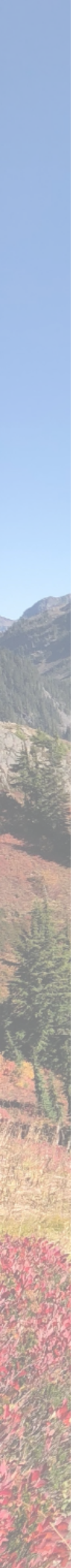
North Sound ACH

ENVIRONMENTAL JUSTICE

IN THE NORTH SOUND REGION

January 2026



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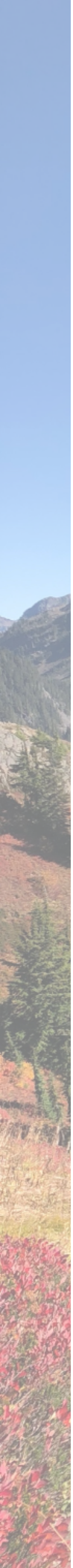
Executive Summary

The impacts of industry have shaped the landscape of the North Sound region for hundreds of years, and climate change is poised to shape our region for hundreds of years into the future. Rising sea levels, warmer temperatures, changing weather patterns – all of these will have disproportionate effects on many of the diverse communities that live here.

This desk review examines environmental justice conditions in the North Sound region's five counties and eight Tribal Nations. While meaningful action is underway at state and local levels, regional coordination is a missing component that can strengthen the representation of communities overburdened by environmental justice impacts.

Climate change is already intensifying risks across the region through sea level rise, flooding, extreme heat, drought, and wildfire. Food and housing insecurity compound these difficulties; those living outdoors or in substandard housing have less protection from extreme heat and precipitation events, and limited income results in limited means for households to adapt to changing conditions.

Historic racial inequities, income inequality, housing insecurity, access to quality medical care, all of these issues compound the challenges facing the region by climate change and other environmental justice issues. None of these problems are isolated and solvable on their own, and all will be factors in the solutions that make the North Sound region a place where everyone can thrive.



Introduction

The North Sound region consists of five counties and eight Tribal Nations in Northwestern Washington State. Home to over 1 million people, the region contains a diverse geography: large urban centers, mountainous regions, island communities, agricultural farmland, and everything in between. With this diversity comes complexity – especially when it comes to the already complex topic of environmental justice.

What is environmental justice? Environmental justice can be defined as "the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and has equal access to the decision-making process to have a healthy environment in which to live, learn, and work."[1].

This desk review will focus on the domains of C*limate Resilience, Food Insecurity & Access, Housing & Displacement,* and *Pollution & Industrial Impacts* – all the while bearing in mind the *communities most impacted* by these issues. It will provide a variety of data sources and areas for individual learning and research, and is intended to provide an initial perspective (by no means comprehensive) of the environmental justice issues that face the North Sound region.

Finally, it will make the case that while there is meaningful action on environmental justice at the state level and in many local jurisdictions, a coordinated regional perspective is a missing layer that could provide a wider lens on these issues, as well as provide a platform to amplify and empower individual voices.

Five Counties:

- Island
- San Juan
- Skagit
- Snohomish
- Whatcom

Eight Tribal Nations:

- Lummi Nation
- Nooksack Indian Tribe
- Samish Indian Nation
- Sauk-Suiattle Indian Tribes
- Stillaguamish Tribe of Indians
- Swinomish Indian Tribal Community
- Tulalip Tribes
- Upper Skagit Indian Tribe

[1] https://ecology.wa.gov/about-us/who-we-are/environmental-justice

Climate Resilience

"Climate resilience is the ongoing process of anticipating, preparing for, and adapting to changes in climate and minimizing negative impacts to our natural systems, infrastructure, and communities."

- *Washington State Climate Resilience Strategy*

Climate change has the potential to drastically alter the character of the planet, and the North Sound region is no exception. This section will examine three areas where climate change will impact the North Sound region: coastal inundation; flooding; and heat, drought and wildfire.

This section will also examine efforts, both at the local and state levels, where the impacts from these areas are attempting to be mitigated.

Remnants of Bellingham Bay flooding into Boulevard Park in Bellingham after a king tide, December 2023

Coastal Inundation

Rising sea levels will result in higher tides and storm surges reaching coastal land that was formerly safe from flooding.

