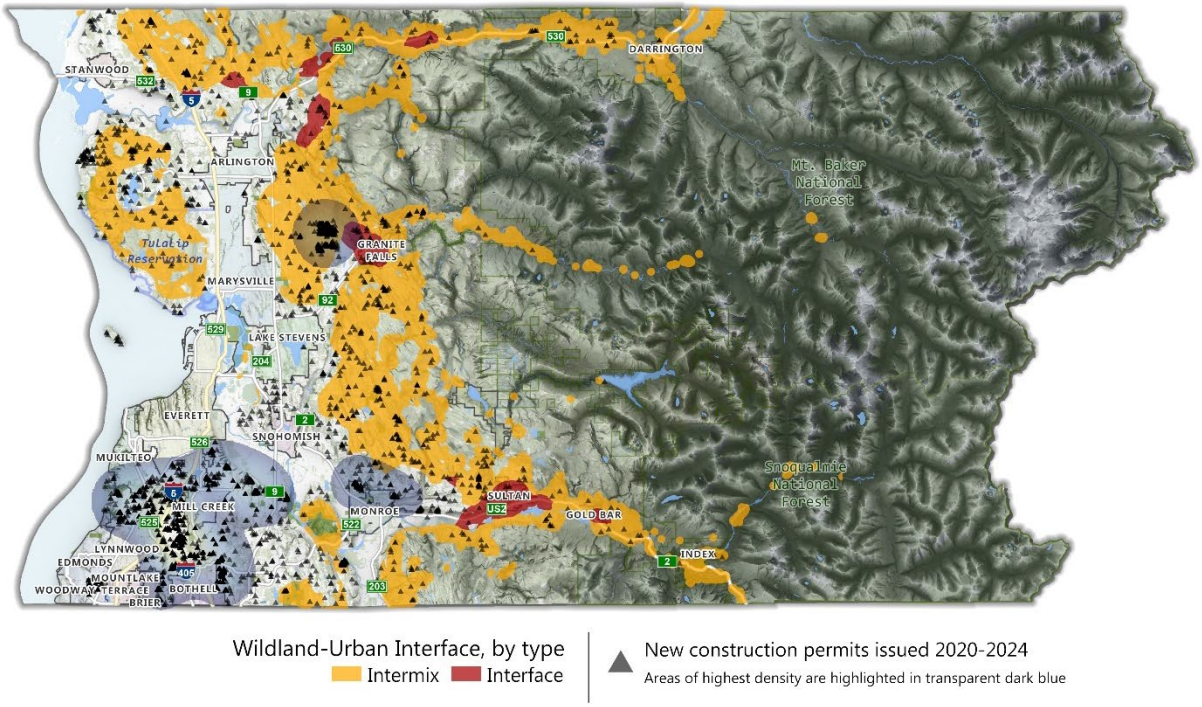


Map 1 – Wildfire Urban Interface and Intermix in Snohomish County

1.3.6 Land Use and Development

Development in unincorporated Snohomish County is regulated by Snohomish County Code Title 30, the Unified Development Code (UDC). Incorporated cities and towns within the county implement their own development codes and regulations. Snohomish County plans under the Growth Management Act of Washington RCW 36.70A, which requires counties to direct the majority of development into urban areas where infrastructure exists, and to limit growth in rural areas, including requirements to protect critical areas and farmland. Growth in the county is monitored by Planning and Development Services and published in regular Growth Monitoring Reports as required under the Countywide Planning Policies. According to the 2024 Growth Monitoring Report, 15% of the total housing units permitted since 1990 have been in the Rural/Resource areas, where many of the WUI areas are also located. However, Snohomish County Planning and Development Services (PDS) has seen a decline in the percentage of housing units in the Rural/Resource areas in the last six years when it has remained below 10% consistently (Snohomish County Planning and Development Services, 2024).

While land use, zoning and subdivision permits are regulated under the UDC, Snohomish County uses the International Building Code to regulate building permits and improvements, including seismic, snow and construction material requirements. In the last five years the County has issued 4,926 total residential building permits including 1,051 permitted within the WUI areas. Of those, 52 were issued within the Interface area and 999 within the Intermix area. The following map shows a breakdown of permits issued in the WUI planning layers.



Map 2 – Residential Building Permit applications in the Wildfire Urban Interface and Intermix in Snohomish County 2020 - 2024

An emerging trend is the recent increase in Rural Cluster subdivision applications. A Rural Cluster subdivision is an alternative to the lot subdivision process in the Rural/Resource areas where developers can group lots into compact clusters as long as they preserve restricted open space within the development. Depending on how much open space the developer proposes to designate, they can receive between a 15-35% density bonus within the subdivision. For example, in certain areas of the Rural Residential 5 (1 home per 5 acres) zone a developer could purchase a 50 acre lot and subdivide it into six 5-acre (217,900 sq.ft.) lots under regular zoning regulations. Under the Rural Cluster Subdivision process, that developer could designate 45% of the total acreage as open space and qualify for a residential density of 1 lot per 200,000 square feet plus a 15% density bonus. This would allow the developer to fit an extra lot into the subdivision. Between 2008 and 2023, the county averaged 40 rural cluster lot applications per year. In 2024, that number spiked to 505 rural cluster lot applications, which was the largest annual total since 2007 according to PDS.

1.3.7 Environment and History of Wildfire

The Western Cascades are dominated by Douglas-fir (*Pseudotsuga menziesii*) and western hemlock (*Tsuga heterophylla)* forests. These species dominate the forest floors in Western Washington and are intermixed with other native tree species such as western redcedar (*Thuja plicata*), Sitka spruce (*Picea sitchensis*), bigleaf maple (*Acer macrophyllum*), vine maple (*Acer circinatum*), red alder (*Alnus rubra*), and black cottonwood (*Populus trichocarpa*). In healthy Western Washington forests, the understory consists of larger bush and berry species such as salmonberry (*Rubus spectabilis*), red elderberry (Sambucus racemose), goat's beard (*Aruncus dioicus*) and red huckleberry (*Vaccinium parvifolium*) accompanied by various species of mosses and ferns. These forests transition into alpine species as elevation increases where the dominant tree species shift to mountain hemlock (*Tsuga mertensiana*), alpine fir (*Abies lasiocarpa*), and Engelmann spruce (*Picea engelmannii*) while the understory transitions to support alpine berry species such as the evergreen huckleberry (*Vaccinium ovatum*) and the Cascade blueberry (*Vaccinium deliciosum*).

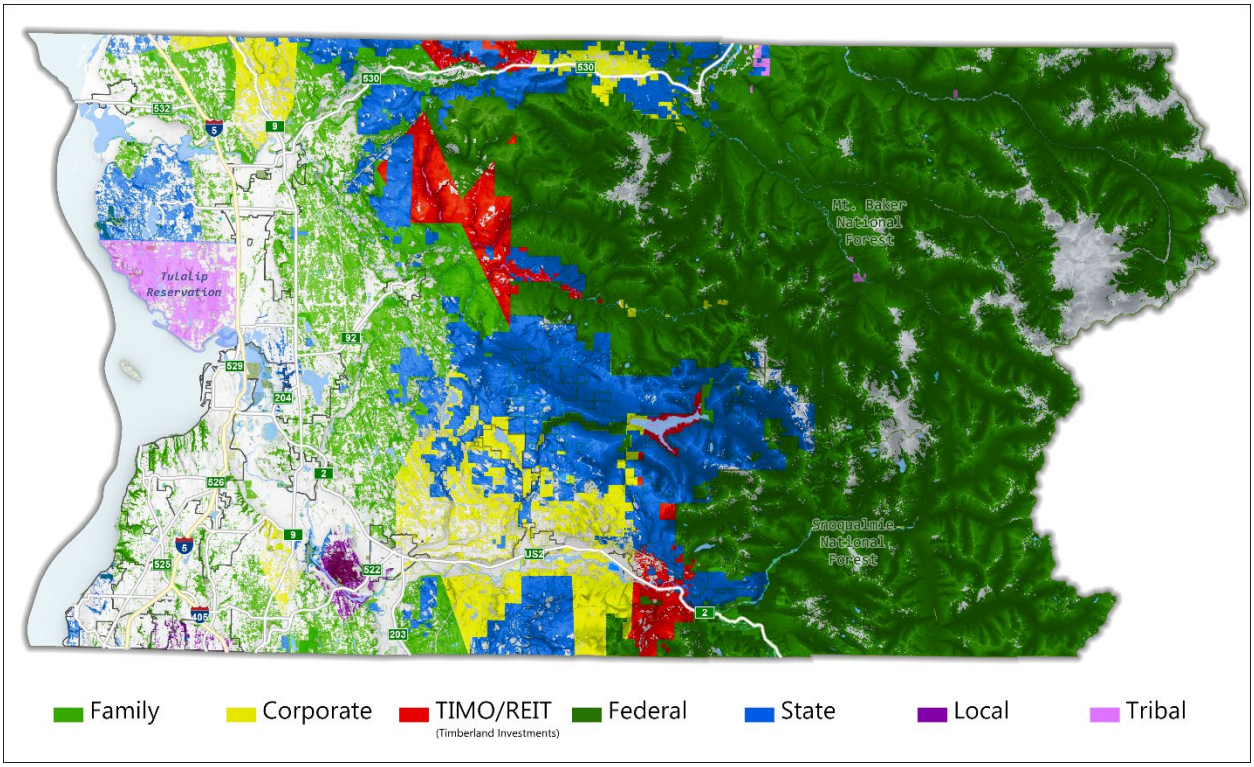
There are almost 1 million acres of forestland within Snohomish County. The majority of our forest acreage is managed by the US Mount Baker-Snoqualmie Forest, in addition to Washington State Department of Natural Resources, Tribal ownership, Snohomish County Department of Conservation and Natural Resources, collaborative timber investments, and private timber stands. Forestlands dominate the east side of the County in the mountains and foothills, and some communities are intermixed with second-growth forest in the lowlands, especially in the north county. Most of the forests outside of the wilderness areas have been previously harvested and contain second-growth conditions where tree stands are more dense than historic, old growth forests. Many private and publicly managed forests have been replanted through aerial seeding or hand planting, with the intention of a future harvest, either through thinning or even-aged management. Some forests within the Mount Baker-Snoqualmie National Forest and other private tree farms have grown past their intended harvest dates for various reasons including the Northwest Forest Plan restrictions or changes of ownership and use of private lands. This has led to issues such as monoculture and densely planted forests lacking diverse understory.

Estimated Forestland by Ownership in Snohomish County 2025 [ii]:

Ownership/Management Type	Acreage
Federal	591,884
State	170,775
County	4,584
Private	211,353
Tribal	15,671
Total	**994,267**

Table 7 – Estimated forestland by ownership in Snohomish County, Source: US Forest Service

Forestlands by Ownership 2025

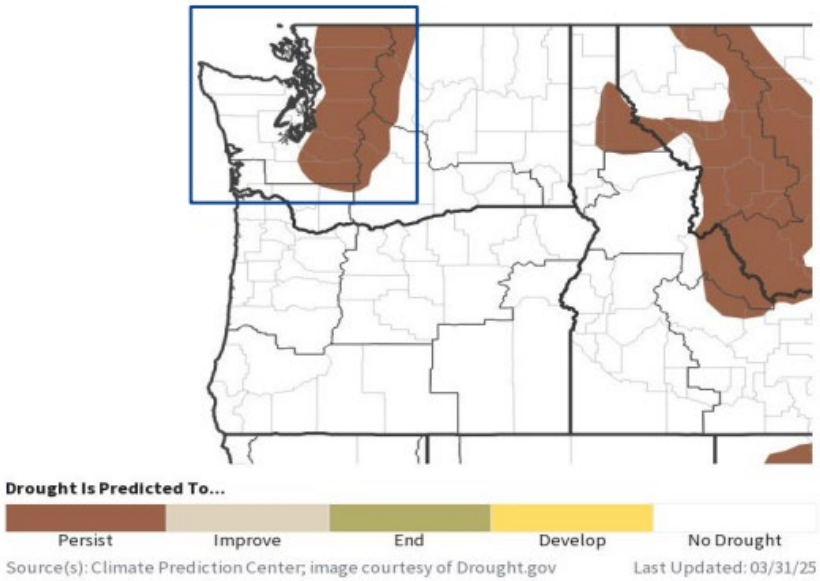


Map 3 – Forestland in Snohomish County by Ownership in 2025, Source – US Forest Service

Tree mortality in western Washington forests occurs for a variety of reasons, and in turn creates additional forest health impacts and wildfire risk. Tree mortality is not generally caused by one stressor but rather a combination of stressors, such as disease, insect infestation, heat and/or drought. Changes in climate increase the severity of these stressors leading to larger tree mortality events. These events may have consequences for wildfire mitigation, such as increased sunlight for the spread of flammable invasive species or increased fuels. A full list of tree diseases and insect pests within forests of Washington State can be found on the DNR Insects and Diseases webpage (Kohler, Glenn, WA DNR, 2025).

Figure 3 – Dense stand of aerial seeded Douglas-fir at Lord Hill Regional Park shows signs of stress and lacks biodiversity (May 2024)

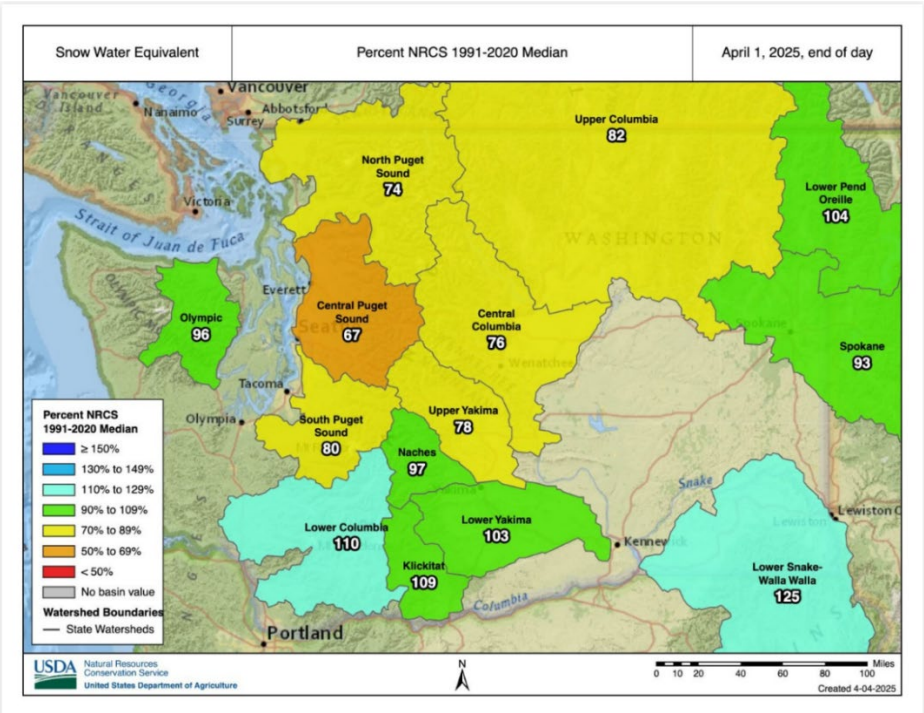
Drought is a common stressor of forest health. Drought typically develops gradually and can last for months to years. This can make it challenging to pinpoint the exact beginning and end of a drought. Consequently, it can take weeks or months to conclusively identify drought conditions.



Map 4 – National Weather Service Drought Outlook for 2025, Source: US Climate Prediction Center

Snohomish County has been included in nine drought declarations since 2001:

- 2001 – Statewide declaration
- 2005 – Statewide declaration
- 2015 – Statewide declaration
- 2019 – 27 Watersheds
- 2021 – Statewide declaration
- 2022 – Extension of 2021 statewide declaration
- 2023 – 12 watersheds/12 counties in the emergency drought declaration with a statewide advisory
- 2024 - Statewide declaration
- 2025 – 19 watersheds/12 counties in the emergency drought declaration



Map 5 – Spring 2025 Snowpack Levels, Source: UW Climate Impacts Group

Drought conditions and water restrictions were declared by the Washington State Department of Ecology in 2023 in portions of Snohomish County within the Skagit watershed and the full county has been included in a Drought Advisory in both 2024 and 2025 (Department of Ecology, 2025). The snowpack in the Cascade Mountains trended below the median in 2025, with the Central Puget Sound Region at only 50-60% of the median snowpack (Genuise, 2025). This has led to a Moderate Drought declaration by the US Drought Monitor for most of Snohomish County as of April 2025 (National Oceanic and Atmospheric Administration, 2025). As of May 25, 2025 the snowpack level at the 2 monitoring stations in Snohomish County were less than 50% of the 1991-2020 median (United States Department of Agriculture, 2025).