Flooding

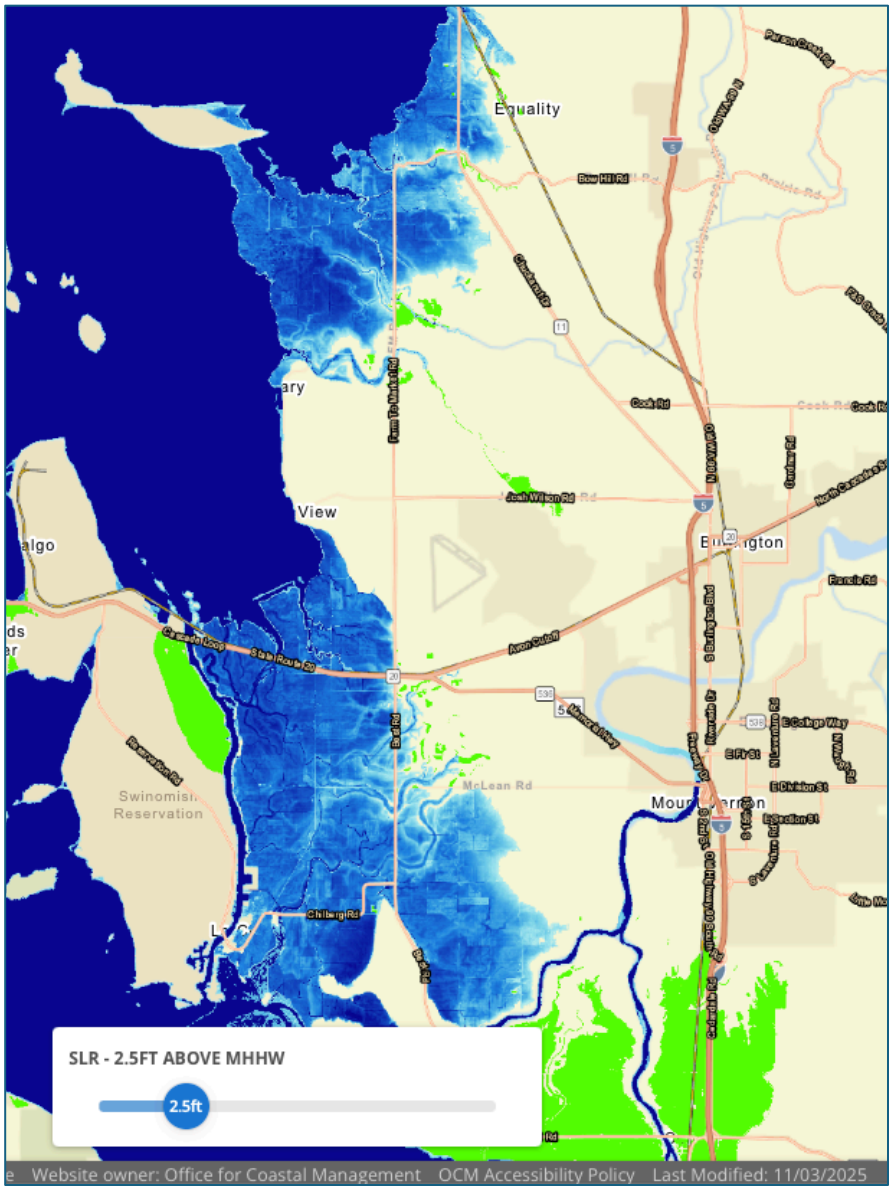
As weather patterns shift and severe precipitation events become more frequent, the rivers in the North Sound region will be more prone to flooding above and beyond historic levels.

Heat, Drought, and Wildfire

Extreme heat and drought can negatively impact community's health, energy consumption, and access to water, as well as create ripple effects in agriculture and food supply. Serious air quality impacts from wildfire smoke are not uncommon and have the potential to become worse as conditions for wildfires grow.

Coastal Inundation

Rising sea levels pose a significant long-term threat to the North Sound region's infrastructure, farmland, and communities. By 2100 Washington's coasts are projected to see a sea level rise between 1.5-2.5 feet[2]. With no mitigation efforts, a sea level rise of 1.5 feet would result in a significant portion of western Skagit Couty's farmland being inundated by the Salish Sea, as well as much of the town of La Conner. In Snohomish County the Puget Sound would flow inward along the Snohomish River to fill in much of the wetlands east of Everett.



Coastal inundation in Skagit County after a 2.5 ft rise in sea level
Source: NOAA Coastal Flood Exposure Mapper

At a 2.5 ft rise in sea level, the town of Edison in Skagit County is projected to be completely flooded, and all road access to the far western portion of Skagit County (including the Swinomish Reservation and the city of Anacortes), as well as Island County, would be cut off. Access to Camano Island in Snohomish County would be similarly affected with Highway 532 and the surrounding coastland, including the eastern portion of the town of Stanwood being inundated. In Whatcom County the Lummi Reservation would not be entirely cut from the mainland, but would be much more prone to flood events that would isolate it entirely from vehicle access. The more mountainous and elevated character of the San Juan Islands offers protection from much of the impacts of sea level rise, but at 2.5 ft some neighborhoods and shoreline residences on Lopez, San Juan, and Orcas Islands, as well as the Orcas Island Airport, would be affected.