The National Wildfire Coordinating Group identifies four critical weather elements that can produce extreme fire weather – low relative humidity, strong surface winds, unstable air, and drought. In Western Washington, east winds, or Chinook winds, occur when unusually warm and dry downslope winds occur

on the leeward side of the Cascades, the slopes that typically are sheltered from prevailing winds. These Chinook winds can create significant fire spread in a short period of time, especially during hot, dry, unstable weather events. (National Wildfire Coordinating Group, 2025) The National Weather Service will issue a red flag warning during periods of high temperatures, very low humidities, and stronger wind combinations to warn of the increased fire risk. (National Weather Service, 2025)

According to the Washington State DNR Large Fire Dataset (1973 – 2023) there have been 12 large wildfire events in Snohomish County (Washington State Department of Natural Resources, 2024). The four largest fires, Bolt Creek, Suiattle River, Downy Creek and Dome Peak have occurred in the last five years. Prior to 2003, there were no recorded large wildfires within Snohomish County. However, historic records have shown that wildfires have raged through the Snoqualmie and Skykomish valleys in the past. This notably includes a series of fires that burned in 1893 between Skykomish and Wellington along what is currently Stevens Pass, that spread from a large fire burning along what is now Snoqualmie Pass. (Snoqualmie Valley Historical Society Board, 2022)

Figure 4 – Wildland firefighters respond to the Bolt Creek Fire in 2022

According to the U.S. Forest Service's Northwest Forest Plan, Snohomish County contains a mix of:

- moist vegetation forests that experience infrequent, high-severity fires (comprising most of the county), and
- forests, meadows and prairies that experience moderately frequent, mixed-severity fires in the Stillaguamish and Skykomish valleys. (Spies, Hessburg, Skinner, et. al, 2018)

Historically, infrequent, high-severity fires have occurred in the moist vegetation zones of Western Oregon and Washington with an average occurrence rate of 200 – 1,000 years. In these fires, areas that ranged from under 25 acres to over 400,000 hectares experienced over 70% tree mortality from a fire. The

moderately frequent, mixed-severity fires impact the interior valleys up to the western slopes of the Cascades and experience between 20-70% tree mortality. These areas are typically warmer and drier than the areas with infrequent fire history, and experience more lightning strikes. Additionally, fire scar research in Western Oregon has shown that Douglas fir – Western hemlock forests in the Pacific Northwest experienced frequent, small, low-intensity fires, mostly ignited by Indigenous peoples throughout the northwest for land stewardship objectives. However, there is also evidence of less frequent large wildfires that likely coincided with hot, dry weather patterns and periods of fire weather. (Borden, Fitzgerald, Berger, & Groth, 2024)

2.0 Risk and Response

2.1 Wildfire Risk Analysis

Many factors contribute to wildfire risk, and there are no definitive methods for predicting when, where, or how intense a wildfire will be. However, it is possible to determine which areas of Snohomish County are generally more susceptible to wildfires. By borrowing from existing standards and models used by the National Fire Protection Agency and the National Park Service for determining the amount of wildfire risk a particular structure is exposed to, a similar method was used to estimate the relative risk faced by structures in Snohomish County. These models rely on combining factors that contribute to wildfire risk in a given area, such as the amount and type of vegetation, the slope and aspect of the terrain, the presence of nearby water, the number of roads nearby, the presence of barriers to firefighting apparatus, and more. GIS analyses were used to identify areas of the county most at risk, which generally include heavily vegetated slopes in rural areas with southern exposure.
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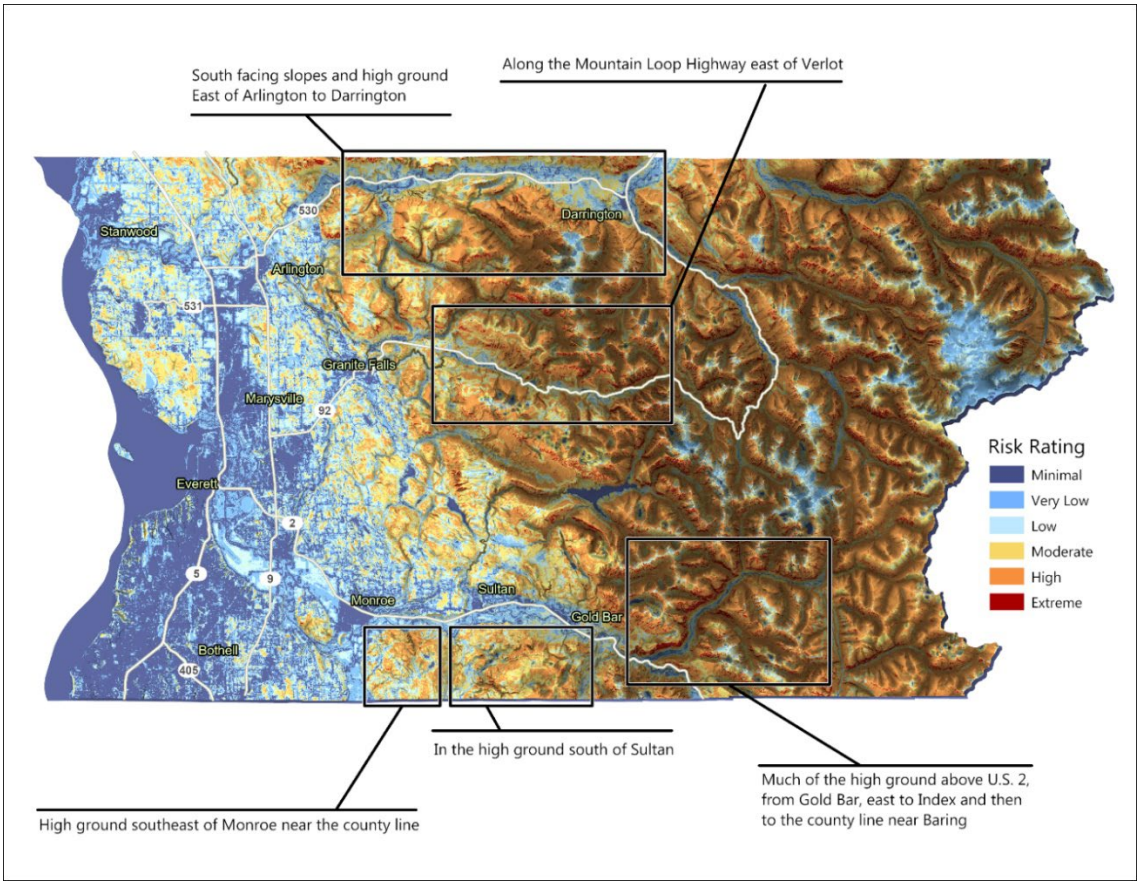


Map 6 – Wildfire Risk in Snohomish County

2.2 Fuel Sources

Fire is a chemical reaction that requires three components for ignition and spread (heat, oxygen, fuel). The air must have at least 16% oxygen saturation to burn, and drier fuel sources are more likely to ignite and sustain a burn than those with more moisture content. Examples of fuel sources include vegetation such as trees, underbrush and grasses or built materials such as decks, fences and propane tanks. Heat sources

can come from both natural and human-caused sources such as lightning, unextinguished campfires, sparks from mechanical equipment, catalytic converters and target shooting (Northwest Fire Science Consortium, 2025).

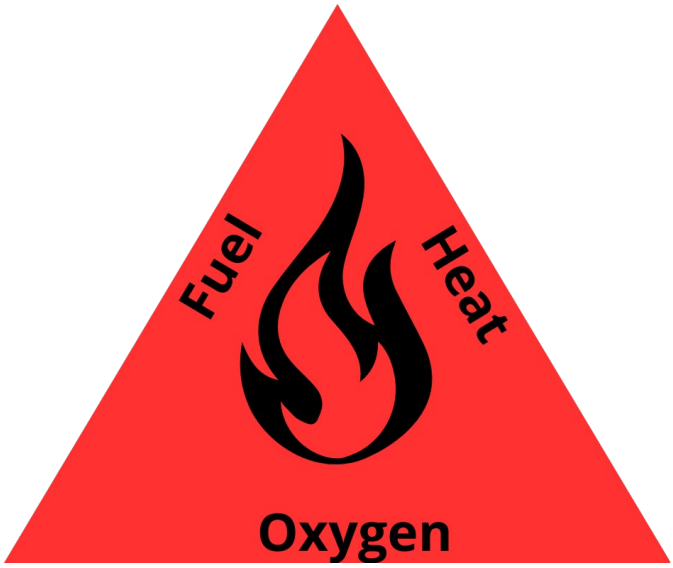


Figure 5 – Components for fire ignition and spread

Conditions that increase fire risk and could impair control include topography, wind direction, south facing slopes, decreased precipitation patterns, declining forest health and buildup of fuels (Northwest Fire Science Consortium, 2025). Topography includes slope, aspect and elevation. Wildfires tend to spread faster uphill as fuels essentially become pre-heated, lowering their moisture content as fire rapidly spreads uphill. South and southwest facing slopes receive more sunlight during the day in the Northern Hemisphere, so these slopes tend to be warmer and have lower moisture content due to the longer sun exposure. Topographic features such as canyons, saddles and passes can funnel air and fire quickly across a wide area, while others such as bedrock outcroppings, streams and roadways can act as natural fire breaks. Strong winds can exacerbate these conditions no matter the wind direction, however the high intensity, large fires on the western slopes of the Cascades have occurred during longer periods of high heat and low precipitation, and been driven by synoptic winds from the east. (Reilly, Matthew J., et. al, 2021)

High elevation forests within Snohomish County receive a higher amount of precipitation in the form of rain and snowpack than the Puget Sound lowlands and tend to contain a higher moisture content later into the year than lower elevation forests. However, a year with low snowpack, or cumulative years with lower than average snowpack can impact the moisture levels of the higher elevation forests, making them more susceptible to ignition from lightning strikes and human-caused heat sources, especially as a fire actively burns up a hill.

Other factors that increase a vegetated area's potential as a fuel source include forest health, density, and vegetation type. Table 8 identifies both natural and human-made fuel sources, and possible methods to mitigate them:

Fuel or Ignition Source	Issue or Concern	Guidance or Recommendation
Unhealthy Forest	Disease, pest, unhealthy tree densities, or drought	Prescribed treatment by forester to reduce or eliminate unhealthy conditions. Statewide forestry services can be found on the Washington State University Consulting Forester Directory.
Working Forest Fallowed	Operations cease to exist within working forests leading to unhealthy tree densities, dense underbrush and monoculture leaving trees susceptible to disease and fire	Prescribed treatment by forester to reduce or eliminate unhealthy conditions. Statewide forestry services can be found on the Washington State University Consulting Forester Directory.
Unkept Green Spaces	Community green spaces not maintained	HOA or neighborhood effort to limb trees, and reduce invasive or unhealthy understory vegetation and dead vegetative ladder fuels
Extreme Heat and Drought	Drought can weaken trees and understory plants, increasing stress on the forest. An extreme heat event, especially during a drought, can drastically reduce moisture levels in trees and desiccate the understory creating a fuel source for fires.	Thin forests and remove invasive species in understory to reduce competition for water resources. Plant trees from a warmer growing zone in addition to the trees best suited for the site and climate.

Table 8 – Sources of Wildland Fire Fuel, Source: US Fire Administration

Brush and wildland fires can be ignited by many sources. Historically in Washington State, large fires were started during dry, warm periods by lightning strikes. Recently, human activity has led to an increase in fire ignition, but changes in climate, forest health and fuel sources have also contributed to the increase in frequency of wildfires. It is estimated that 85% of wildfires in Washington State are caused by people. (Washington State Department of Natural Resources, 2025) Table 9 shows some of the leading causes of wildfire ignitions, as well as guidance to mitigate them.

Ignition Source	Issue or Concern	Guidance or Recommendation
Campfires	Fires left unattended, fires left to smolder, fires during burn bans	Educate residents and recreationists about campfire safety and burn ban restrictions
Recreation Activities	Sparks from target shooting, explosives used for target shooting, recreational fireworks	Educate residents and recreationists about wildfire risks and burn ban restrictions. Check conditions before lighting

		fireworks and consider safer alternatives
Industry Operations	Spark emitting equipment, hot cables left on ground, lighted debris pile escapes containment	Follow all DNR recommendations during fire weather, as well as the RCWs and WACs listed in the WA DNR Forest Fire Protection Book (Washington State Department of Natural Resources, 2018)
Other Human-caused Ignitions	Cigarette butts, parking hot cars on grass, vehicle parts sparking, debris pile or burn barrel embers	Educate residents about wildfire risks and activities likely to throw sparks or embers during fire weather and red flag warnings

Table 9 – Sources of Wildland Fire Ignition, Source: US Fire Administration

2.3 Assets at Risk

In Snohomish County, the WUI is home to roughly 130,000 people with property valued at more than $9.7 billion. Assets at risk include homes, businesses and critical infrastructure and facilities. Additionally, many communities have important historic and valued places that may be at risk during a wildfire.

While surrounding vegetation and weather conditions can put a community at risk for wildland fires, there are specific conditions that can put individual structures and properties at risk for ignition. They can include flammable landscaping and privacy features too close or attached to the structure, or construction materials that are not resistant to flames or embers. The following table gives examples of materials and landscaping that can put structures at higher risk for ignition and recommendations from the US Fire Administration (US Fire Administration, 2020).

Structure Component	Features that Increase Risk	Recommendation
Decks	Material stored underneath, flammable construction material attached to structure	Remove and place in closed shed, replace or treat with ignition resistant materials.
Gutters	Leaves and pine needles in gutters	Clean frequently, especially before fire season.
Eaves	Large gaps	Caulk or fill and paint over.
Vents	Open unscreened	Screen with metal screen of about 1/8 inch or replace with baffled or other fire-resistive vents.
Roofs	Poorly maintained, made of wood shakes or other combustible materials	Replace roofs with ignition-resistant designs (e.g. Class A, metal).
Structure Siding	Poorly maintained, made of wood shakes or other combustible materials	Replace siding with ignition-resistant designs (e.g. stucco).

Windows and Doors	Single-pane windows, gaps around doors	Replace windows with double-pane, tempered glass. Replace doors with fire-code rated ones. Seal gaps around windows and doors to keep embers out.
Stucco roofing	No bird stops at the ends	Clean debris such as nests from openings and cement ends or add bird stops.
Landscaping around structure	Overgrown with weeds, dry, dead vegetative matter, large flammable bushes near structure	Pay special attention to make sure the area within the first 5 feet of the home is lean and green, remove open trash receptacles, building materials and trash from next to structure.
Fencing	Flammable construction material attached to structure	Replace at least 5 feet of the flammable fencing that attaches to the home with fire resistant materials.
Pumphouse	Dead vegetation around outside	Remove all flammable material from around the building focusing on the first 5 feet and improving landscaping within 100 feet.
Sheds	Gas cans outside	Store inside locked shed, preferably inside a locker.
Chicken Coops	No door, hay and flammable material inside	Install door.

Table 10 – Structures at risk for ignition, Source: US Fire Administration

During a wildfire, homes and buildings are most likely to ignite from floating embers or spreading ground flames. Embers can enter buildings through uncovered vents, eaves and soffits; flames can spread to buildings through attached wood fencing and decking; and unmaintained landscaping can create a chimney effect spreading fire to gutters and roofs (FEMA, US Fire Administration, 2025). Fire industry experts recommend creating defensible space around homes and buildings, and replacing standard decking, fencing, soffits and screens with more fire-resistant materials (National FIre Protection Association, 2025). When building new homes or remodeling, consider using Class A fire rated building materials and insulation and adding double paned windows and doors. Adding 5 feet of non-vegetative space around the perimeter of the building using rock or concrete, building a patio or using fire resistant composite decking can keep flames from spreading to homes.

When reducing the fire risk on a property, the National Fire Protection Association's guidance varies according to distance from the home. Figure 6 depicts the National Fire Protection Association's three "Home Ignition Zones."

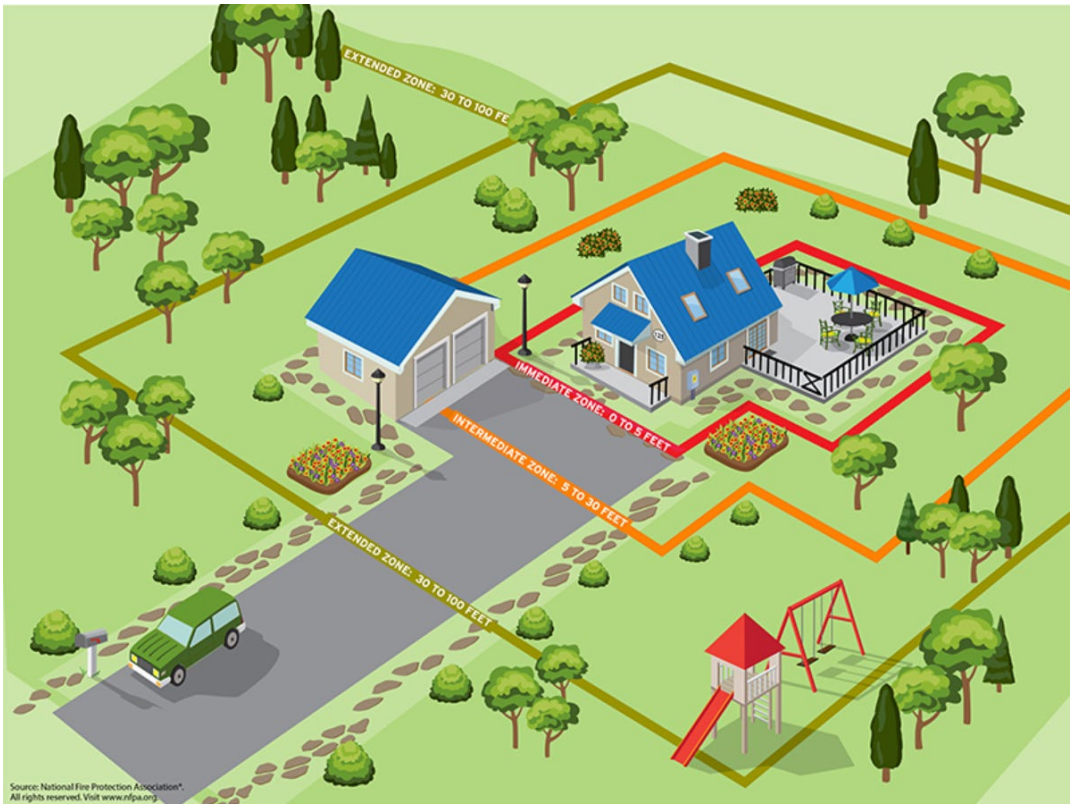


Figure 6 – The Home Ignition Zone, Source: National Fire Protection Association

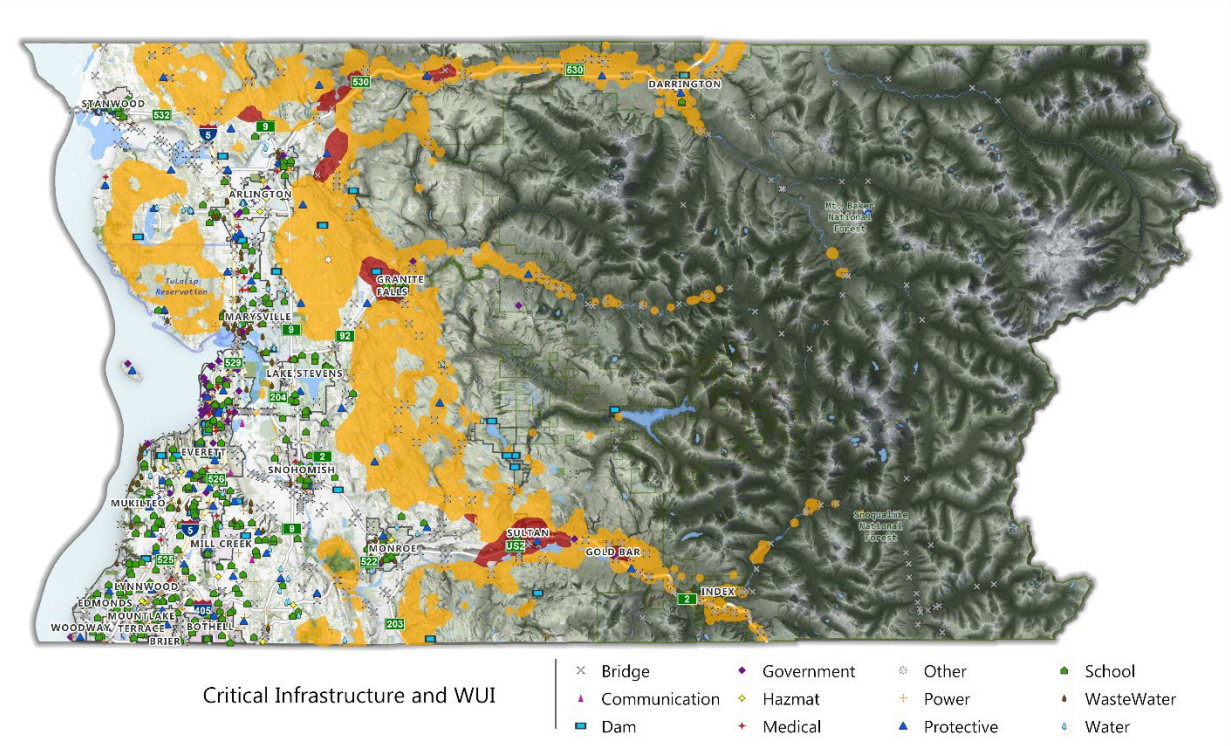
Within the Immediate Zone, 0-5 feet from the building, consider removing all vegetation within a 5-foot perimeter. Keep gutters clean and consider replacing older shingle and shake roofing with metal. Replace standard mesh on vents or uncovered vents with 1/8 inch metal screening and consider replacing wood fencing and decking with composite materials.