[2] https://apps.ecology.wa.gov/publications/documents/2401006.pdf

Flooding

In December 2025, 100-year floods caused by an atmospheric river caused mandatory evacuation orders to be put in place for many communities along the Nooksack River in Whatcom County, the Skagit River in Skagit County, and the Stillaguamish, Snohomish, and Skykomish Rivers in Snohomish County. The communities of Sumas and Everson experienced a similar flood event when the Nooksack River reached historic crests in November 2021. Both flood events resulted in loss of life, damage to homes and businesses, and long-term recovery efforts.

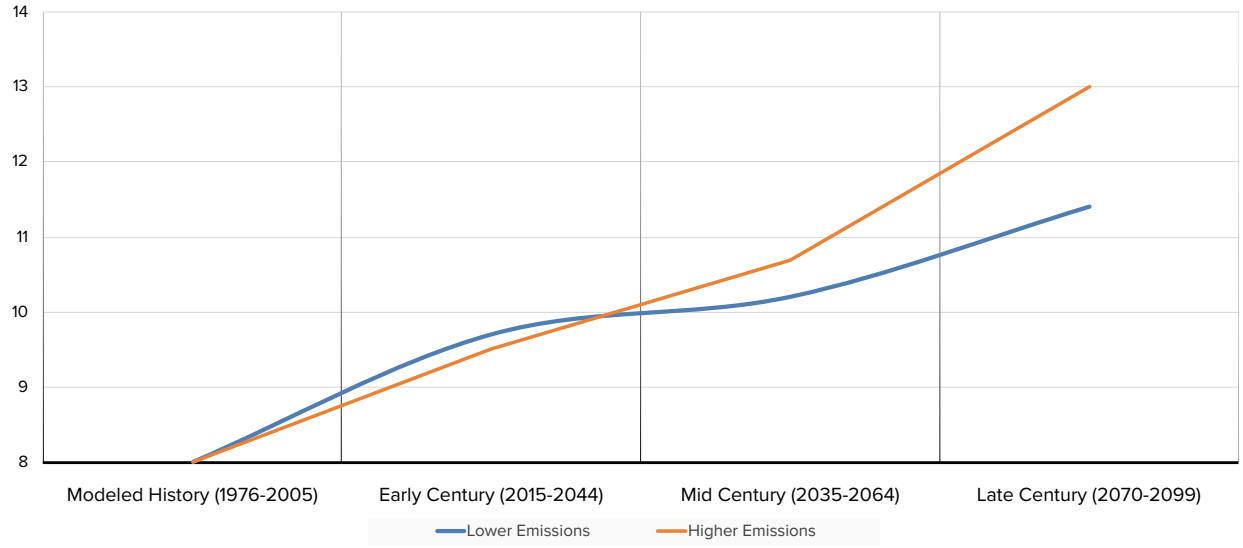
The National Oceanic and Atmospheric Administration (NOAA) projects that regardless of a future with lower or higher greenhouse gas emissions, the number of days with higher than 99th percentile precipitation in the North Sound region will increase.

99th Percentile Precipitation:

An intense rainfall event where only 1% of all precipitation events in a historical period exceeds this amount.

Using Whatcom County as an example, NOAA climate models projected eight 99th percentile precipitation days annually from 1976-2005, while projecting 13 such days annually (over a 50% increase) by the end of the century if greenhouse gas emissions rise. Over the next century, record-breaking rainfall and severe flooding events will likely become more common in the North Sound region, as well as other areas in the rain shadow of the Cascades[3].