In the Intermediate Zone, 5-30 feet from the building, thin branches on large bushes and older hedges. Keep lawns mowed or consider native, low growing lawns and keep trees and bushes spaced or grouped with large gaps between them. Create fire breaks with sidewalks, driveways and other pathways.

In the Extended Zone, 30-100 feet from the building, small forest owners should perform annual forest maintenance to reduce fuel sources around their properties, and neighborhoods may consider work parties or contractors to maintain natural areas around homes. Clean up storm debris and use chipper programs if available in the community. Working forest landowners should consider creating a thinning and harvesting plan with a forester to create healthy forests and maintain recommended tree spacing. Keep petroleum, wood piles and other fuel sources at least 30-50 feet away from buildings or keep them inside a climate-controlled building.

Additional assets at risk in Snohomish County include the critical facilities and infrastructure that support and connect the communities. Wildfires can damage power transmission lines, bridges, community centers, schools and many other structures that are vital to the community. Sometimes, and if possible, fire crews will place defensible positions around these facilities or infrastructure components to protect

them from fire damage, and it is important to identify these locations that may be critical for the community to respond to and recover from a wildfire.



Map 7 – Critical Infrastructure and Key Resources within WUI areas of Snohomish County

2.4 At-Risk Communities and Individuals

Exposure to wildfire smoke can cause serious health effects for everyone, and everyone should take steps to reduce their smoke exposure during wildfire smoke events. Some individuals are especially sensitive to smoke exposure, including people with asthma or other respiratory diseases, cardiovascular disease, children, pregnant people, older adults, low-income households, unsheltered individuals, and outdoor workers (US Environmental Protection Agency, 2025).

Wildfire smoke contains a mixture of very small particles and gases. The composition of wildfire smoke is related to the fire conditions and material burned, which varies between fire events. Some fires predominantly burn vegetation, while others that enter WUI areas can also burn vehicles, structures, or other materials that may cause more severely degraded air quality.

Particulate matter is the principal public health threat from exposure to wildfire smoke (Office of Air Quality Planning and Standards, 2021). Particulate matter is a general term for particles suspended in air, usually a mixture of solid and liquid droplets. The size of the particles impacts their potential health effects. Particles larger than 10 micrometers in diameter do not typically reach the lungs. Particles with diameters less than 10 micrometers (PM10) can be inhaled into the lungs and affect the lungs, heart, and blood vessels. PM2.5 (also known as fine particulate matter) is especially concerning and refers to particles 2.5 micrometers or smaller. While the size of particles from wildfire smoke varies, approximately 90% of total particle mass emitted from wildfires is PM2.5 or smaller (Office of Air Quality Planning and Standards,

2021). According to the Washington State Department of Health, PM2.5 is one of the most important air pollutants of health concern in Washington. Exposure to PM2.5 has been associated with a growing range of health effects. PM2.5 "can be inhaled deep into the lungs, and the smallest particles can cross into the bloodstream and enter systemic circulation, and can exacerbate and lead to many health problems. PM2.5 has been linked to decreased lung function, increased respiratory symptoms including asthma attacks, exacerbation of existing heart disease, nonfatal heart attacks, irregular heartbeat, premature death among people with existing heart and lung conditions, cognitive impacts, adverse birth outcomes, and negative impacts on mental health." Research has also shown that particulate matter can enter the brain through the blood-brain barrier or directly through the olfactory nerve when inhaled through the nose.

The EPA uses the Air Quality Index (AQI) to communicate air quality conditions to the public. The AQI converts pollutant concentrations (including PM) to a numeric scale from 0 to 500. Higher AQI values correspond to greater levels of air pollution and health concerns. AQI values are reported in six color-coded categories ranging from good to hazardous. For example, AQI values ranging from 101 to 150 are considered unhealthy for sensitive groups. Local AQI conditions and forecasts can be found at AirNow.gov.

Air Quality Index		
Levels of Concern	Values of Index	Description of Air Quality
Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The public is less likely to be affected.
Unhealthy	151 to 200	Some members of the public may experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

Table 11 Air Quality Index Levels of Concern
Source: US Environmental Protection Agency (EPA)

The AQI can be used as a guide for residents and government agencies to take action. DOH provides recommended actions for each AQI category. When air quality reaches unhealthy levels (AQI 151-200) everyone should take steps to reduce their exposure. For most residents, it's best to stay indoors and take steps to keep their indoor air clean. DOH and EPA provide recommendations residents can use to keep their indoor air clean, such as filtering air through an HVAC system, portable air cleaner, or DIY filter fan. The EPA also provides recommendations for how to create a clean air room at home.

Managers of commercial and public buildings should consider ways to keep building occupants safe during wildfire smoke events. For this, the EPA has developed *Best Practices for Improving Indoor Air Quality in Commercial/Public Buildings During Wildland Fire Smoke Events.* This document provides a concise and

complete source of information on steps that can be taken to reduce the impacts of wildfire smoke in commercial or public buildings. This publication is helpful for commercial/public building managers, building owners, school administrators, local and tribal government agencies, and more. For more technical guidance, HVAC professionals, architects, design engineers, and construction contractors should review ASHRAE Guideline 44-2024, *Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events*.

Between 2020 and 2024, people in Snohomish County experienced 21 days of air quality index numbers that were unhealthy for sensitive groups, 14 days of unhealthy air quality for everyone, four days of very unhealthy air quality and one day of hazardous air quality (Puget Sound Clean Air Agency, 2025). Table 7 shows the historical air quality in Snohomish County between 2014 and 2024 as tracked by the US Environmental Protection Agency (EPA).

Historical Air Quality in Snohomish County						
Year	# Days Good	# Days Moderate	# Days Unhealthy for Sensitive Groups	# Days Unhealthy	# Days Very Unhealthy	# Days Hazardous
2024	262	104	0	0	0	0
2023	246	116	2	1	0	0
2022	210	129	13	6	3	1
2021	248	114	3	0	0	0
2020	234	122	3	3	4	0
2019	227	136	1	0	0	0
2018	260	96	5	4	0	0
2017	244	105	13	3	0	0
2016	278	85	3	0	0	0
2015	238	112	10	2	0	0
2014	241	120	4	0	0	0

Table 12 Historical Air Quality in Snohomish County
Source: EPA Air Quality Report

Many people may be at increased risk when exposed to wildfire smoke. It's important for people to understand their risks and the underlying causes. People with asthma, COPD, or other lung diseases are at risk because smoke exposure can cause breathing difficulties and exacerbate their diseases. People with cardiovascular disease are at risk because smoke exposure can trigger cardiovascular events. Children are at risk because their lungs are still developing, and they breathe more air per pound of body weight than adults. Babies exposed to fine particulate matter in utero are at risk of impaired brain development that can lead to learning and memory problems (Jaiswal & Kumar Singh, 2024). Older adults are at increased risk because they are more likely to have recognized or unrecognized heart and lung conditions, and because important physiological defense mechanisms decline with age (US Environmental Protection Agency, 2025). Individuals with extended exposure, such as outdoor workers and unsheltered individuals, are also at increased risk. Workers and employers should be aware of requirements and safety precautions contained in Washington State Labor and Industries Wildfire Smoke Rule.

The Pacific Northwest, including Snohomish County, has low rates of centralized air conditioning. This means that many buildings are unable to incorporate the high levels of air filtration necessary to mitigate the impacts of particulate matter. In the summer of 2024, the Center For Independence (CFI), in the

Marysville area had participants cancel appointments because they could not mitigate the smoke impacts upon leaving their homes. CFI staff also experienced issues with air quality and trying to mitigate poor air quality conditions inside buildings. During periods of marine air inversion and wildfire smoke conditions, some residents mistook the smoke for marine air and did not take smoke precautions.

The Snohomish County Department of Human Services has found it challenging to locate facilities with MERV13 filters to serve as cleaner air centers. MERV13 or higher rated filters are recommended during wildfire smoke because they can remove at least 50% of the smallest particles from the air. However, not all HVAC systems can accommodate MERV13 filters and HVAC improvements can be costly. In 2025, Snohomish County provided funding to Everett and Sno-Isle libraries to repair and improve their HVAC systems. During extended smoke events, the library locations can provide filtered air and serve as cleaner air centers. Everett libraries have installed MERV13 filters year-round, and Sno-Isle Libraries has MERV13 filters on-hand and ready to deploy in advance of smoke events. There is a need for additional public facilities that can serve as cleaner air centers. Snohomish County Human Services is continuing to seek potential locations. The EPA provides guidance on the identification and preparation of cleaner air centers in *Appendix B of Wildfire Smoke a Guide for Public Health Officials.* When activated, cleaner air centers are listed on the Public Safety Hub. It's important to note that traveling to and from a cleaner air center to seek short-term relief can also have health consequences. While facilities with MERV13 filters provide improved indoor air quality, specific air quality thresholds cannot be guaranteed. Other factors can impact indoor air quality, including how secure the building envelope is, if the entryway has an air-lock style vestibule, how frequent entryways are used, and more. Whether to create a clean room at home or leave for a public cleaner air center will depend on factors that the individual must assess. Accessing a cleaner air center can be difficult for many individuals with medical conditions, mobility challenges, or other access and functional needs. Due in part to these concerns, it's important to also pursue mitigation strategies that help at-risk populations stay safe in their own homes, such as increased access to portable air cleaners and public education on how to create DIY filter fans.

The Bolt Creek Fire began on September 10, 2022, burning 14,820 acres across King and Snohomish Counties. While the majority of the fire burned on US Forest Service land, residents were evacuated in, and into, Snohomish County. Air quality was impaired significantly by smoke from the fire and three other fires burning in the area. Due to the air quality conditions, Snohomish County deployed portable HEPA filters to the Index Elementary School to improve their air filtration. During the fire, transport of vulnerable residents was difficult, and according to CFI, some patients canceled dialysis appointments. Some cancelations were due to smoke conditions and others due to difficulty finding transportation options. Particularly in transportation-constrained mountain areas, long-term road closures for fire response and burn scar hazards also cut people off from services. During the Bolt Creek Fire the Hope Link transportation service, brought a patient from the Skykomish area around the Highway 2 closure to an appointment in Everett, a detour of approximately 150 miles. Wildfire response and recovery training for social services, medical and senior facilities staff could include re-scheduling appointments in towns closer to the client or at another time if possible.

While most households within the Snohomish County WUI have access to privately owned vehicles, many of the most vulnerable do not. During an evacuation, transit services could provide coaches to support evacuations, but the constrained road network and vulnerable nature of the populations needing transportation mean that pre-planning, and pre-education of the public, will be critical for this to go

smoothy. Transit operators and transportation service providers are also concerned that power outages during a fire response could impact communications for transit agencies and make it difficult for emergency services to communicate with smaller route providers. Many smaller transit services, such as those that provide transportation for individuals with access and functional needs, rely on cell service for communication and do not have access to emergency or dispatch radios.

Power shut offs for fire response or ignition prevention, whether planned or not can also have major impacts on individuals in the community. A long-term outage could spoil fresh foods, and prevent people from acquiring critical goods such as gas and food. Individuals who are dependent on medical equipment may have issues keeping their equipment running during a long-term power outage. Internal battery powered generators need to be recharged after 24-72 hours of use and gas generators create noise pollution, require fuel and must be used outdoors. While utilities and some fire agencies keep lists of individuals and facilities with powered medical equipment and may be able to assist with relocating those people or providing back up battery sources, documentation is not complete and is sparse in some areas.

Figure 7 – Gas cans, generators and extension cords ready for distribution to residents with livestock and medical devices in Okanogan County, 2020

2.5 Risks to Infrastructure, Industries and Economies

Snohomish County DEM met with representatives from various Federal, State and Local government agencies, tribes, City mayors, nonprofits, foresters and private timber companies to better understand the potential impacts of wildfires to their businesses and communities. The following sub-sections detail the impacts of wildfire response and recovery.

2.5.1 Tribes, Cities and Fire Agencies

The communities within and adjacent to WUI areas are concerned about the same impacts from wildfires in and near their communities. Some of these areas have experienced nearby large fires within the last five years including the Town of Darrington and the Town of Index. Many of the smaller communities in the foothills are located along a major state or U.S. highway without alternative routes in or out. These foothill communities depend on goods and services in the lowlands, and a long-term highway closure can be a major disruption to business and life. These major highway routes are also the main routes of evacuation during a wildfire, but are typically two lanes with narrow shoulders. An accident can cause a closure and/or major traffic back-ups. During the Bolt Creek Fire in 2022, there were no local alternative routes to Highway 2 east of Index for goods and supplies to arrive in the Skykomish Valley. Suppliers had to use I-90 to the south and drive around to serve the communities along Highway 2.

Critical infrastructure could be at risk as well, including the Darrington and Index water systems which are located adjacent to and within forested lands. Fires can also impact already limited resources in rural areas. This limited access is especially concerning for senior communities such as Warm Beach Senior Community, residents without cars, tourists and visitors. Poor air quality from wildfire smoke also impacts the ability for tribal elders, children and members with medical issues to travel to obtain basic services and supplies.

Figure 8 – Smoke from the Labor Day fires in 2020 impacts the Town of Darrington

Most large fires in and around Snohomish County have occurred on USFS land, in areas difficult for fire ground crews to access. While most fires in the wilderness are not a threat to developed areas, infrastructure and transportation routes can be impacted, and with the right conditions, high winds and embers from those fires could endanger developed areas and rural communities. Schools and other community facilities and programs are supported by DNR forestland harvests, and many of these forest plots are located in areas with higher wildfire risk. A large fire on DNR land or USFS land near Darrington, for example, would impact tourism, logging operations, mills and other natural resource jobs.

While most of the county's growth is located in the urban areas, there is a steady growth, including a surge of rural cluster residential permits in and around the WUI areas. Many new residents to rural areas are unfamiliar with hazard risks, including wildfires. Development regulations should be monitored and updated around wildfire risks. Planners can consider options such as allowing alternative landscaping screens like concrete walls, limiting vegetation requirements in parking lot and perimeter screens, or requiring composite materials for decking and fencing within 30 feet of structures in WUI areas. Jurisdictions are required to monitor and update critical area codes under the Growth Management Act of Washington, and part of that process should ensure that residents can maintain healthy forest and understory conditions to reduce wildfire risks and inhibit invasive species growth, including in commonly owned open and protected spaces.

Recovery and rebuilding efforts post wildfire create concerns for WUI communities. It is important to understand mitigating the risks of wildfire during the rebuilding effort, including post-fire insurance coverage. Communities and residents should know what impacts fires have on insurance rates and coverage, even for properties untouched by a local wildfire. The environmental impacts of fighting the fire and post-fire hazards can become a long-term issue for a community. Ash and firefighting chemicals can get into groundwater, wells and streams. Household chemicals, hazmat substances, and burnt debris from built and natural environments can pollute the burn zone and areas downstream for a long-term period. Burn scars in urban areas can bring additional environmental impacts to the larger ecosystems as has been observed along the beaches of Los Angeles and surrounding communities.

Figure 9 – Household garbage and burned debris wash up on Long Beach, California in February of 2025.

2.5.2 Land Managers, Logging and Recreation

The biggest impact of wildfire on the logging industry is the economic loss of timber from wildfire damage. Some forest stands are on long harvest rotations and can take many decades to return to their pre-fire timber value. Loss of timber stands from wildfire also impacts logging, milling, trucking and shipping jobs, and according to the USFS can have emotional impacts to foresters and ecologists who may have spent years preparing for a timber harvest, only to lose it to wildfire. Additionally outdoor education programs like those offered by the Glacier Peak Institute (GPI) in Darrington lose access to important areas that connect kids with local ecosystems and conservation jobs. Most importantly, the ecosystems are damaged, impacting biodiversity, air and water quality, and other sustenance activities such as hunting, fishing and foraging.

Wildfire smoke can impact logging crews and other outdoor conservation staff, and red flag warnings can shut down all operations. Industrial Fire Protection Levels are set by DNR during periods of higher fire risk in the summer and consist of four levels of action. Level 1 requires onsite fire equipment and fire watch service, Level 2 limits operational activities to the hours between 8pm and 1pm, Level 3 prohibits some activities altogether while maintaining the Level 2 curfew restrictions on all others, and Level 4 is a complete shutdown of outdoor industrial operations. While most logging crews adhere to red flag warnings and shutdowns, there have been accidents where logging equipment has sparked brush fire after operational hours. A hot downed wire from equipment caused a 60-acre fire on Frailey Mountain in Oso in 2016. Timber designated to fund schools that had already been felled was lost, as was the logging company's equipment.

Figure 10 – A DNR helicopter drops a bucket of water on the Hot Shot fire on Frailey Mountain in 2016.

Many partners in the forestry industry feel harvesting, thinning and prescribed burns face stigma in the Northwest. Educational campaigns about the importance of forest health, modern forest management practices, and restoring recreational access after improving forest roads for timber sales can help curb some of the uncertainty around harvesting and fuels treatment. Additional campaigns around the cultural

history and importance of prescribed burns and reassuring that they are not a primary method of fuel reduction on the west side of the Cascades may reduce the concern around the use.

The USFS owns and operates the Mount Baker-Snoqualmie National Forest which contains most of the forested lands on the east side of the County. These lands are open for various types of recreation including motorized and non-motorized as well as contained and back-country camping options. While USFS timber sales and cuts do not usually occur in WUI areas due to their remote locations, they do improve road conditions and clear slash within 200 ft of the roadways. The USFS is also updating the Northwest Forest Plan to prioritize fire resistance and resilience to protect forests and communities, promote economic opportunities for sustainable timber and workforce growth and strengthen the foundation of forest stewardship with modern strategies. (US Forest Service, 2025) Glacier Peak Institute is implementing some of these opportunities on a local level by working with youth and adult crews in a timber presale job program, and educating youth on the connection between conservation, forest health and the timber industry.

Private forest owners take different approaches to allowing public access to their lands. The Pilchuck Tree Farm, for example, manages recreation through a recreation association and does not charge to use the trails, but does ban camping, campfires and e-bikes for fire safety. They keep their roads maintained and most gates open for recreation. These could potentially be used by neighboring properties as alternate evacuation routes, or access for fire crews during a wildfire emergency. Some small fires have occurred for various human-caused reasons on private forest land including the Pilchuck Tree Farm.

Snohomish County Parks manages large areas of forestland throughout the county that provide both passive and active recreation including campgrounds. Many of these were once logged, and replanted at different densities, species mix and with various methods including aerial seeding. As a result, there are locations where the impacts from disease or windstorms could create fuel conditions for fires to spread where fuels have built up on the ground. Within the surrounding communities there are growing concerns about wildfire risks, but some community members remain resistant to timber harvesting and fuel treatments. DNR is facing legal opposition to over half of its Washington Board of Resources 2024 approved timber sales and the USFS is receiving comments in opposition of timber sales and fuels treatment in what are being categorized as “legacy forests” by forest preservation groups. (Lucia, 2024) Collaboration with the community is necessary to identify beneficial ways to reduce fuel loads. One successful example of such collaboration is the Healthy Forests Project, which works with community volunteers to remove invasive species from County forestlands to create a healthy understory (Snohomish County DCNR, 2025).

Figure 11 – Storm damage in a dense stand and white pine rust at Paradise Valley Conservation Area (May 2024)

DNR and USFS also allow recreation on their lands. After a fire burns through a wilderness area, USFS crews perform safety work in burn scar areas including soil stabilization and removing hazard trees. Sometimes the agency needs to close roads to trailheads to do that work which can be unpopular to locals and tourists. Loss of access to trails and forest roads can impact foothill communities like Darrington, Arlington, Gold Bar and Index that have diversified their economies with tourism. Wildfire smoke can also reduce the number of visitors to those communities and limit outdoor activities.

The land managers and conservation groups participating in the Snohomish County CWPP planning effort all agreed that while general fuels treatment on the west side of the Cascades near WUI communities is beneficial, it is not going to save structures or infrastructure from wildfires. Rather, implementing focused defensible space and home hardening techniques is the best way to make homes and properties more resilient to wildfires. DNR and the Snohomish Conservation District (SCD) provide property owner assistance for home hardening and defensible space. DNR uses Firewise and Wildfire Ready Neighbors programs to teach communities how to harden their homes. SCD and Glacier Peak Institute provide a chipping program, and SCD also provides site visits for home and forest health assessments. Both organizations are trying to shift away from grant funded models to a more sustainable funding solution.

Public and private land managers agree that post-storm and post-fire salvage sales would be beneficial to reduce fuels on the ground. The USFS has emergency authority to create salvage sales but has found that there is a negative perception towards salvage sales, as some people may see land managers as benefitting from the wildfire or using the wildfire to log. If the USFS waits for their emergency authority to end post wildfire response, then salvage sales in the burned areas must go through additional environmental

studies before being authorized. Some land managers would like to see the revenue produced from salvage sales go towards wildfire response readiness projects and equipment.

2.5.4 Utilities and Corridors

Snohomish County Public Utility District 1 (SnoPUD) provides power countywide to 377,000 customers and water to 23,500 customers in portions of the county. It has five generation facilities located across the county. Puget Sound Energy (PSE) provides natural gas to 140,000 customers in North Arlington, Gold Bar, Edmonds and along the Snohomish-King County line. While they do not provide power to any customers in Snohomish County, PSE has power transmission lines that traverse the County. Seattle City Light and Bonneville Power (BPA) also have transmission lines running through the county. The City of Everett operates a watershed and water filtration plant in Sultan and maintains two long transmission line corridors with four watermains that run to the City of Everett. The water from this watershed serves 75% of Snohomish County residents through the City of Everett and other water districts.

Washington State Department of Transportation (WSDOT), Snohomish County Public Works, and local jurisdiction public works departments maintain roadway right-of-way corridors throughout the County. County Public Works is responsible for approximately 1,600 miles of county roads, more than 200 bridges, and estimates they serve up to 600,000 road users per year. These agencies are also responsible for updating projects in their corresponding Capital Improvement and Transportation Improvement Plans (CIP and TIP) annually. WSDOT maintains the highways traversing the foothill and mountain valleys, including Highway 2, and the County works with the USFS to maintain the Mountain Loop Highway corridor.

Figure 12 – Transmission lines burned by the Cold Creek Fire in Okanogan County in 2020

While none of the utilities serving Snohomish County saw any infrastructure impacts from the Bolt Creek Fire in 2022, both SnoPUD and PSE shut down power transmission in strategic areas for fire crew response safety. The BPA transmission corridor was also within the Bolt Creek burn area, but infrastructure was not harmed. Potential fire risks for these utilities include damaged transmission lines, poles, transformers, substations. For water utilities, wildfires can affect more than just infrastructure. Both fire debris and fire retardants can impact water quality in reservoirs, as can debris flows post-fire. Long term power outages due to wildfire damage or response could trigger widespread impacts to customers including lost food, wi-fi and communication outages, cell tower outages, cooling and heating issues and medical device charging.

Roadways closed for fire response will remain so until an Incident Commander determines they can be reopened. Roadway closures can impact evacuation routes during a wildfire, as seen in Lahaina, Hawaii in 2023. They can also increase the response time for emergency services to provide medical assistance or impair public transit's ability to support evacuation efforts. Long-term road closures can delay power restoration efforts, debris removal and residents' overall ability for re-entry. Residents located on the isolated side of long-term road closures face difficulties getting to work, obtaining food and supplies, and receiving medical care with their local providers. Transit services can also be reduced or stopped during long term road closures as the agency providing the service may not be able to drive extended miles to go around long detours.

Barriers to reopening roadways can include debris removal, damage to the roadway surface, safety issues within the rights-of-way, and funding to repair damaged infrastructure. Fire can impact the integrity of road pavement and damage bridges, and large trees and boulders can tumble down fire exposed slopes and damage roadways. During the Bolt Creek Fire, Highway 2 was closed for fire response and several more times in the following weeks for fire activity and for motorist safety after the fire. These closures reduced tourism traffic and commerce through this corridor, which is important to mountain recreation and travel between western and central Washington cities.

Utilities and roadway maintenance divisions can take steps to mitigate against fire ignition and spread. Keeping vegetation maintained within rights-of-way and utility corridors is important to reduce ignition sources. Hot vehicles, sparks from trailer chains, and downed power lines can spark fires. Discouraging planting and considering ways to remove plants that contain high amounts of flammable oils, like Scotch broom and arborvitae, could help reduce the spread of brush fires within those corridors. Since private roadways are not maintained by State or County road divisions, homeowners and condo associations should consider including right-of-way maintenance in annual fees, especially if their ingress and egress is a one-way-in, one-way-out roadway.

Figure 13 – A SnoPUD tree trimming contractor works on the Highway 530 corridor near Oso

In 2023, House Bill 1032 was passed into law and requires all public and private electrical utilities adopt a wildfire mitigation plan. Most electrical utilities, including SnoPUD and PSE have developed Public Safety Power Shutoff plans (PSPS) as a way to reduce the risk of wildfire ignition during red flag warnings, and other periods of weather with higher fire risks. These are planned outages that will only be implemented during high fire weather risks. The SnoPUD PSPS outages will not impact widespread areas, but will be targeted in areas identified with high risk for ignition. The duration of these planned outages can vary, and power will be restored when SnoPUD crews have inspected and repaired any damaged equipment or lines, or when it is safe to do so according to the weather factors (SnoPUD, 2025).

The City of Everett, SnoPUD and PSE are all investing in improving infrastructure to be more resilient to wildfires including installing smart meters and increasing the capacity and automation of the power grid. Staff from PSE and SnoPUD also attend utility working groups that focus on wildfire risks and risk reduction strategies.

2.5.5 Community Values at Risk

A wildfire in the Darrington area could significantly impact the Sauk-Suiattle Tribe and the town of Darrington. Past wildfires have threatened the tribal cemetery and other unmarked culturally important sites. While no wildfires have impacted the Stillaguamish or Tulalip Tribes' critical facilities or reservations, both have important cultural and historic locations throughout the county forestlands and foothills.

Acknowledging cultural and historic character of towns is also important when rebuilding post fire. Historic lot sizes and zoning should be taken under consideration when rebuilding as requiring larger lot sizes or setbacks could significantly impact the ability for a small town without a sewer system like Darrington or Index to rebuild. Losing a neighborhood, business district, historic place or a section of town would be economically and emotionally distressing to a local community. Across the county, there are numerous historic sites in or abutting forested areas. Downtown Historic Snohomish sits on the edge of open fields

and forestland, a historic lighthouse sits at the bottom of a forested gulch in Mukilteo, and USFS buildings and structures over 100 years old sit within forestlands above and within the Skykomish, Stillaguamish and Sauk river valleys.

The environmental and emotional impacts from a wildfire can be devastating. Communities in the foothills and mountain valleys depend on the resources for jobs and the landscape for tourism. Losing a community and becoming isolated by long term road closures can also cause negative social impacts including the closure of businesses, long term relocation or loss of residents, and the inability to obtain basic goods and services. Tourism in some of these locations may take decades to return depending on the size and location of the wildfire.

Figure 14 – Tour boats remain unused and moored mid-afternoon in Lahaina post-fire, October 2024

2.6 Post-Fire Risks

There are several risks to consider after a wildfire occurs in or near a community. After the Bolt Creek Fire, a team of USGS geologists formed a Burned Area Emergency Response (BAER) team to assess the burn scar area for topography, vegetation and soils, and included their findings in a Wildfire-Associated Landslide Emergency Alert Team report. According to the report for the Bolt Creek Fire, nine areas were identified as drainages where debris flows or flash floods could impact property or infrastructure. Of those nine drainage areas, five were identified as high risk, where debris flows or flash floods could impact trails, campgrounds, US Highway 2 or BPA transmission lines. (Mickelson & Allen, 2022) BAER teams are sponsored at the Federal level and work on Federal Lands like the Mount Baker-Snoqualmie National Forest, where most of the Bolt Creek Fire occurred. There is currently no equivalent team or sponsorship at the state or local level to assess a burn scar area on state, local or private properties.

Figure 15 – A debris flow damages a structure and property in 2014 after the Carlton Complex Fires,

Source: Brent Bower, National Weather Service Seattle

It is important to monitor burn scar areas and drainages where post-fire debris flows and flash floods could occur, especially where they can impact recreation areas, properties or infrastructure. Notifying the public and industries when there are higher risks for these events, such as during periods of high precipitation is also vital. An additional post-fire risk to consider within the slopes of the Cascades is increased avalanche risk in burn scar areas. Historians believe that previous wildfires sparked by trains may have added to the risk of the deadly Wellington Avalanche that occurred in 1910, just south of the Snohomish County boundary line. (Lange, 2003) Public land managers should work with local tribes and consider the historic use of lands and fire management by Indigenous peoples when developing reforestation plans both post-timber harvest and post-fire. If an area was historically burned to maintain a meadow for wild harvesting or hunting, the land manager may want to enter a memorandum of understanding or other contract to maintain that area for tribal use and maintenance. Additionally, recreation groups should also be consulted after a harvest or fire to develop a restoration and trail plan that considers historic use of the land. These groups could also be contracted to restore the trail systems and for replanting.

Figure 16 – Post-fire conditions within the Bolt Creek Fire perimeter

2.7 Preparedness Survey results

To better understand the needs, concerns, and preparedness levels of Snohomish County residents relating to wildfire, Snohomish County DEM conducted a countywide public survey from July 26 through November 16, 2024. The survey featured questions to assess household and structural preparedness, perceived wildfire risk, community and cultural values, and perspective about the environmental impacts from wildfire mitigation projects such as forest thinning and fuels reduction.

Created through ArcGIS Survey123, the survey provided an online platform to geographically locate respondents and assess data on a community-wide level. Additionally, the build-out of the survey through this tool provided information to local fire protection agencies about the communities they serve. With support from CWPP partners, the survey was widely publicized through community events, social media, newsletters, flyers, and local media outlets. The survey received responses from 1,110 participants, reflecting a strong interest in wildfire preparedness within Snohomish County.

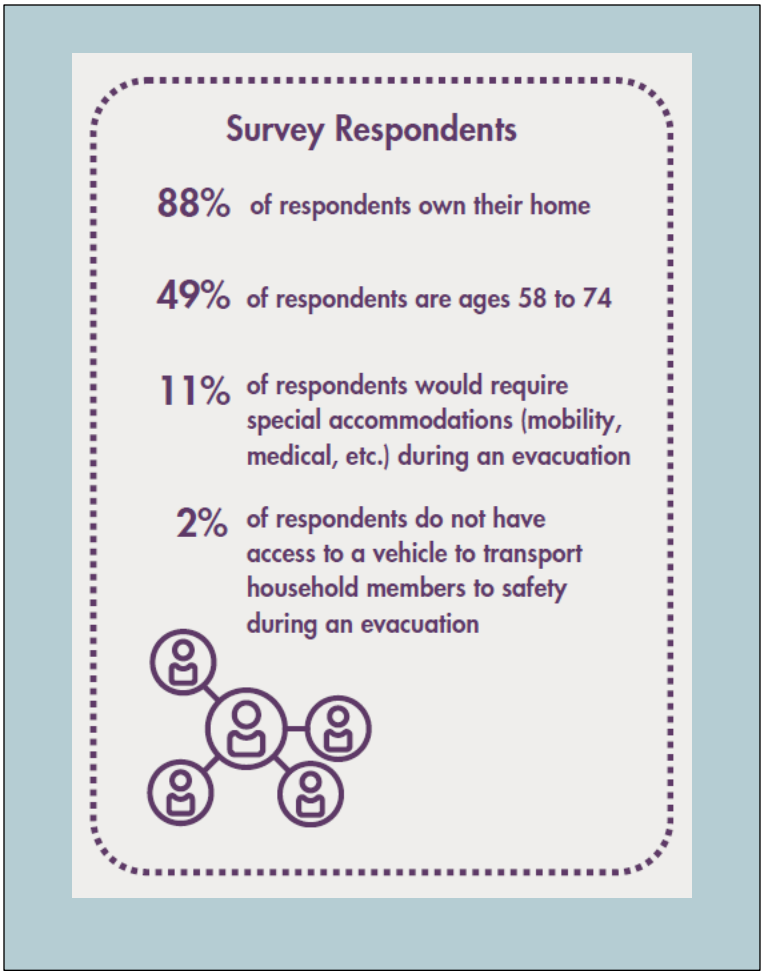


Figure 17 – Demographics of Snohomish County CWPP Public Survey

Survey results confirm residents have strong interest in bolstering community wildfire resiliency. While the survey was anonymous by design, 60% of respondents opted to share their contact information to stay informed of future wildfire outreach and education events. When it comes to wildfire preparedness and mitigation, 76% of survey respondents reported that individuals are responsible, 71% attributed the responsibility to local fire protection agencies, and 69% to local government. Key findings also indicate an important opportunity to develop and deliver public education and build awareness as 74% of respondents are “not all familiar” or “somewhat familiar” with home hardening measures.

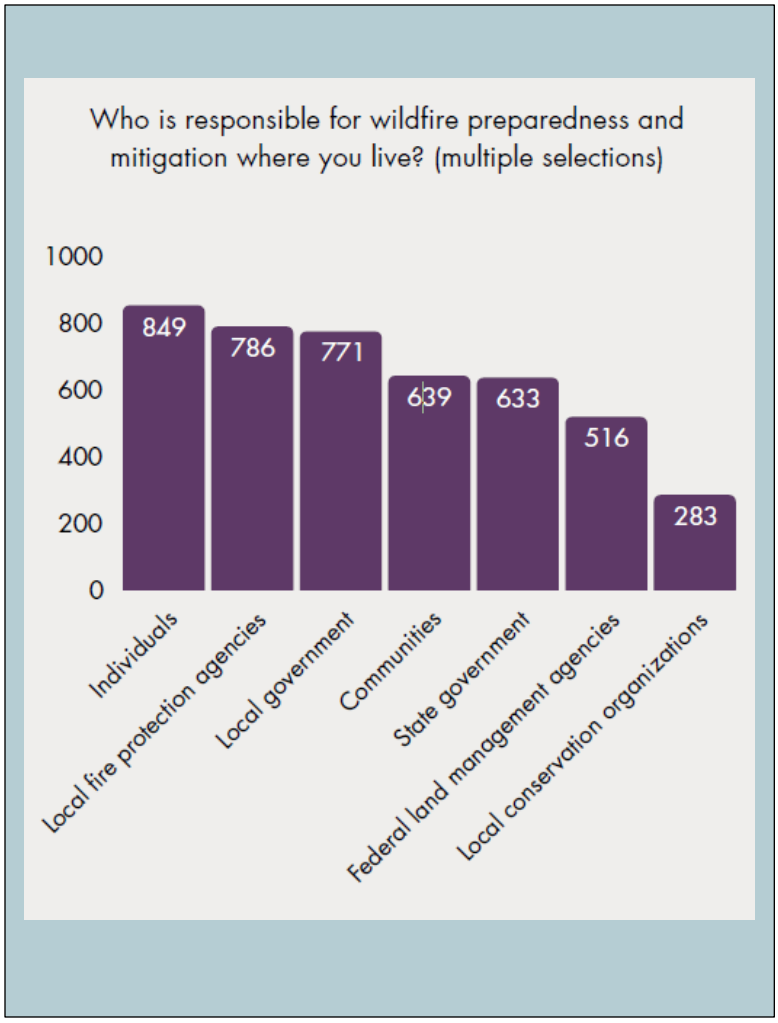


Figure 18 – Preparedness and mitigation survey results, Source Snohomish County DEM Public Survey

A big part of making a community more resilient to wildfires is for individual home and property owners to implement the steps needed to create defensible space and harden homes. Respondents were asked about barriers to implementing defensible space measures in and around their homes and properties. They were also asked what kind of options or incentives would encourage them to begin.