Whatcom County: Annual days that exceed 99th percentile precipitation



Source: NOAA Climate Mapping for Resilience and Adaptation

[3] https://resilience.climate.gov/pages/get-started/#past_future

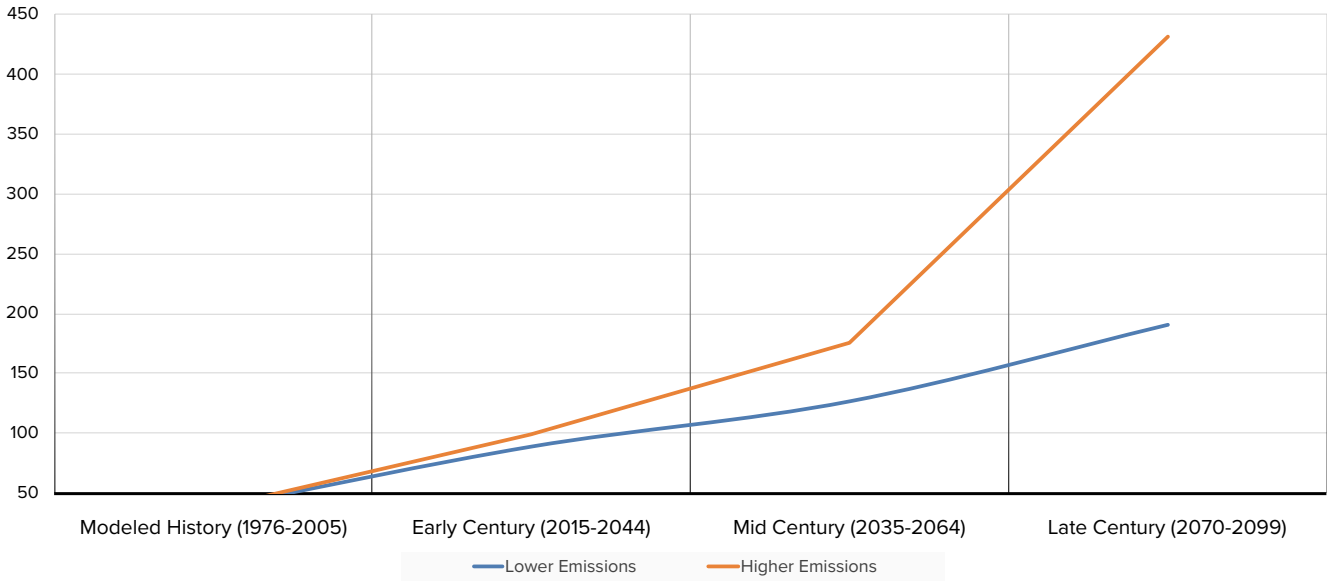
Heat, Drought, and Wildfire

Warmer temperatures are expected to become more common as the climate continues to shift. One way to measure this change is in cooling degree days (CDDs). A cooling-degree day measures the amount of cooling it would take to maintain a comfortable indoor temperature of 65°F. As an example, if the temperature outdoors is 70°F, it would take 5°F of cooling to reach 65°F. By counting the number of cooling degree days in a year, climate scientists can measure and project trends over time.

Cooling Degree Day:

An estimate of the cooling needed to maintain a comfortable indoor temperature. Calculated as the sum of the degrees above 65°F per day per year.

Snohomish County: Annual Cooling Degree Days



Source: NOAA Climate Mapping for Resilience and Adaptation

By the end of the century, depending on lower or higher greenhouse gas emissions, Snohomish County can expect either a gradual or sharp increase in annual cooling degree days. NOAA models show 38.1 CCDs annually during a modelled history ending in 2005, with a lower emissions projection in 2099 at 190.8 CCDs annually. However, in a higher emissions scenario, 2099 is projected to end with 431.3 CCDs annually, an 11x increase. Increasing temperatures can carry a human cost – during a heat dome in 2021, 126 people died of heat-related causes, making the heat dome the deadliest weather event in Washington State history[4].

[4] https://cig.uw.edu/wp-content/uploads/sites/2/2023/06/CIG-Report-Heat-202-pages.pdf

Heat, Drought, and Wildfire (cont.)

Droughts come in many forms: *meteorological drought* occurs when dry weather patterns result in a prolonged lack of precipitation, *hydrological drought* is experienced when low water supply occurs in a water system, and *socioeconomic drought* describes how the supply and demand of commodities, such as food, is affected by drought[5]. Regardless of the form, climate change will make droughts more common in the North Sound over the next century, creating challenges for the region's agricultural economy, water supply, and people.

Drought:

A deficiency in precipitation over an extended period of time (usually a season or more), resulting in a water shortage.

Precipitation is the only method of recharge for San Juan County's surface and groundwater supply; though the geology of the San Juan Islands results in lower amounts of rainfall than other areas of the state as well as more difficult retention of the precipitation that does fall[6]. As the climate shifts and precipitation events become less frequent and more intense, the ability for the ground to absorb rainwater and replenish groundwater supply will become less effective – making San Juan County extremely susceptible to drought.

Drought will also have economic impacts on the region's agricultural sector and food supply as dependability of precipitation and available water in watersheds is reduced. This is not a hypothetical – the Washington State Department of Agriculture released the Climate Resilience Plan for Washington Agriculture in March of 2025, which found that extreme heat, drought, and wildfire/wildfire smoke were the top three climate-related issues that have already been affecting farmers over the last five years[7].

Washington state reported 1,806 wildfires in the 2024 fire season, 210 more than the 10-year average.

With warmer temperatures and less precipitation, the region's forests will become drier and more susceptible to wildfire. The Northwest Interagency Coordination Center (NWCC) is responsible for interagency resource coordination and logistics for wildfire response in Washington and Oregon, and releases annual fire reports summarizing that year's wildfire season, as well as historical data. Their Northwest Annual Fire Report 2024 found that the 2024 wildfire season, which saw abnormally hot and dry conditions, burned 190% more acreage than the preceding 10-year average[8].