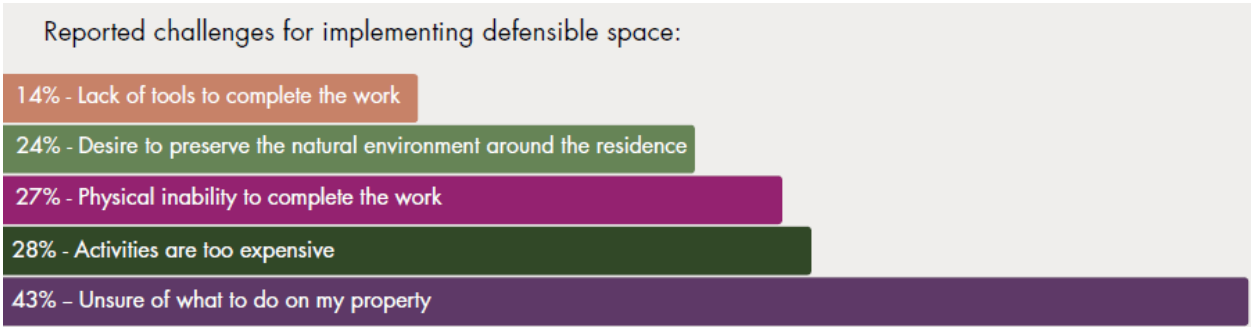


Figure 19 – Challenges to implementing defensible space, Source: Snohomish County DEM Public Survey

According to the survey, 74% of respondents were not at all or only somewhat familiar with how to harden their homes, and 60% were not at all or only somewhat familiar with where to receive updates and information about local wildfire events and evacuations. Local governments and agencies should consider expanding and prioritizing public education and outreach for fire resilience and readiness. Community partners such as the Snohomish Conservation District or WA Department of Natural Resources have site visitation and forest health programs that can further educate community members.

Figure 20 – Incentives to implementing defensible space, Source: Snohomish County DEM Public Survey

Wildfire awareness does seem to be increasing in Snohomish County. Almost 60% of the survey respondents said they are more concerned about the safety of their family, home and assets from a wildfire than they were five years ago. In addition to the safety of human lives and protecting homes, over 80% were concerned about the protection and quality of drinking water supplies during a fire response. Support for wildfire mitigation strategies also seems to be increasing. Fuel reduction projects in the working forests are also seen as beneficial to forest health by most of the people surveyed.

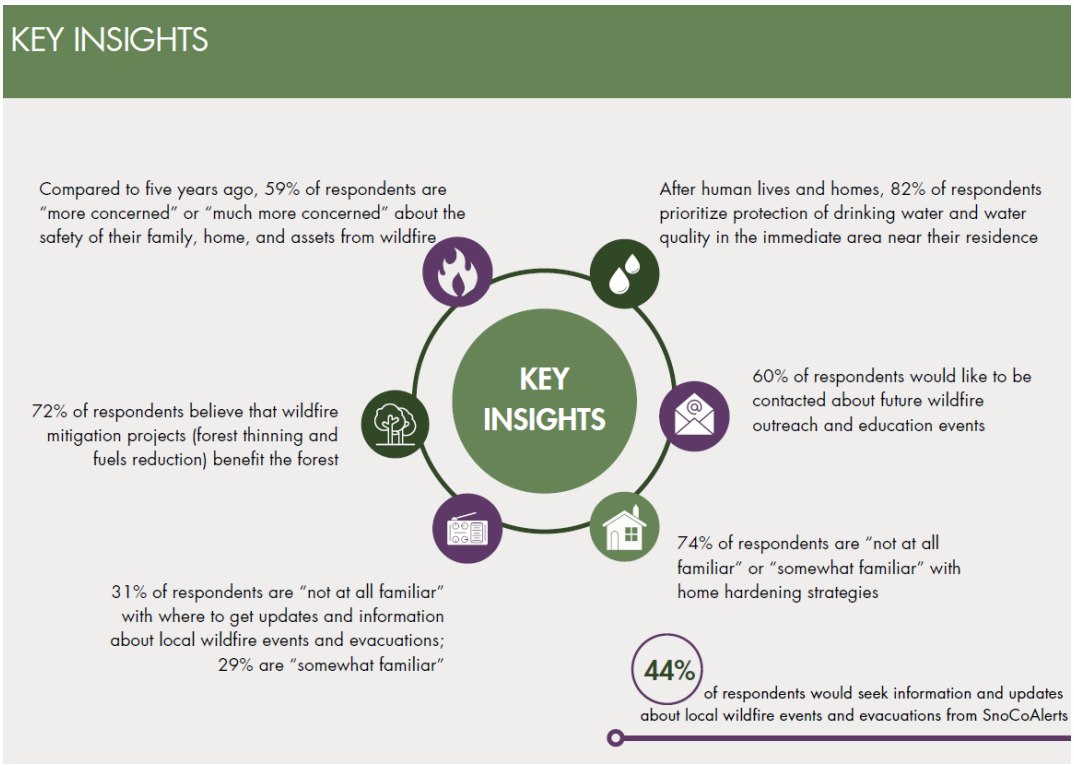


Figure 21 – Key insights from the Snohomish County DEM Public Survey

2.8 Fire Agency Response and Firefighting Capabilities

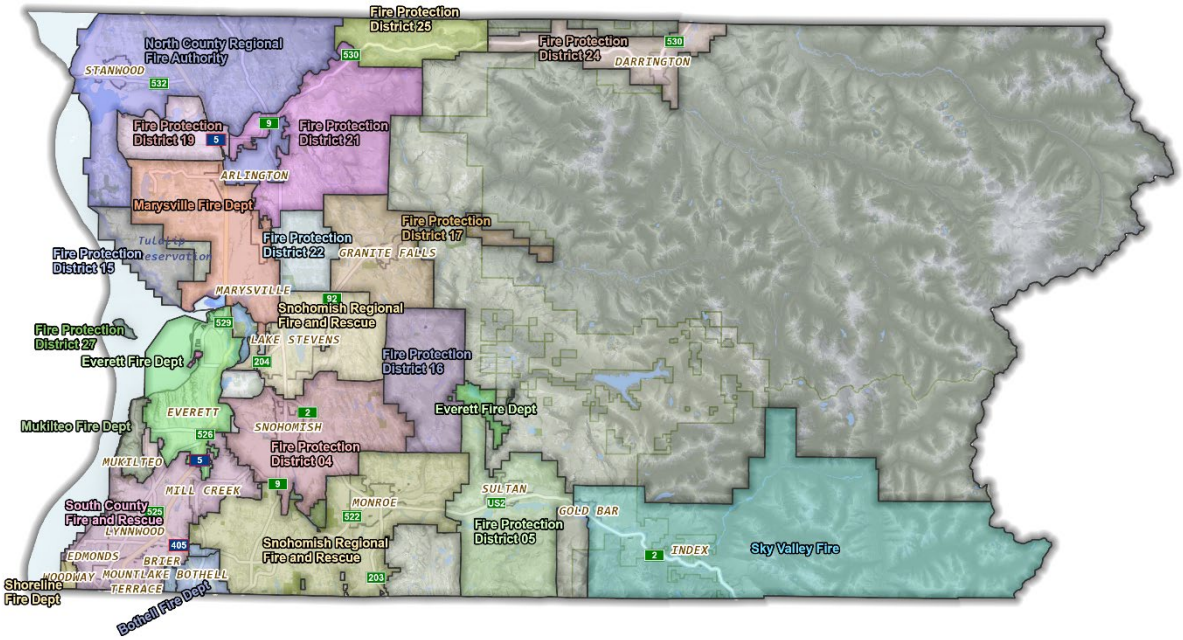
Both vegetation and structural fires are handled by the local fire agency, with Automatic Aid agreements set by the local agencies to trigger assistance from nearby agencies through dispatch when local resources are exceeded. Fire response within the county is coordinated through the County and Regional Coordinators under Fire Defense Agreements which assist local fire agencies with regional and state support once local and county resources are exceeded. These Fire Defense Agreements allow state DNR resources to respond to local brush and vegetation fires, and for local fire agencies to respond to fires on State and Federal lands. This is important, since State and Federal crews are staged regionally and may not be nearby to respond quickly to a vegetation fire on public lands.

If the wildfire exceeds the regional capabilities, then State Mobilization can be requested by the Regional Coordinator and approved by the Chief of the Washington State Patrol. This allows resources from outside the region and other states to deploy and assist the wildfire response. Wildfires require specialized equipment and crews; traditional structure fire resources or municipal water systems are inadequate to the task. Crews must have red card certification to fight a wildland fire, which requires training beyond the basic level. Fire trucks, especially water tenders must be equipped with pumps in addition to their water tanks, as hydrant hook ups are not mobile enough for fast moving wildfires, and most rural locations do not have municipal hydrants.

Figure 22 – A wildland firefighter battles the Bolt Creek Fire in 2022

The Fire Service within Snohomish County consists of 18 fire agencies, as well as State and Federal resources. State and Federal resources may not be staged within Snohomish County depending on priorities and needs of each agency. Washington State DNR holds forest fire protection responsibility on all non-Federal forestlands in the state per RCW 76.04.015. This often results in jurisdictional overlap with

county fire districts, who partner with and can contract with DNR through cooperative agreements under RCW 76.04.135.



Map 8 – Fire District map of Snohomish County

Snohomish County used the inventory system MAPARS to download a 2019 copy of local fire agency deployable assets and requested that agencies update their inventories for the following capability assessment:

Resource	Total County Deployable Assets*
Air Attack Coordinator	2
Air Tankers	0
Bulldozers	0
Helicopters	0
Mobile Communication Units	2
Mobile Kitchens	0
Type 1 Engines	20
Type 2 Engines	0
Type 3 Engines	6
Type 4 Engines	0
Type 5 Engines	4

* Data is accurate as of August 1, 2025 with 50% of Fire Agencies updating inventories. This countywide inventory may be updated in future versions.

Type 6 Engines	5
Water Tenders (Tactical)	7
Type 1 Hand Crews	0
Type 3 Hand Crews	0
Type 2 Command Post	1
Type 3 Command Post	1

Table 13 – Fire Agency Wildland Fire Capability Survey

2.9 Evacuation, Sheltering and Reentry

During a wildfire event, residents may need to evacuate to safety. Prior to an evacuation, residents should plan, prepare, and practice leaving their home, workplace, or school when necessary. Residents should opt-in to local emergency notifications, determine primary and alternate evacuation routes, and coordinate practicing evacuations with their household and larger community. Socially vulnerable residents are disproportionately impacted by wildfire and evacuations, and identifying and planning with residents who may need additional assistance, such as elderly or those with disabilities, will help ensure the safety of the entire community.

2.9.1 Alert and Warning

Snohomish County uses a Smart911 system called SnoCoAlerts for its early alert and warning system. During a wildfire response, people within evacuation zones would receive alerts through this system, and those who choose to register with SnoCoAlerts can also be notified of emergency alerts impacting their community even if they are not present in that location. Registering for this system can also help provide critical information such as emergency contacts, medical conditions and mobility assistance to first responders during an emergency response. The Snohomish County Public Safety Hub will display any active evacuation alerts, so residents can always check there for current information during an evolving incident.

Evacuation alerts in Snohomish County follow the Level 1/**Ready,** Level 2/**Set,** Level 3/**Go** model. This model will be used whether the evacuation is due to wildfire, flooding, hazardous materials or any other threats when it is critical to get away from danger fast. Here's an excerpt depicting how they work:

- Level 1/READY:
    - Get ready to leave; it may become necessary. Also known as Level 1, this alert occurs when there is no immediate danger to people or to property, but a threat may be headed that way. This is the time for people to scout evacuation routes, to firm up their personal plans for leaving the area, to gather up necessities, to check on neighbors who may need help and to take steps to keep pets and livestock safe.
    - Key steps:
        - Sign up for SnoCoAlerts if you haven't already.
        - Monitor news, weather and other reports.
- Level 2/SET:
    - Get set to leave with little notice. Also known as Level 2, this alert occurs when there is significant risk to an area and a high probability there will be need to evacuate. People should prepare to go at any time. First responders may begin making door-to-door

notifications. Those who may take longer, including older people and those living with disabilities, should leave now. It's also time to move livestock.

- Key steps:
  - Make sure you are signed up for SnoCoAlerts and that your information is up to date.
  - Keep your phone on and charged.
  - Pack up important papers, pets and prescriptions.
  - Assemble your emergency kit, including portable radio and flashlight.

- Level 3/GO!
  - Also known as Level 3. Evacuate. There is immediate danger. People need to load up their families and pets and leave using pre-designated routes.
  - Key steps:
    - Leave now!
    - Follow emergency instructions from any first responders you encounter.
    - Drive with your headlights on.
    - Once in a safe location, check in with family and friends to let them know your location.

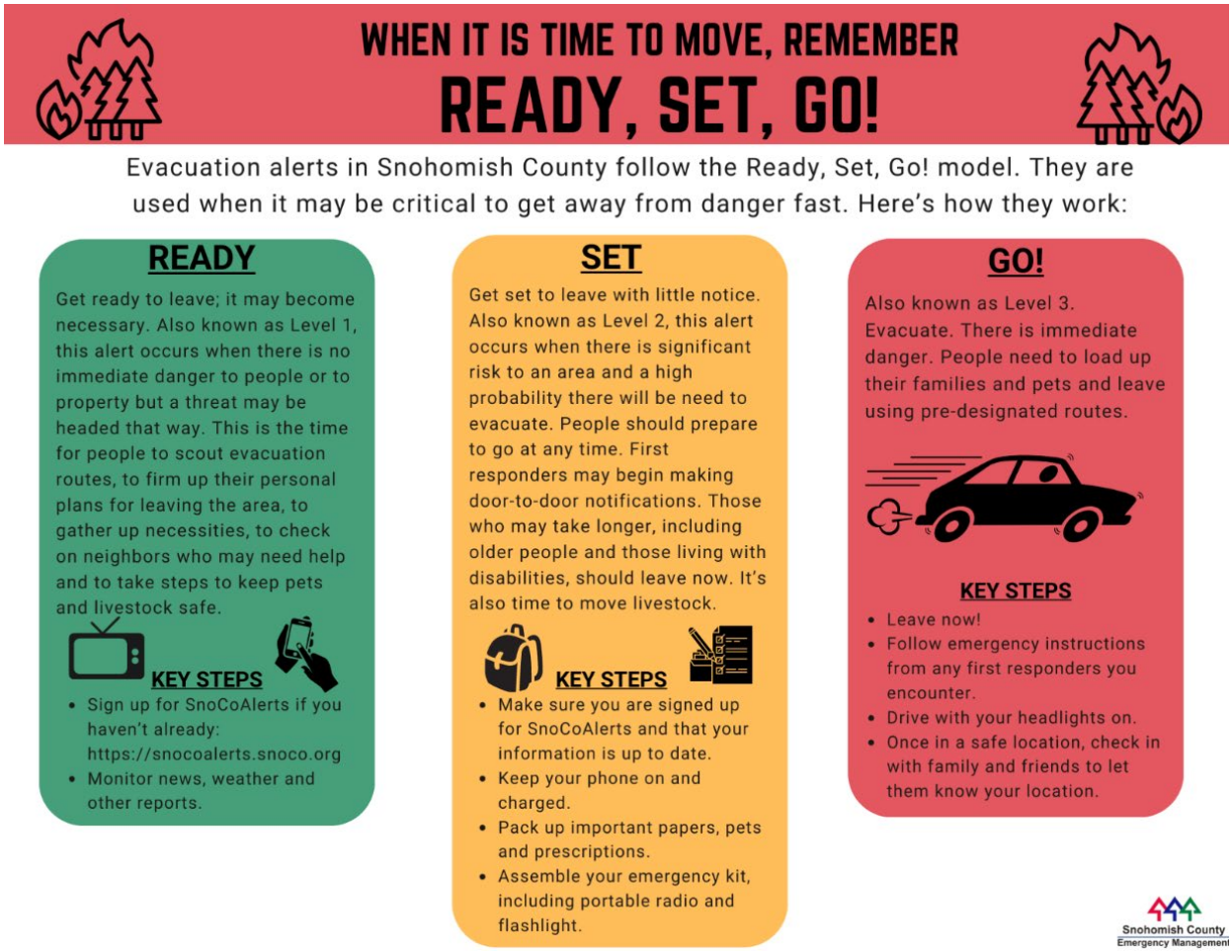


Figure 23 – Ready, Set, Go public outreach material

Most respondents to the Preparedness Survey expect to receive updates and information about local wildfires and evacuations from the public alerts and warning systems. The County promotes SnoCoAlerts at outreach events throughout the year, on social media and on DEM's website. SnoCoAlerts outreach commercials are also recorded and played on local radio station KXA, FM 101.1.