[5] https://www.drought.gov/what-is-drought/drought/basics

[6] https://www.sanjuancountywa.gov/DocumentCenter/View/27605/Section-B_Ele_4_Water_Resources_12-12-2022_CLEAN

[7] https://agr.wa.gov/washington-agriculture/climate-resilience-plan-for-washington-agriculture

[8] https://gacc.nifc.gov/nwcc/admin/publications.aspx

Smoke from the Sourdough Fire hangs over Diablo Lake in Whatcom County, August 2023

Mitigation Efforts

While rising sea levels and changes in heat, precipitation and other weather patterns are unavoidable, there are efforts in place to adapt to and mitigate these challenges. The following are a small list of regional responses to long-term climate impacts.

Downtown Mount Vernon Flood Protection and Revitalization Project

At the time the Downtown Mount Vernon Flood Protection and Revitalization Project was proposed, downtown Mount Vernon sat in FEMA's 100-year flood plain elevation, meaning if the Skagit River experienced 100-year flood levels the downtown area would be inundated with floodwater. The project, completed in 2018, created a public park, walking trail, and flood wall along 1.75 miles of the Skagit River. The project also qualified the downtown Mount Vernon area to be removed from FEMA's 100-year floodplain maps, as well as qualifying for adjustments to FEMA's Flood Insurance Rate Map.

The floodwall would be tested in December 2025 when the Skagit River crested at a record-breaking 37.7 ft, 7.7 feet over major flood stage. The wall held, and downtown

Mount Vernon was not subjected to damage from the flood that impacted so much of Whatcom, Skagit, and Snohomish Counties.

Hamilton Relocation Project

The town of Hamilton along the Skagit River in Skagit County has a documented history of regular flooding going back to the 1800s. In 2006 the Hamilton Public Development Authority was created, which seeks to "develop and implement a permanent flood mitigation solution that restores the Town of Hamilton as a viable and desirable municipality in and around which to live and work, reduces repetitive losses from flood-prone areas of Skagit County, and enhances our riparian natural resources".

In 2008 Skagit County approved an expansion of Hamilton's Urban Growth Area (UGA) with the long-term goal of relocating the entire town out of the Skagit River floodplain[9]. In 2018 the Town of Hamilton partnered with non-profit group Forterra to begin purchasing land in the expanded UGA for development and to coordinate buyouts of vulnerable properties in the current town limits through a Department of Ecology Floodplains by Design grant[10].

Comprehensive Planning

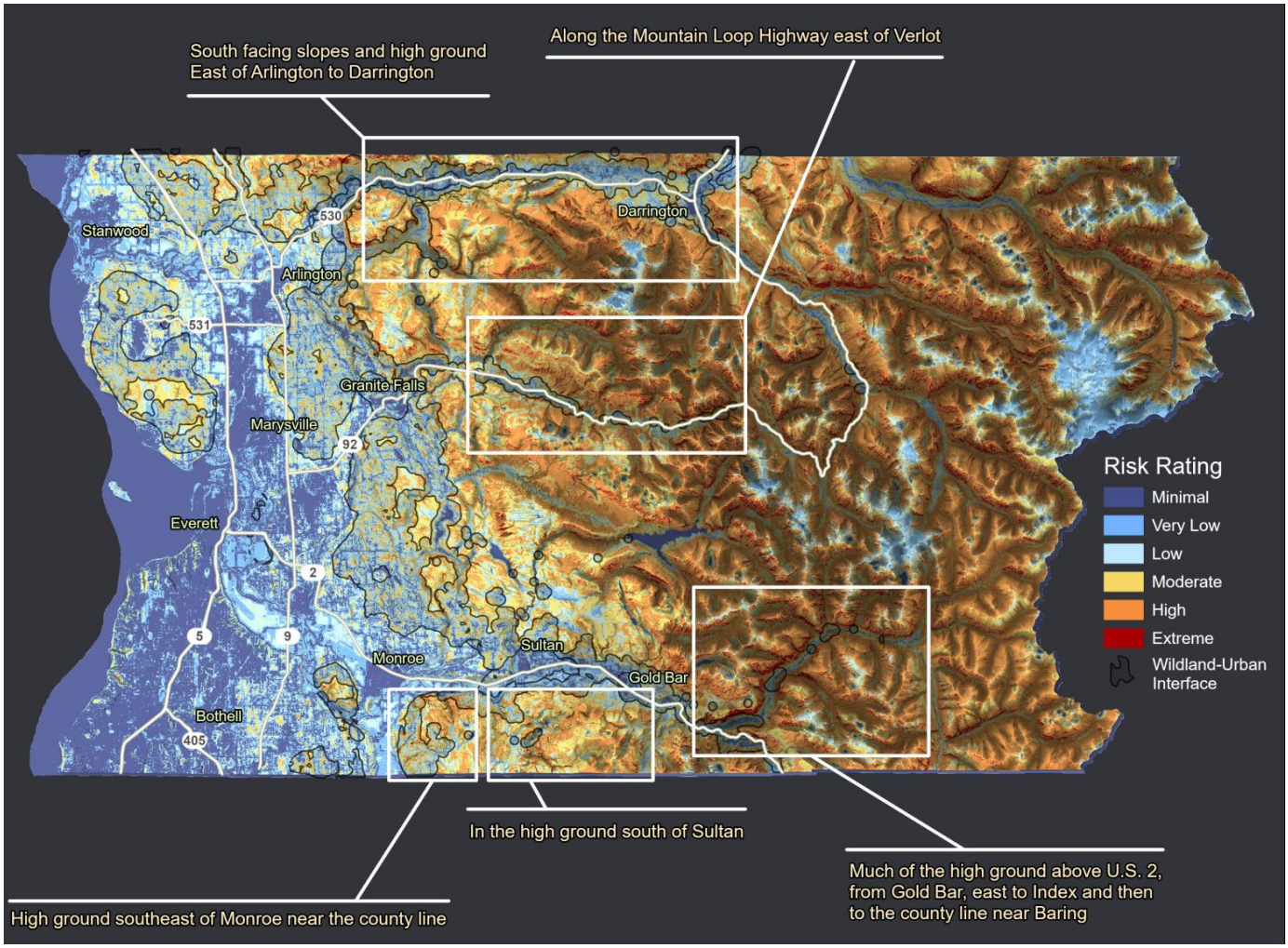
All counties and municipalities in Washington are required to complete updates to their Comprehensive Plans every five years under Washington State's Growth Management Act (GMA). In 2023 the state legislature added requirements for future updates to Comprehensive Plans to include a climate element, to "maximize economic, environmental, and social co-benefits and prioritize environmental justice in order to avoid worsening environmental health disparities"[11]. Snohomish County completed its Comprehensive Plan periodic update in December 2024, and Island, San Juan, Skagit, and Whatcom Counties were slated to complete their periodic updates in December 2025.

The North Sound region's Comprehensive Plans focus on a variety of topics, including reduction greenhouse gas emissions, forestry practices, zoning and land use, and resiliency strategies to respond to drought and sea level rise. All of the recent updates to the region's Comprehensive Plans are the first to include a climate element since the additional requirement was added to the GMA.

[9] https://www.skagitcounty.net/departments/planningandpermit/hamiltonmain.htm
[10] https://forterra.org/projects/hamilton/
[11] https://www.commerce.wa.gov/growth-management/climate-planning/

Snohomish County Community Wildfire Protection Plan

Snohomish County's Department of Emergency Management created a plan approved in November 2025, that would identify areas at risk for wildland fire, outline recommendations for forest health restoration projects, prioritize areas for wildfire mitigation funding, empower residents and leaders to reduce fire risk and adapt to wildfire, and encourage conversations about the critical role people can play in wildfire prevention[12].



Wildfire Risk in Snohomish County
Source: Snohomish County Department of Emergency Management

[12] https://www.snohomishcountywa.gov/4113/Community-Wildfire-Protection-Plan

Food Insecurity & Access

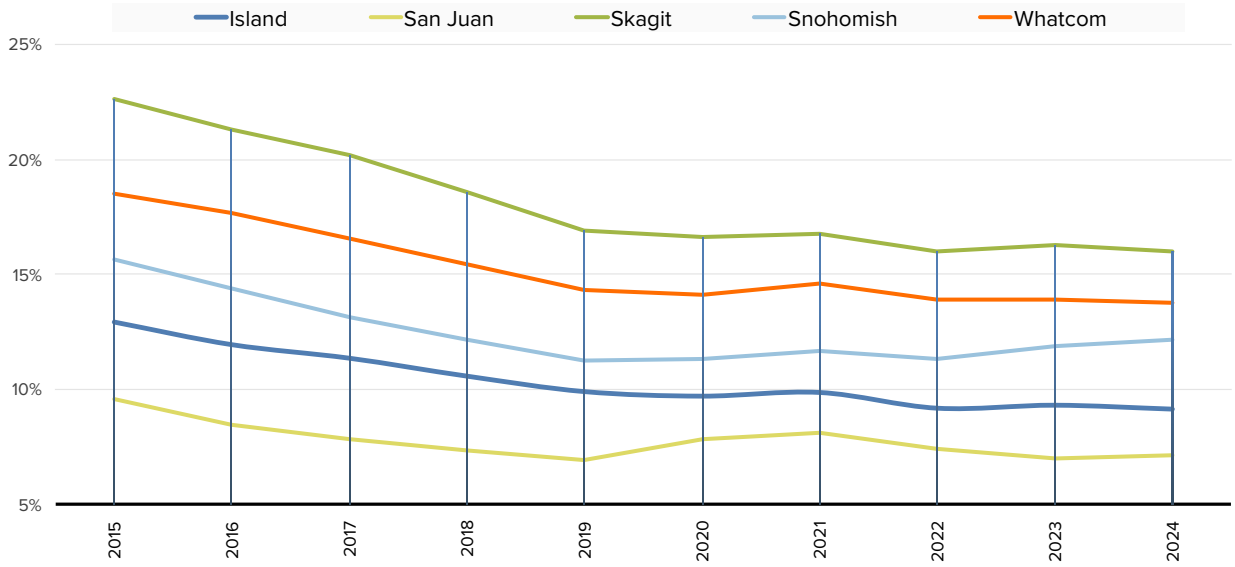
"Food insecurity can lead to increased chronic disease risk, as well as long-term cognitive deficits in children and mental health challenges, including greater stress, anxiety and depression"