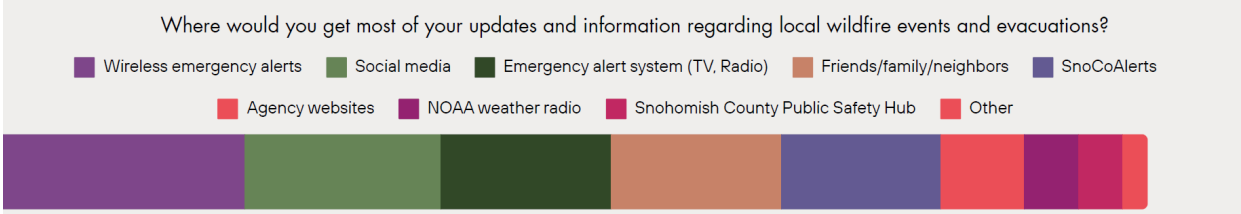


Figure 24 – Expected sources of evacuation information, Source: Snohomish County DEM Public Survey

2.9.2 Evacuation and Route Identification

Detailed evacuation operations and procedures are captured in the Snohomish County Comprehensive Emergency Management Plan Evacuation and Shelter in Place annex. When possible, the Incident Commander or Unified Command (IC/UC) of a wildfire response will organize evacuations by zones to prioritize the movement of the most at-risk areas. Zones also aid in decision-making and resource management by helping responders estimate clearance times, shelter demand, transportation requirements, participation rates, lead and lag times, and additional community support requirements for people with access or functional needs (AFN). Zones should be based on recognizable landmarks or boundaries, such as known neighborhoods and major roads, so that they are clearly recognized by residents and visitors to reduce confusion during an evacuation. Zone information will be communicated to the public during emergencies via the public alert and warning system (SnoCoAlerts), internet, phone service, and broadcast radio.

The IC/UC will communicate evacuation zones and routes to Sno911 for public alert and warning. Sno911 will notify the Snohomish County Emergency Operations Center (SCEOC) so it can coordinate with impacted jurisdictions and provide alerting support if needed. The SCEOC will establish a Joint Information Center (JIC) and once available, the JIC will post a map of the evacuation zones to the Snohomish County Public Safety Hub and provide evacuation information to the public via social media and traditional media sources. On-scene law enforcement and fire agencies will assist the IC/UC with local public alerting such as door-to-door notifications or bullhorn announcements. The on-scene Incident Command Post (ICP) is responsible for sharing the evacuation boundaries and status with the SCEOC and other response partners. WSDOT and Public Works will support fire response and evacuation efforts with traffic control, debris removal along roadways and rights-of-way, and monitoring traffic flow and conditions along evacuation routes. They will also assist the ICP with road closures to active fire zones.

WSDOT is responsible for traffic management along state highways, including road closure and contraflow. WSDOT and Washington State Patrol will consult with Snohomish County Public Works, Community Transit, the SCEOC, IC/UC, Snohomish County Sheriff's Office and local law enforcement agencies, local fire agencies, and others as necessary when considering road closures and contraflow along States routes through Snohomish County. For other roads, local and county Public Works along with the Snohomish County Sheriff's Office and local law enforcement agencies, are responsible for traffic management,

including road closure and contraflow. Washington State Patrol will assist as requested. For any county roads, contraflow should be determined between Snohomish County Public Works, Snohomish County Sheriff's Office, local fire agencies, the SCEOC, and others as necessary.

Representatives from Snohomish County Human Services in the SCEOC will work with the Red Cross and other community organizations to advise on shelter locations and operations. Once designated, emergency shelter locations will also be posted on the Public Safety Hub. A Point-to-Point evacuation strategy will be the default model for the county, where evacuees will go directly to a shelter if they have no other safe place to go. Evacuees are not required to go to shelters, but should be encouraged to check-in as safe during shelter entry or at a check-in point if available before heading to their destination. People can also check-in as safe on various social media sites to notify their friends and family of their status. Representatives from fire agencies and Public Health will advise on triage points and operations at designated locations or shelters. Fire support personnel in the SCEOC will also help establish routes for responders and routes to hospitals and other medical facilities.

Figure 25 – A reader board displays fire information for evacuees and responders at the Evergreen State Fair Park during the Bolt Creek Fire in 2022

People within Level 3/Go evacuation zones should be prepared to use their own transportation to evacuate from a wildfire. Evacuation routes and road closures will be communicated to the public, but all transportation options should be considered when evacuating during a fire. Communities and neighborhoods should consider local evacuation plans that include mapping and planning for vulnerable residents or visitors who may not have access to a vehicle, or who have mobility or medical needs. The SCEOC will work with public transit agencies to support fire agencies in evacuation efforts of individuals without vehicles or with other access and functional needs. Outreach efforts should encourage neighbors to assist neighbors with evacuation needs whenever possible.

During a fast-moving wildfire, people should consider their safety if their evacuation route is blocked by an accident or other reason. If there is a need to abandon a vehicle to run to safety, drivers should pull the vehicle off the road as best as possible to leave a route open to responders after the fire has moved through. If a route from a neighborhood or home is blocked by fire activity or road damage, other methods of transportation such as off-road vehicles (ORVs) or even bicycles should be considered. If a one way in, one way out route for an evacuating community is blocked, households and neighborhoods should consider refuges of last resort, or safe places to gather until it is safe to leave or rescue arrives such as large rock areas, a riverbed, large non-vegetated open spaces or other natural fire break features.

If part of a personal or community evacuation plan includes using forest roads or private roadways, the routes should be driven regularly to ensure there are no locked gates or infrastructure damage that would impair or prevent evacuation. In the need of an alternative evacuation route for a community, fire agencies will likely gain access through any gates, but people should not expect them to be open during a fast-moving fire or available to the public for evacuation use unless otherwise specified. Utilities with existing road closures for system restoration repairs should re-prioritize evacuation needs and re-open closed roadways if possible. Some alternative evacuation routes were blocked by power restoration efforts during the Lahaina fire evacuations in 2023 (Associated Press, 2025). It is important for law enforcement, fire agencies and utilities to coordinate ICP and/or SCEOC level to re-prioritize crews and shut off power to areas where roads may be closed for downed lines in the right-of-way to prevent traffic bottlenecks.

People with pets should include them in their personal evacuation plans. Preparing pets for evacuation should include having a carrier, a leash, pet food and medications accessible and ready to pack. Emergency shelters in Washington State are required to accept evacuees with pets (Washington State Legislature, 2025). Representatives from the Department of Conservation and Natural Resources (DCNR) will coordinate with Snohomish County Animal Services and other support partners in the SCEOC to advise and assist with pet procedures at shelters in addition to establishing and operating livestock shelter locations.

Livestock owners should also consider their animals in evacuation plans. Livestock shelters will be designated by Snohomish County and posted to the Public Safety Hub. If possible, livestock owners should practice loading animals into trailers and consider methods of last resort for fast moving wildfires such as cutting fences and painting identification marks on animals if owners do not have a trailer or enough space in a trailer for all of the animals.

Additional evacuation considerations include:

Time of Year

Populations in the mountains and along the coast vary according to seasonal recreational activities. Evacuation guidance should be clear to populations who are not familiar with the area. Additionally, traditional mass communications methods might not reach hikers, campers, skiers, and others in isolated areas.

Time of Day

Evacuations which occur during the day and during the school year should account for the additional movement, communications needs, and reunification of school-aged children and faculty. When

evacuation zones include schools that are in session, the JIS should coordinate public messaging with the affected school district(s). No-notice evacuations that occur during the workday may result in an increased number of people without personal transport, whether because a household's only vehicles or only drivers are at work. People may attempt to head into the evacuation zone to get their family and pets out.

Shadow Evacuees

An additional consideration is potential "shadow evacuees", also referred to as spontaneous evacuees. These are evacuees who will evacuate regardless of directives by public officials due to the perceived risk of danger.

2.9.3 Reunification and Reentry

In the event of a large evacuation, the County may may establish a voluntary check-in procedure that enables evacuees to mark themselves as "safe" after they have evacuated from harm's way. If the SCEOC or a supporting agency is requested to assist in evacuation efforts for an institution such as a school or nursing home, the agency responsible for the evacuation assistance may document and track evacuees from their evacuation point to their final destinations. A reunification center will be established by the responsible agency for schools or other institutional evacuations.

The County uses a phased approach to re-entry, summarized in the following table. This approach allows only emergency response personnel access to impacted areas until hazardous conditions have been mitigated or abated for the public. Then, the coordinated transportation of evacuees back into the community will begin once the IC/UC determines that the area is sufficiently stable. Depending on the site and safety conditions, some residents may return before others, or be allowed only temporary access to inspect their homes. In instances where evacuees are unable to return to their communities, this phase involves the relocation of individuals to new host areas. Evacuation facilities may be used as venues to share re-entry or re-location information in accordance with established mass care plans.

Status to Public	Re-entry Phases
RED-CLOSED	• Phase 1: Re-Entry Task Forces comprised of state and local response agencies, as well as certain key utility providers, can enter the impacted area and contain life-threatening hazards.
RED – CLOSED	• Phase 2: Search and Rescue, emergency medical services, fire suppression, hazardous material control, preliminary damage assessment, essential relief staff, and immediate utility restoration to critical medical facilities.
RED – CLOSED	• Phase 3: Public and private sector to support the reestablishment of critical infrastructure systems, including petroleum and food distributors, non-emergency medical facilities (such as dialysis centers), pharmaceutical providers, members of the media, medical facility support staff, and local government essential workers.
GREEN - OPEN	• Phase 4: Allows the public to access all or portions of the impacted area, as determined by local officials. Access may be restricted to daylight hours as the recovery process continues.

Table 14 – Re-Entry Phases, Source: Snohomish County Evacuation and Shelter-in-place annex

The IC/UC will guide the transition from Phase 1 to Phase 2 and from Phase 2 to Phase 3. The transition from Phase 3 to Phase 4 may be guided by the IC/UC, or by the executive head of the local government. When determining whether to begin the re-entry phase, at a minimum, the following conditions should be met:

- The stability of critical infrastructure functions,
- Minimal health and safety threats,
- Sufficient systems and services to support viable, resilient communities,
- Initial response processes, such as damage assessment and debris clearing are far enough along that they won't interfere with the return of residents,
- Restoration of supply chains to the impacted area, and
- Provision of fatality management services in the impacted areas.

When planning for re-entry, the SCEOC will support the decision makers in coordinating with partners, including:

- Law Enforcement, to ensure safety and security of those re-entering,
- The Joint Information Center, to ensure that re-entry instructions are appropriately communicated,
- The local government,
- Partner agencies in charge of mass care, animals in disasters, debris clearance, and disaster recovery in accordance with Snohomish County's Comprehensive Emergency Management Plan, and
- Whole-of-community partners.

The SCEOC will work closely with host communities and the State to coordinate re-entry timelines. Coordination should also occur with whole community partners, including partners supporting AFN populations who may require additional transportation assistance, housing inspections, and re-entry support to ensure their health and safety. The State's Business Re-Entry Program can be referenced for information regarding permits for critical infrastructure owners and operators and businesses to gain access to impacted infrastructure. Representatives from DCNR and Animal Services at the SCEOC will coordinate with non-government organizations and other volunteer organizations to ensure animal return efforts are timed to align with owner re-entry and animal safety.

2.10 Recovery

Impacts that may occur after a wildfire include difficulties rebuilding structures or infrastructure within the community affected by the fire. While federal Individual Assistance and Public Assistance program funding may be available after a wildfire disaster is declared, bottlenecks to rebuilding may include lack of

professionals available for environmental and geotechnical surveys, lengthy permitting review times, and old land use and development codes that may not reduce the community's risk to a future wildfire.

Recent fires in Maldin, WA, Paradise, CA, Lahaina, HI and Pacific Palisades, CA have been devastating to those communities and clean-up and rebuilding have hit unintentional roadblocks. To help the post fire rebuilding effort, residential permits could be streamlined with master planning environmental and development permitting on a neighborhood or small community level. Homeowners could be encouraged to build back to current regulation setbacks and with fire resilient construction materials by providing fixed term tax incentives or rebates. Other roadblocks to residents returning include ineligible insurance claims for the damages, affordable insurance coverage for the rebuilt structure, neighbor disputes and even gentrification.

Figure 26 – A foundation lies in ruins after the Cold Creek Fire in Okanogan County in 2020.

Streamlining residential permitting allows municipalities to dedicate staff to both residential and business permitting. Having the municipality take on the burden of initial environmental checklists, clearing and grading permits, allows homeowners to focus their funds on rebuilding their residences, and could be an incentive for them to do so quickly. It is important to bring back jobs and visitors, but also have a place for residents and workers to live so that the full community can reenter, rebuild and revive. The main transportation route to the Town of Darrington was disrupted for six months after the SR 530 Landslide, and according to the Mayor of Darrington, many people who lost access to their jobs and did not have strong ties to the community left and have not returned.

Losing transportation routes, homes and businesses from a fire would have an even bigger impact to local communities, and even long-term residents may not return if it is not timely, affordable or feasible for them to do so. Larger municipalities may consider assisting rural communities with post fire permitting efforts since many smaller communities do not have the resources to take on such a large task.

Additionally, some communities may find difficulty acquiring affordable insurance after a fire has impacted a location, and current insurance policies may not cover the costs of rebuilding up to new code standards or insurance mitigation requirements.

3.0 Mitigation

Community Wildfire Protection Plan Mitigation Strategies have been identified by Snohomish County Department of Emergency Management planning partners as actions that can be taken to reduce the risks from wildfires. Planning Partners will work collaboratively over the next five years to identify community resilience building funding sources that can be used to implement the identified strategies. Mitigation Strategy progress will be evaluated annually by a Local Coordination Group (see Appendix A for more information).

3.1 Fuels Reduction and Management

Item #	Mitigation Strategy	Goal(s)	Planning Partners
FR-1	Support and find ways to expand funding for community chipping programs including equipment, staffing and working with local contractors to support small businesses. Provide training and funding for expanding chipper day capacity, locations, and assisting community members with barriers to participate (e.g. limited mobility). Provide community outreach highlighting the defensible space benefits of chipping and ways to participate.	1, 3	Snohomish Conservation District (SCD), Local Fire Agencies, Local Communities
FR-2	Support and continue to fund noxious weed management along rights-of-way and utility corridors, vegetation management and maintenance along evacuation routes in heavily wooded areas, and prioritize and find funding to clear overhead large trees and other hazards that could block critical egress routes like Highway 2.	1, 3, 4	Snohomish County Public Works (DPW), DCNR, Washington State Department Of Transportation (WSDOT), Local Community Public Works
FR-3	Continue to support and expand SnoPUD contracts for tree trimming projects	1	SnoPUD
FR-4	Prioritize fuels reduction and maintenance on county-owned park/land to use as model for replication and informing engaged communities. Consider a contract with Team Rubicon or other volunteer agencies to assist County crews with conducting fuels reduction on county properties, including: Centennial Trail corridor, Meadowdale Beach Park*, Lord Hill Park*, Paradise Valley Conservation Area (PVCA)*, Flowing Lake Park, Kayak Point Park*, and Robe Canyon Park (*Park is part of the Healthy Forest Program)	3	Snohomish County Department of Conservation and Recreation (DCNR), SCD

Item #	Mitigation Strategy	Goal(s)	Planning Partners
FR-5	Increase capacity and qualifications for prescribed burns by engaging with tribes and other stakeholders to evaluate prescribed burns, where and when appropriate, as a valid fuel management tool.. Support coordinating with WA Department of Natural Resources (DNR) to identify potential locations for small pilot studies, and allow prescribed burns within the state to be training opportunities for local fire agencies and tribes.	3	Snohomish County Department of Emergency Management (DEM), Local Tribes, Local Communities, Local Fire Agencies, Washington State Department of Natural Resources (DNR)
FR-6	Work with local powerline companies to prioritize the maintenance of rights-of-way especially along evacuation corridors and buffers	3	SnoPUD, Puget Sound Energy (PSE), SnoCo Public Works, SnoCo Sheriff's Office (SCSO), Local Fire Agencies, DEM, Local Communities
FR-7	Replace potentially hazardous expulsion fuses with single-phase reclosers. Enable remote reconfiguration of utility protection systems in response to wildfire risk conditions, reducing response time and increasing safety of utility workers. Implement the Secure Modern Automated and Reliable Technology (SnoSMART) program to increase grid resiliency while seeking potential future grants by SnoPUD for under-grounding.	3, 4	SnoPUD
FR-8	Maintain trails, enforce trail rules and regulations including prohibition of motorized vehicle use. Enforce burn bans in campgrounds.	5	DCNR, DNR, USFS, Local Communities, Recreation groups

Table 15 – Fuels Reduction and Mitigation Strategies

3.2 Planning and Data Analysis

Item #	Mitigation Strategy	Goal(s)	Planning Partners
PA-1	Conduct a Snohomish County forest health analysis on County managed lands, including stand unit mapping and treatment prescriptions for each County forested property. Prioritize those at higher risk for forest health complications, such as lands which were harvested relatively recently or were previously owned by a timber company and exist either as a monoculture of Douglas-fir or even-aged alder stands. – PVCA, Lord Hill, Corcoran, etc.	3	DCNR, SCD, Recreation Groups

Item #	Mitigation Strategy	Goal(s)	Planning Partners
PA-2	Develop a fuels treatment database using Department of Conservation and Natural Resources (DCNR) forest projects, Planning and Development Services (PDS) clearing/grading and forest practice permits data and request timber sales and treatment data from DNR and USFS. Update annually and use to coordinate projects across the Local, State and Federal levels to reduce fuels within Wildland Urban Interface (WUI) boundaries.	3	DEM, PDS, DCNR, SCD, DNR, USFS
PA-3	Develop a Countywide forest management and fuel treatment plan on a sub-basin watershed level, and conduct modeling for fire resilience and forest health. Add all county managed forests and potential forest plot treatments from County Forester and hire contractor for County lands to perform forest stand surveys and timber cruises.	3	DCNR, SCD
PA-4	Develop and maintain City/Municipal partnerships for fuel reduction and wildfire response planning. Plan land/forest management strategies and coordinate with partner agencies to share best strategies	1, 3	DEM, DCNR, SCD, DNR, USFS, Local Communities
PA-5	Continue to work to lower the risk of ignition from downed wires along utility corridors	3	SnoPUD and PSE
PA-6	Fund and support a contractor/consultant focused on mitigating risk from electric infrastructure and above ground pipelines, including identifying potential risks of underground utilities and feasibility studies.	3	SnoPUD, PSE, Olympic Pipeline
PA-7	Model predetermined evacuation zones and plan evacuation routes. Identify and connect to shelters or other pre-determined locations and ensure locations have heat/air, water, backup electricity). Identify Places of Last Resort.	3, 4	DEM, SCSO, DPW, Snohomish County Human Services (SHS), Local Fire Agencies, Transit Agencies, American Red Cross
PA-8	Include energy utility representation from multiple sectors in the County Emergency Operation Center and ensure close communications with Incident Command.	4	DEM, SnoPUD, PSE