- Dr. Jennifer Otten
University of Washington Department of Environmental and Occupational Health Sciences

Food Insecurity

The Supplemental Nutrition Assistance Program (SNAP), also called Basic Food in Washington State, provides a cash benefit to eligible households for food purchasing. While the percentage of the population of each county utilizing Basic Food has decreased over the last 10 years, the counties that tend to have more or less utilization have remained consistent[13]. In 2024 Skagit and Whatcom counties had the highest percentages of their populations utilizing Basic Food, 16% in Skagit County and 14% in Whatcom County. San Juan County has historically had the lowest percentage of its population that has utilized Basic Food, staying below 10% over the last 10 years.

Percentage of Population Utilizing Basic Food in the North Sound Region



Source: Washington Department of Social and Health Services

[13] https://clientdata.rda.dshs.wa.gov

Low-Income

The census tract's poverty rate is 20% or greater; or

The census tract's median family income is less than or equal to 80% of the state's median family income; or

The census tract is in a metropolitan area and has a median family income less than or equal to 80% of the metropolitan area's median family income.

Low-Access

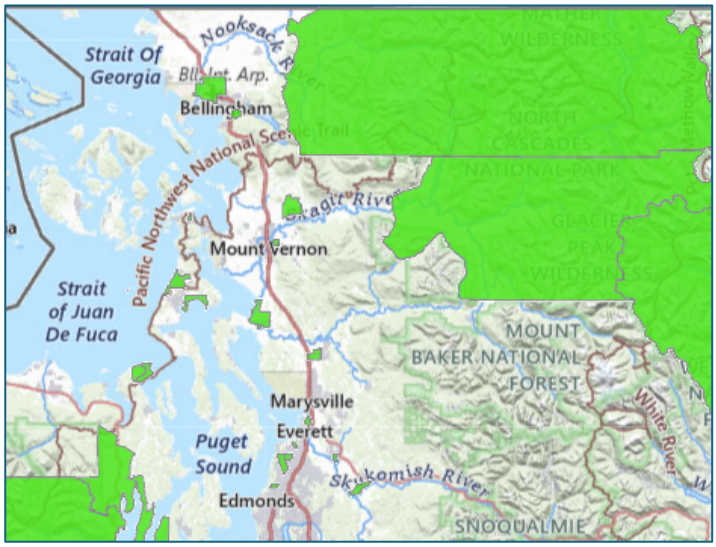
LA at 1 mile and 10 miles: a significant number of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest food store; or

LA at 0.5 miles and 10 miles: a significant number of residents is more that 0.5 miles (urban) or 10 miles (rural) from the nearest food store; or

LA at 1 mile and 20 miles: a significant number of residents is more than 1 mile (urban) or 20 miles (rural) from the nearest food store; or

LA using vehicle access: more than 100 housing units do not have a vehicle and are more than 0.5 miles from the nearest food store, or a significant number of residents are more than 20 miles from the nearest food store.

The United States Department of Agriculture's Economic Research Service uses a combination of data about income and access to food stores to identify food deserts, described as census tracts that are Low-Income Low-Access (LILA). The North Sound region has 237 census tracts across the five counties; of those, 18 (7%) are considered low-income low-access at 1 and 10 miles. These tracts include much of eastern Whatcom and Skagit counties, as well as sections of Bellingham, Oak Harbor, Anacortes, Sedro-Woolley, Mount Vernon, Stanwood, Everett, Snohomish, Mukilteo, and Monroe[14].