Item #	Mitigation Strategy	Goal(s)	Planning Partners
PA-9	Coordinate planning for transportation to/from cleaner air centers and evacuation shelters and work with Health Department to provide HEPA filters	4	DEM EOC, SCHS, Snohomish County Health Department (SHD), Red Cross, Transit agencies
PA-10	Integrate the needs of individuals with access and functional needs (AFN) in all phases of emergency management. AFN refers to individuals with a disability, chronic condition, or other factor that may limit their ability to act in an emergency (i.e. physical disability, intellectual disability, chronic conditions or injuries, limited English proficiency, older adults, and children). Coordinate with individuals and organizations representing AFN populations. Plan for AFN specific communications, evacuation, transportation, and sheltering considerations.	4	DEM, SHS, SnoPUD, PSE, SHD, Center for Independence, Local Communities
PA-11	Ensure emergency communications and notifications are accessible to AFN populations. Power outage and Public Safety Power Shutoff communications and notifications are especially critical for individuals with life-sustaining medical equipment.	4	DEM, SHS, SHD, PUD, PSE, Local Communities
PA-12	Study how the business community can contribute to wildfire preparedness and evacuations including contractor connections in mutually beneficial ways to support fire planning, response, and recovery.	5	DEM, Snohomish County Economic Development (SCED), Economic Alliance Snohomish County

Table 16 – Planning and Data Analysis Mitigation Strategies

3.3 Public Education and Outreach

Item #	Mitigation Strategy	Goal(s)	Planning Partners
PE-1	Coordinate SnoPUD education campaign – "see something, say something" for diseased/dead trees on public properties and rights-of-way threatening powerlines). Support and coordinate utility public outreach with Snohomish County Department of Emergency Management (DEM) messaging (social media, mailers, community events, etc.).	1	SnoPUD, DEM and Local Communities
PE-2	Encourage landowners to use small landowner resources from the Snohomish Conservation District (SCD) and apply for incentives and programs through the WA Department of Natural Resources (DNR) small forest landowner office. Promote information and education on forest management strategies to increase forest resiliency and what the benefits to the forest and the public are from these efforts.	2	DEM, DCNR, SCD, DNR
PE-3	Create or obtain user-friendly guides on fire-adapted home building materials and landscaping plants, including what not to use (wood fences, flammable plants), and provide information to construction and landscaping companies and have available at permitting and fire marshals' offices. Coordinate and train local code enforcement officials, landscapers, master gardeners, arborists on fire adapted best practices for home defensible space and develop cross-jurisdictional enforcement messaging. Pursue novel/strategic outreach including working with local hardware stores on what materials to stock and promote for Wildland Urban Interface (WUI) areas, nurseries on plant signage ("not recommended w/in 100 ft of your home"), and consider funding local tool libraries.	1	DEM, Fire Marshal's Office, PDS, WSU Extension, Local Communities
PE-4	Host educational events at the schools for continued education (i.e. Smokey Bear). Coordinate fields trips for students to healthy forests and burn scars. Use social media and radio as a tool for extending outreach.	1	DEM, Local Fire Agencies, DNR

Item #	Mitigation Strategy	Goal(s)	Planning Partners
PE-5	Coordinate education programs between Red Cross, SCD, and Snohomish County government regarding wildfire preparedness programs in multiple languages, and develop a team to coordinate communications, outreach, and planning between agencies. Promote the Red Cross wildfire preparedness program.	1	DEM, SCD, Red Cross
PE-6	Expand outreach about the Snohomish County Public Safety Hub and recruit community facilities willing to serve as possible cleaner air centers. Disseminate public education materials to human services agencies and partners during Wildfire Awareness Month and include it as an agenda item for the Snohomish County Organizations Advancing Readiness, Response, Recovery and Resiliency (SOAR4) meeting.	1, 4	SHS, DEM
PE-7	Develop educational plans, publish public education materials and fund/train people to implement the CWPP Public Education and Outreach objectives. Conduct community meetings in high-risk areas.	2	DEM, SCD, Local Fire Agencies
PE-8	Disseminate public education materials on steps residents can take at home to protect themselves from smoke during wildfire and prescribed burn events. Provide presentations to organizations representing, or serving, at-risk populations.	2	SHS, SHD, DEM, Fire Agencies
PE-9	Disseminate public educational materials that building managers can use to protect building occupants from smoke during wildfire and prescribed burn events. Include best practices from HVAC maintenance and improvements.	2	SHS, SHD, DEM, SCED
PE-10	Develop and share outreach materials for small communities and HOAs with guidance for maintaining fuel along right of ways and in commonly owned areas such as community forests or native growth protection areas.	1, 2	DEM, SCD, DPW, Local Fire Agencies
PE-11	Create outreach materials to educate on fire evacuation zones with the public. Exercise Ready, Set, Go within communities.	4	DEM, SCSO, Local Fire Agencies, Local Communities

Item #	Mitigation Strategy	Goal(s)	Planning Partners
PE-12	Support outreach for opting into the automated texts for power outages. Post outages on social media channels. Conduct Public Safety Power Shutoff (PSPS) outreach/education throughout year and coordinate with emergency management partners to expand education and outreach.	4	SnoPUD, DEM and Local Communities
PE-13	Fund, develop, and disseminate a guide for tourists with basic safety information (evacuation zones, fire safety, even bear safety) that they can get at hotels, short term rentals, hiking permit desks, etc.; Expand public education on red flag warnings including burn bans and throwing sparks from vehicles and equipment, and promote through local media and social media.	5	DEM, DCNR, SCED
PE-14	Develop recreation and tourism focused evacuation and closure plans. Consider triggers and signage for recreation facilities and amenities within affected areas to be closed for public safety.	5	DCNR, DNR, USFS, Local Communities, Recreation groups
PE-15	Post visual learning tools around restoration sites (thinning or prescription burns) leaning on recreation benefits. Develop Outreach kiosks around site progress (forest health photographs over time)	3, 5	DCNR, DNR, USFS, Local Communities, Private Timber Companies, Recreation Groups

Table 17 – Public Education and Outreach Mitigation Strategies

3.4 Policy

Item #	Mitigation Strategy	Goal(s)	Planning Partners
Pol-1	Find innovative ways to work with the insurance industry to influence cost reduction to homeowners by considering development regulations within Wildland Urban Interface (WUI) areas that encourage defensible space and fire-resistant materials and landscaping, and encourage residents and property owners to use insurance industry tools to implement fire resilient practices to reduce premiums within WUI areas.	1	Snohomish County Executive's Office (SXO), DEM

Item #	Mitigation Strategy	Goal(s)	Planning Partners
Pol-2	Coordinate Legislative asks to fund wildfire preparedness programs, policies and plans	1	DEM, DCNR, SHS, SHD, Local Communities, Local Fire Districts
Pol-3	Seek funding and develop a program for coached forest planning targeting landowners with parcels too large to qualify for small forest land assistance.	1	DEM, SCD, DNR
Pol-4	Support the development, outreach and implementation of the Communitywide Climate Resiliency Plan and Healthy Forest Program and the recommended actions within the plans	1, 2	SXO, DCNR, DEM
Pol-5	Work with the State Commissioner of Public Lands and Department of Natural Resources (DNR) foresters to prioritize the reduction of fuel/slash piles on DNR land, local public lands, and private forestlands, with highest priority going to areas with higher fire risk in the WUI	1	DEM, DCNR, SCD, Local Communities, Local Fire Districts, DNR
Pol-6	Create a collaborative agency or committee to align codes for wide reach benefits and to provide a platform for districts and agencies to work together on fire planning and prevention efforts	1	SXO, DEM, DCNR, Fire Marshal's Office, Planning and Development Services (PDS), SCD, Local Fire Agencies
Pol-7	Secure additional public and private funding sources for promotional materials - provide incentive for homeowners/landowners to implement defensible space through education and funded programs and leverage local Homeowners Association(s) involvement	1	SCD, DEM, Local Communities, Local Fire Agencies
Pol-8	Explore options to collaboratively fund a full-time staff member to conduct public outreach and education around wildfire risk and speak with homeowners to support outreach efforts including social media campaigns. Designated coordinator must be publicly visible, easy to access, well-resourced, connected to Federal, State and Local agencies and community leaders, and answer to a group of stakeholders and/or directors.	1	SXO, DEM, Fire Marshal's Office, Snohomish County Fire Chief's Association, DCNR, SCD, Local Fire Agencies

Item #	Mitigation Strategy	Goal(s)	Planning Partners
Pol-9	Support lobbying efforts at the state level through Fire Chiefs Association and similar channels to encourage legislative/state-level action on WUI codes, fire safety regulations (i.e. no more wood shingle roofs).	1	SXO, Local Mayors, Snohomish County Fire Chief's Association
Pol-10	Find innovative ways to limit the ignition risks from fireworks including promoting use in safer locations, fire safety education, and consider fireworks bans where supported.	2	Snohomish County Council, Local City Councils, Local Fire Agencies
Pol-11	A healthy local timber harvesting and production industry is critical for fuel management. Find innovative ways to keep local lumber mills from closing such as collaborating with public land managers to produce lumber from thinning harvests and road projects. Promote and incentivize new technologies such as the process to convert materials from logs into cross laminated timber. Work with the logging industry and DNR programs to train more skilled workers to deploy for fires and create a red card certification process to deploy loggers. Lobby the State Legislature to support and incentivize the local timber and lumber industries to maintain a robust workforce, available year-round.	2, 5	SXO, SCED, DNR, State Legislature, State Fire Marshal
Pol-12	Coordinate and plan with voluntary organizations involved in mass care, emergency assistance, temporary housing, and human services regarding their role following wildfire response.	2	SHS, Red Cross
Pol-13	Use monetary incentives or rebates to building owners to improve HVAC systems	2	SXO, DCNR (OES)
Pol-14	Work with the Department of Conservation and Natural Resources (DCNR), DNR, United States Forest Service (USFS), and private timber companies to ensure easements remain open for fire response by simplifying multiple locking systems on gates for different agencies.	2	DEM, DCNR, DNR, USFS, Private Timber Owners, Local Fire Agencies

Item #	Mitigation Strategy	Goal(s)	Planning Partners
Pol-15	Collaboration between Snohomish County Office of Energy and Sustainability (OES), Department of Emergency Management (DEM), and the Snohomish Conservation District (SCD) to pursue grant funding for fuel reduction efforts and outreach. Align efforts with the Countywide Climate Resilience Plan, Hazard Mitigation Plan, and SCD programs.	3	OES, DEM, SCD
Pol-16	Find resources to create a collaborative funding grant application for groups like Team Rubicon to provide support to homeowners for defensible space implementation.	3	DEM, SCD, Local Fire Agencies
Pol-17	Consider Code Enforcement actions for private road/driveway maintenance (eg. a road with more than 12 houses must maintain vegetation within the right-of-way).	3	PDS, Fire Marshal's Office, Local Communities
Pol-18	Consider incentivizing biochar businesses, especially where chipping programs are not available.	3	SCED, SXO
Pol-19	Seek funding and grant opportunities to provide backup battery systems to individuals with life-sustaining medical equipment.	2, 4	SHS, SHD
Pol-20	Seek funding and grant opportunities to provide portable HEPA filters to individuals at increased risk during wildfire smoke events.	2, 4	SHS, SHD
Pol-21	Seek funding and grant opportunities for extended hours and HVAC upgrades at publicly accessible buildings willing to serve as cleaner air centers	4	SHS, OES, Local Communities
Pol-22	Work with Economic Alliance Snohomish County to increase outreach to industry and assist in response to wildfire recovery, planning on behalf of counties, municipalities, industry, and individuals.	5	SXO, DEM, Economic Alliance Snohomish County, Snohomish County Fire Chief's Association

Item #	Mitigation Strategy	Goal(s)	Planning Partners
Pol-23	Develop a post-fire recovery program that advocates for state funding to help businesses within areas that lose significant revenue due to evacuation orders and no trespassing zones, especially in higher risk areas dependent on a tourist driven economy.	5	SXO, SCED, SnoCo Office of Recovery and Resilience
Pol-24	Form a Local Coordination Group from the CWPP Planning Partners to establish implementation measures, mitigation strategy monitoring metrics, and subcommittees to work on the strategies under the mitigation categories. Host an annual meeting of this group to monitor the status and progress of strategies and coordinate projects for grant and funding opportunities. Provide a mitigation progress report to County Leadership and Snohomish County Tomorrow on an annual basis.	2, 4	DEM and all CWPP Planning Partners

Table 18 – Policy Mitigation Strategies

3.5 Wildfire Response Readiness

Item #	Mitigation Strategy	Goal(s)	Planning Partners
WR-1	Obtain training for law enforcement to facilitate wildfire evacuation. Develop plans to use local skilled groups such as the Tulalip Fishing Fleet for Search and Rescue efforts. Coordinate planning efforts between Snohomish County Department of Emergency Management (DEM) and Snohomish Conservation District (SCD) for livestock evacuation and sheltering to ensure alignment and redundancies between agencies including collaborative efforts for messaging	4	DEM, SCSO, Local Fire Agencies, DCNR, SCD, Local Communities
WR-2	Develop a network of partnerships in the CWPP Annex Zones to identify communication networks, resources, equipment, emergency response plans, including roles and responsibilities, and communications plans.	2, 4	DEM, SCSO, Local Fire Agencies, Sno911, Local Communities
WR-3	Pursue funding and no-cost options to host training/field exercises for emergency management, fire districts, policy decision-makers and host an annual summit to discuss and exemplify importance to local officials. Create a public awareness day and leverage media and agency connections to share with the public.	2, 4	DEM, Snohomish County Executive's Office, Local Fire Districts, Local Communities

Item #	Mitigation Strategy	Goal(s)	Planning Partners
WR-4	Coordinate and host monthly fire marshal meetings and annual fire season wrap-up to summarize successes and challenges during the fire season (adaptive management); increase program reporting and data collection	2, 4	Fire Marshal's Office
WR-5	Seek funding to assist homeowners with engineering assessments and posting weight limits for unassessed/unmarked bridges to ease fire apparatus access during response, replacing wood bridges with concrete and steel, expanding driveways/access; obtaining egress signage in confusing community developments. Amend gate numbering system between locals, WA Department of Natural Resources (DNR), United States Forest Service (USFS) to reduce confusion and increase access for evacuation routes.	2, 4	Local Communities, Local Fire Agencies
WR-6	Conduct feasibility studies to update public buildings to become shelters from smoke or heat.	2, 4	SHS, SHD
WR-7	Identify gate owners and ensure appropriate fire agency has contacts for all the keys. Consider replacing locking mechanisms with alternative universal systems and provide keys or codes ensuring universal access for all agencies	2, 4	Local Fire Agencies, DNR, USFS, Private Timber Companies
WR-8	Grow wildland firefighting capabilities through expanded training for wildland firefighters to foster safe and effective response. Support Incident Management Team (IMT) training and advocate for qualifying ("red-carding") personnel to deploy and gain wildland firefighting experience. Consider contracting jail and rehabilitation programs that train and certify for wildland fire fighting or vegetation management for fuel reduction projects and assisting fire responses.	2, 4	DNR, Local Fire Agencies, Snohomish County Department of Corrections
WR-9	Assist Red Cross with locating and securing facilities to be used for evacuation shelters	4	DEM, SHS, DCNR, Red Cross

Item #	Mitigation Strategy	Goal(s)	Planning Partners
WR-10	Consider road clearance, security, and SnoPUD prioritization for vegetation management along evacuation corridors and include the potential populations of Camano (Island County) and Sky Valley (King County) during evacuations	4	SnoPUD
WR-11	Seek funding to purchase Artificial Intelligence (AI) wildfire detecting equipment and solar powered backup equipment for communications towers	2, 4	DEM, Local Fire Agencies, Local Communities

Table 19 – Wildfire Response Readiness Mitigation Strategies

4.0 Resources

4.1 Resources for Communities:

Washington Fire Adapted Communities Learning Network - https://www.fireadaptedwashington.org/
Toolkit - https://www.fireadaptedwashington.org/toolkit/
Sponsored by the Washington Resource Conservation and Development Council

Natl Cohesive Wildland Fire Strategy - https://www.forestsandrangelands.gov/strategy/
USDA and US Department of Interior

DNR CWPP Guidance - https://www.dnr.wa.gov/publications/rp_cwpp_guidance_04102023.pdf.pdf
Provides emergency managers and community planners with guidance on creating and updating Community Wildfire Protection Plans

Creating a Community Wildfire Protection Plan - https://www.usfa.fema.gov/downloads/pdf/publications/creating_a_cwpp.pdf
FEMA, US Fire Administration guidance document on developing Community Wildfire Protection Plans

Fire Management Assistance Grants - https://mil.wa.gov/fire-management-assistance-grant-program-fmagp-for-public-agencies
FEMA sponsored grant for fire agencies

Wildfire Intel Dashboard - https://experience.arcgis.com/experience/6cdda73cf6154949a1fae76ccb2900a0
DNR dashboard displaying resources available and deployed on DNR jurisdiction fires and statistics on past DNR fires including ignition sources.

4.2 Resources for Individuals and Forestland Owners:

Snohomish Conservation District Wildfire Resilience - https://snohomishcd.org/wildfire-resilience
Resources for property owners including site assessments and assistance with chipping wood debris

DNR Small Forests Program - https://www.dnr.wa.gov/cost-share
This program provides technical and financial assistance to implement forest health or wildfire mitigation treatments or to help landowners write forest management plans on properties up to 5,000 acres.

DNR Wildfire Preparedness - https://www.dnr.wa.gov/programs-and-services/wildfire/wildfire-preparedness

Washington State Consulting Forester and Silvicultural Contractor Directory - https://forestry.wsu.edu/consultingdirectory/
This is a compilation of forestry professionals in Washington State who can provide various forestry services to private landowners including professional service information, bonding and insurance and location/areas served.

Fire Agencies - https://snohomishcountywa.gov/382/Fire-Districts
Contact your local fire agency for tips and recommendations on home fire safety and preparing your household for evacuation.

Community Wildfire Ambassador - https://www.wildfireambassador.org/
Sponsored by the Washington Resource Conservation and Development Council

FireWise USA® - https://www.nfpa.org/Education-and-Research/Wildfire/Firewise-USA
Find resources from the National Fire Protection Association to make your home and property more resilient to wildfires. The site provides a Toolkit to get your household and neighborhood started on becoming a Firewise USA® community.

Wildfire Ready Neighbors - https://wildfireready.dnr.wa.gov/
A program sponsored by WA Department of Natural Resources to help people prepare for wildfire on a neighborhood or HOA scale. A template plan is provided and community groups can schedule a site visit from DNR staff to assess the neighborhood or community forest.

After the Fire - https://afterthefirewa.org/
Post fire recovery resources for individuals and families, sponsored by the Washington Resource Conservation and Development Council, WA Department of Natural Resources and Okanogan Long Term Recovery Group

Snohomish County Weatherization Program – https://snohomishcountywa.gov/600/Weatherization-Program
The Snohomish County Weatherization program provides FREE home energy improvements and conservation education to qualifying low-income households and can help homeowners and renters lower their utility costs and make their homes more comfortable and resilient to wildfire smoke.

4.3 Resources for Safety and Evacuation:

SnoCoAlerts - https://www.smart911.com/smart911/ref/reg.action?pa=snohomish
Powered by Smart911, SnoCoAlerts is the county's early warning system and notification system. You can choose what activities you want to be alerted about. Your zip code and address are used to tailor alerts for where you live. You can add more alerts or update your contact methods at any time.

Public Safety Hub - Snohomish County Public Safety Hub
The website for real-time hazard specific information in Snohomish County, such as information on sheltering, evacuations, real time response, and more.

Snohomish County Hazard Viewer - Snohomish County Hazard Viewer
The Snohomish County Hazard Viewer is a collection of interactive digital maps designed to help people better understand and manage hazard risks. Information is presented in a searchable format so you can be aware of and prepare for potential hazards where you live and work, and the many other places life takes you.

Citizen Emergency Response Team (CERT) - CERT | Snohomish County, WA - Official Website
A program that teaches basic disaster response skills that can help you assist your community during disaster situations. The training typically consists of 20 hours of instruction including hands on learning. Some programs provide training one night a week over a course of eight weeks while other programs offer fast track training that can be completed in one weekend.

Ready Set Go – Snohomish County Wildfire Preparedness
Evacuation alerts in Snohomish County follow the Ready, Set, Go! model. Alerts may be sent to your phone if wildfire danger is imminent. They are used when it may be critical to get away from danger fast.

2 Weeks Ready - 2WeeksReady
Two Weeks ready is the method of ensuring your household has 2 weeks of food, water, medications, and any other supplies your household may need if you need to shelter in place.

Acronym/Abbreviation List

Acronym/Abbreviation	Name
AFG	Assistance to Firefighters Grant
AQI	Air Quality Index
BAER	Burned Area Emergency Response
BPA	Bonneville Power Administration
CFI	Center for Independence
CIP	Capital Improvement Plan
CWDG	Community Wildfire Defense Grant
CWPP	Community Wildfire Protection Plan
DCNR	Snohomish County Department of Natural Resources
DEM	Snohomish County Department of Emergency Management
DNR	Washington State Department of Natural Resources
DPW	Snohomish County Department of Public Works
DOH	Washington State Department of Health
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GPI	Glacier Peak Institute
IC/UC	Incident Command/Unified Command
NOAA	National Oceanic and Atmospheric Administration
PDS	Snohomish County Planning and Development Services
PM2.5	Fine Particulate Matter
PSCAA	Puget Sound Clean Air Agency
PSE	Puget Sound Energy
PSPS	Public Safety Power Shutoff
SAFER	Staffing for Adequate Fire and Emergency Response
SCD	Snohomish Conservation District
SCED	Snohomish County Economic Development
SCEOC	Snohomish County Emergency Operations Center
SHD	Snohomish County Health Department
SHS	Snohomish County Human Services
SnoPUD	Snohomish County Public Utility District No. 1
SnoSMART	SnoPUD Secure Modern Automated and Reliable Technology
SCSO	Snohomish County Sheriff's Office
SXO	Snohomish County Executive's Office
TIP	Transportation Improvement Plan
UDC	Unified Development Code of Snohomish County
USDA	United Stated Department of Agriculture
USFS	United States Forest Service
WRIA	Water Resource Inventory Areas
WSDOT	Washington State Department of Transportation
WUI	Wildland Urban Interface

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[i] Contemporary methods for mapping WUI areas often rely on highly accurate data sources such as building locations derived from remote sensing (Carlson 2022). Density calculations use actual locations of homes or structures in a variable radius neighborhood, which Bar-Massada et al (2013) describes as "calculat[ing] the density of housing units and wildland vegetation around each pixel in a landscape by using a circular moving window analysis". Similar methods are used by Ketchpaw et al (2022). In the WUI-P method, vegetation cover and density requirement remain the same but are calculated using various neighborhood sizes instead of census blocks. For the Snohomish County analysis, a neighborhood radius of 500m was used for density calculations.

[ii] NOTE: The “Forest Ownership CONUS” data product from the US Forest Service provided the basis for these estimations. Per USFS, “this data product contains raster data depicting the spatial distribution of forest ownership types in the conterminous United States circa 2020. The data are a modeled representation of forest land by ownership type, and include three types of public ownership: federal, state, and local, as well as three types of private: family (includes individuals and families), corporate,

and other private (includes conservation and natural resource organizations, unincorporated partnerships and associations, and Native American tribal lands)".

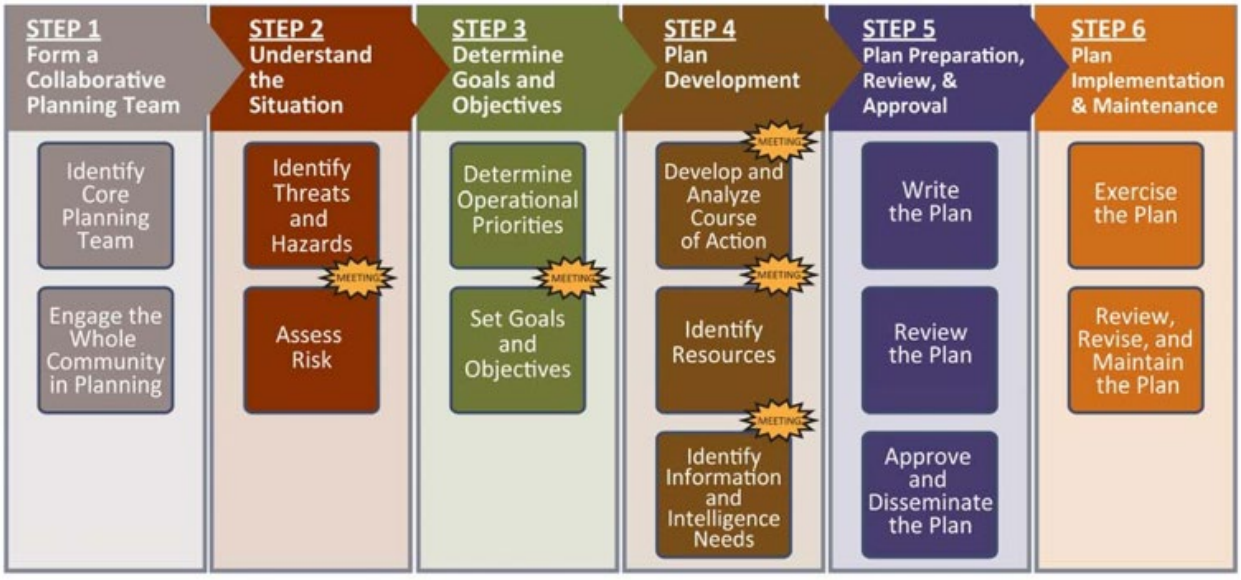
Appendix A

Planning Process

After the Bolt Creek Fire in 2022, Snohomish County Department of Emergency Management (DEM) applied for a Community Wildfire Defense Grant (CWDG) to complete a countywide Community Wildfire Protection Plan (CWPP). The application did not score well enough for wildfire risk and it did not move on to the competitive Federal level. On May 24, 2023, the Snohomish County Fire Chief's Association delivered a letter to DEM petitioning and supporting the development and formalization of a countywide Community Wildfire Protection Plan. The chiefs felt that the plan would help establish best practices, better coordinate first responders and ensure that grant applications were given more of a priority under current funding models.

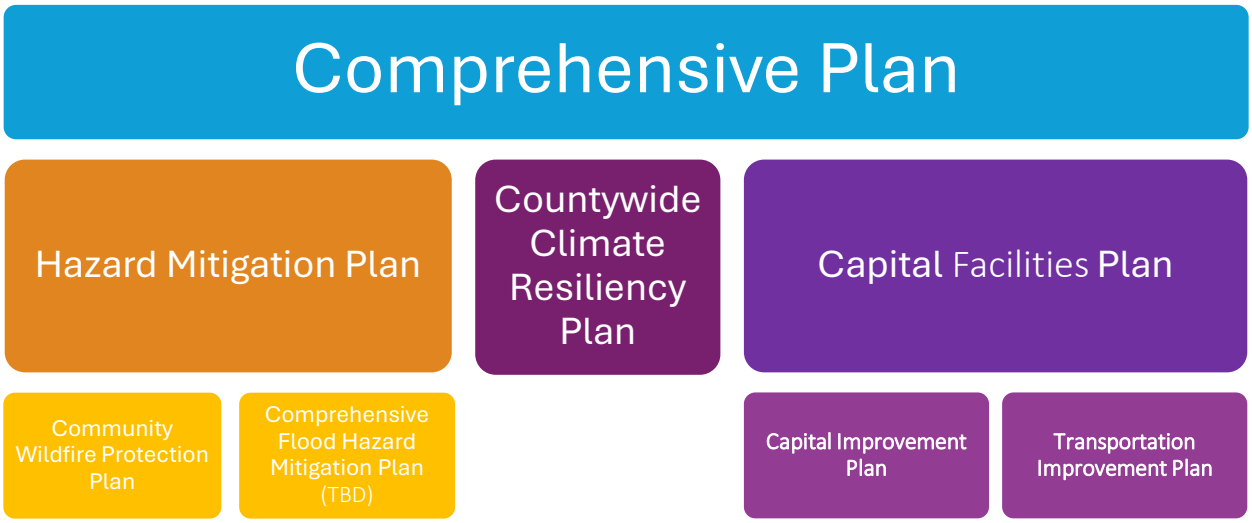
DEM formalized an internal planning team to begin the CWPP process and to apply for the next round of the CWDG grant funding to support it. The team began coordination with 50 planning partners in the public, private and nonprofit sectors to form a CWPP Planning Team and a CWPP Advisory Committee. The Planning Team kicked off its first meeting in November of 2023 with a general discussion about the growing concerns around wildfire risks, the requirements of a CWPP and assisted in drafting a framework for the plan.

The Planning Team met once a month, and the Advisory Committee was briefed on their progress on a quarterly basis. The planning process followed the guidelines in the CWPP Handbook and FEMA's Community Preparedness Guide 101 steps to planning.



The teams met throughout 2024 identifying risks and concerns, setting goals and objectives, and discussing CWPP content and firefighting resources. Once this content was developed, the Planning Team and Advisory Committee came together with industry subject matter experts at a Mitigation Strategy workshop in October of 2024 at the Evergreen Fair Park in Monroe. Local foresters presented best available science, and strategies to help meet the plan's goals and objectives were developed over table discussions and captured in notes and maps. DEM worked

with partners to refine these strategies over the next few months. DEM staff also held focused work groups to better understand the vulnerabilities and risks to individuals, communities and businesses to help develop the content for the risk and response section. A final draft of the mitigation strategies was sent for review in May of 2025, and the draft plan was disseminated to partners and the public in July for comment.



The plan was developed in alignment with the Snohomish County Comprehensive Plan 2024 Update. The DEM CWPP team worked with staff at Snohomish County Planning and Development Services (PDS) during the Comprehensive Plan update to provide some wildfire goals and objectives in the Climate Change and Resiliency element, specifically CRE Policy 3.B.2 *"The County shall coordinate with jurisdictions and fire protection agencies to prepare for and mitigate the effects from wildfires and smoke by developing a Community Wildfire Protection Plan and coordinating fuel reduction in wildland urban interface (WUI) areas."* Comments about wildfire risk and response received during the Comprehensive Plan Update process were forwarded to the DEM CWPP team to be considered for the 2025 Hazard Mitigation Plan Update. Additionally, the CWPP will be implemented as the Wildfire Chapter of the County's HMP Update when approved.

Public Process

Snohomish County opened up a robust public survey in July 2024 asking residents about their preparedness levels for wildfire and evacuation. The survey was open for 4 months and received 1,110 responses. The internal team at DEM compiled the survey results into a report that can be found in Appendix B.

DEM held two CWPP Open Houses for residents in the County on May 18th and May 22nd, 2025, to better understand the purpose of a CWPP, wildfire risks to their properties, meet with their local fire districts and local planning partners for home hardening, defensible space and wildfire smoke actions they could take at a household level. Residents were also able to connect with the Snohomish Conservation District and the Washington Department of Natural Resources to sign up for site visits under their various programs. Attendees expressed concerns about the effort and costs of home hardening projects and defensible space work, and traffic concerns during a wildfire evacuation.

DEM placed the CWPP out for partner and public review on July 1, 2025 and kept it open until July 30th.

Review Process

The CWPP received public review from July 1 – 30 2025. DEM held a Planning Team meeting on August 6th to review and adjudicate the public comments. The finalized plan was sent to DNR in August for review by the DNR Community Resilience Program and on to the State Forester for approval and signature. Once the plan was approved by the State Forester it was sent to the Snohomish County Council for approval and adoption.

Implementation Process

Snohomish County DEM will coordinate a CWPP Local Coordination Group to establish implementation measures, mitigation strategy monitoring metrics, and subcommittees to work on the strategies under the mitigation categories. The intent is for the subcommittees to meet and work throughout the year on prioritized mitigation strategies for their group. The subcommittees will also scope projects and develop language for grant applications and funding requests to support the identified work.

DEM will host the Local Coordination Group at least once a year in the Spring to monitor the status and progress of strategies and coordinate projects for grant and funding opportunities. This group will also provide a mitigation progress report to County Leadership and Snohomish County Tomorrow on an annual basis.

Maintenance and Update Process

The Local Coordination Group will monitor the progress of the Mitigation Strategies and the occurrence of wildfires in Snohomish County. The group will decide which strategies will be prioritized during the five year planning horizon, and work to reprioritize strategies as others are completed or determined unfeasible. They will also identify gaps in the CWPP plan and mitigation strategies to include in the next update cycle.

Plan updates will occur every 5 years in concurrence with the Hazard Mitigation Plan Update. The Local Coordination Group will be the sponsor of the CWPP update and will assist in getting input from additional planning partners for workshops and subject matter expertise. The County understands that any updates, including for minor housekeeping will require an additional review and approval by the Washington State Department of Natural Resources.

Planning Partners

American Red Cross

Atterbury Consultants

City of Arlington

City of Gold Bar

City of Monroe

City of Sultan

City of Snohomish

City of Stanwood

Community Transit

Darrington Forestry Collaborative

East County Fire and Rescue

Fire District 4

Fire District 5

Fire District 16

Fire District 24

Fire District 25

Fire District 26

Glacier Peak Institute

King County Office of Emergency Management

North County Fire and Rescue

Pilchuck Tree Farm (Pacific Denkman Company)

Puget Sound Energy

Regional Alliance for Resilient and Equitable Transportation (RARET)

Sauk-Suiattle Tribe

Snohomish Conservation District

Snohomish County Fire Chief's Association

Snohomish County Department of Conservation and Natural Resources

Snohomish County Department of Human Services

Snohomish County Department of Public Works

Snohomish County Executive's Office

Snohomish County Fire Marshal's Office

Snohomish County Health Department

Snohomish County Office of Energy and Sustainability

Snohomish County Planning and Development Services

Snohomish County Sherriff's Office

Snohomish County Transportation Coalition (SnoTRAC)

Snohomish Regional Fire and Rescue

Snohomish County Public Utility District No. 1 (SnoPUD)

South County Fire

Stillaguamish Tribe

Team Rubicon

The Wilderness Society

Town of Index

Town of Darrington

Tulalip Tribes

US Forest Service

Washington Fire Adapted Communities

Washington Resource and Conservation Development Council

Washington State Department of Natural Resources

Washington State University

List of Low-Income, Vulnerable Census Blocks in or adjacent to WUI

Snohomish County has 23 Census Tracts which have a median household income less than 80% of Washington State (a median household income less than $65,920) meeting the low-income criteria.

(Source: U.S. Census Bureau. (2021). American Community Survey. Washington, DC. All Census Tracts within Snohomish County, Washington. Income (Households, Families, Individuals), https://data.census.gov/table?t=Income+(Households,+Families,+Individuals)&g=050XX00US53061$1400000&tid=ACSST5Y2021.S1903&tp=true)

This includes the town of Darrington, WA which meets the "low income" criteria. It has a median household income of $32,750. In order to qualify in Washington, locations must have a median household income less than $65,920, which is 80% of Washington's median household income.

(Source: U.S. Census Bureau. (2021). American Community Survey. Washington, DC. As reported by the CWDG Data Tool, https://wildfirerisk.org/cwdg-tool/5300016690)

11 of the 23 low-income Census Tracts are also identified as underserved Census Tracts by the Climate and Economic Justice Screening Tool. One Census Tract of 651 square miles in the Darrington Area is in the 73rd percentile for their share of properties at risk of fire in 30 years.

(Source: Council on Environmental Quality. (2022). Climate and Economic Justice Screening Tool, version 1.0. https://screeningtool.geoplatform.gov/en/downloads)

20 of the 23 low-income Census Tracts have a CDC Social Vulnerability Index score above 0.75.

(Source: Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program. CDC/ATSDR Social Vulnerability Index 2020 Database Washington. https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html.

Census Block Number	Total Population
53061040200	6736
53061040400	4677
53061040700	4889
53061041805	6261
53061041808	4364
53061041809	4838
53061041810	5694
53061041812	6157
53061041815	3267
53061041904	6766
53061041906	3408
53061041907	3652
53061050900	3871
53061051401	4157
53061051402	4285
53061051500	6124
53061051701	6955
53061052402	4328
53061052903	4358
53061052905	4753
53061053102	4910
53061053509	4078
53061053700	3105