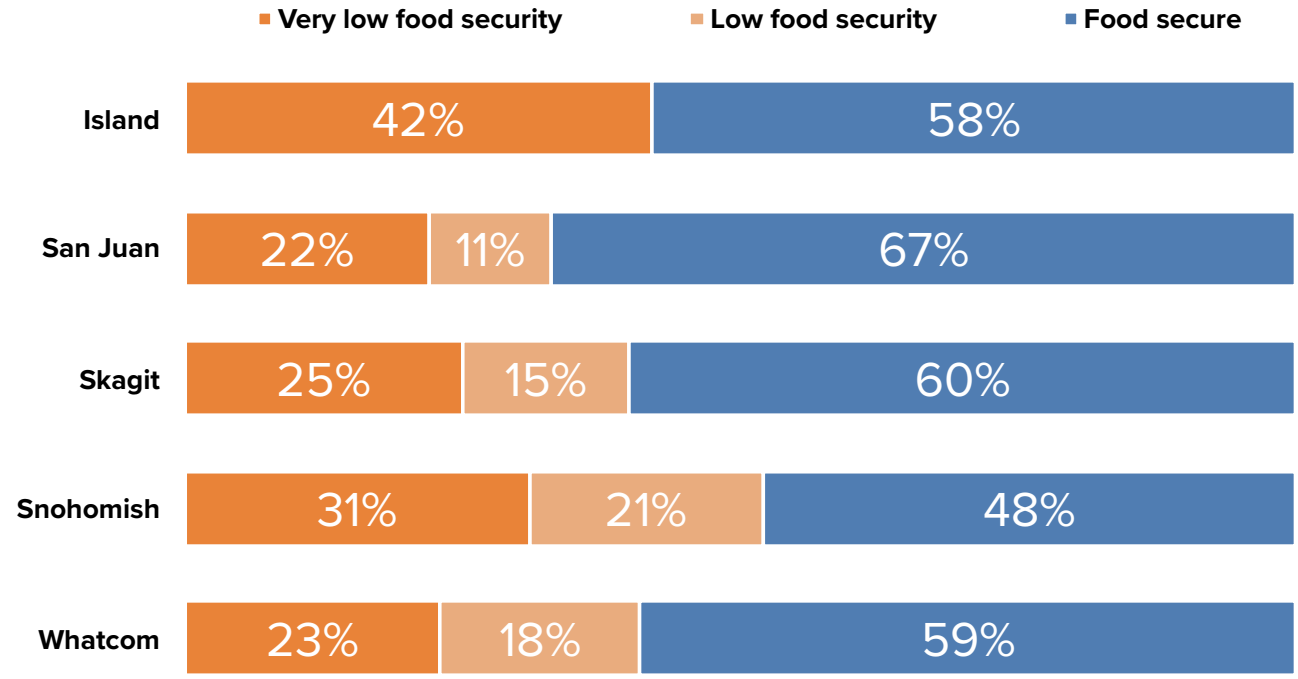


Highlighted low-income low-access census tracts at 1 (urban) and 10 (rural) miles

Source: United States Department of Agriculture Food Access Research Atlas

[14] https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas

Food Insecurity Across North Sound Counties



Source: University of Washington Center for Public Health Nutrition

Despite lower instances of food deserts in Island County, a survey of Washington residents by the University of Washington's Department of Epidemiology in 2024 found that Island County had the highest instances of "very low" food security in the region, and the fifth highest in the state, while residents of Snohomish County experienced the highest levels of food insecurity overall in the North Sound region[15].

Climate Impacts

Food insecurity in the North Sound region can be exacerbated by climate change in a variety of ways. Flooding, wildfire, and sea level rise have the potential to impact transportation lanes in the short and long-term, making it more difficult to get food to already distressed areas. Negative impacts to farmland due to drought and other changing conditions, both in the North Sound region and beyond, could raise food prices as production is weakened due to limited water supplies. Other negative impacts, according to the Washington State Department of Agriculture's 2025 Climate Resilience Plan for Washington Agriculture include changes to crops that are suitable for the climate, ocean acidification impacting aquaculture, and increased risks to the agricultural workforce due to heat and other adverse conditions[16].

[15] https://epi.washington.edu/news/new-washington-state-food-security-survey-shows-high-food-insecurity-with-grocery-prices-a-top-concern/
[16] https://agr.wa.gov/washington-agriculture/climate-resilience-plan-for-washington-agriculture

Housing & Displacement

"Where you live also affects your vulnerability to heat. Urban areas with lots of asphalt and concrete and few trees – known as urban heat islands – can dramatically increase heat exposure for people outside and in buildings without AC"

- *University of Washington Climate Impacts Group*
  In the Hot Seat: Saving Lives from Extreme Heat in Washington State

A person's housing status can exacerbate impacts from climate change - individuals who are unstably housed or unsheltered are more vulnerable to the effects of flooding, smoke, and heat, while those with limited incomes may not be able to adapt their living situation to negative climate impacts. This section will briefly explore housing in the North Sound region, and the interplay between climate and housing challenges.

Housing Instability and Homelessness

Housing instability and homelessness in the North Sound region has remained relatively consistent over the last few years. According to Washington State Department of Commerce's "Snapshot Report", which combines data from multiple state data systems to provide a comprehensive count of those homeless or experiencing housing instability in Washington State, the region's population of those homeless or unstably housed shrank by about 400 from 27,843 in January 2023, to 27,434 in January 2025. Comparatively, the statewide count grew from 195,497 to 201,809 in that same period of time[17].

Percent change in the population of those homeless and unstably housed from January 2023 to January 2025:

North Sound Region
-1.5%

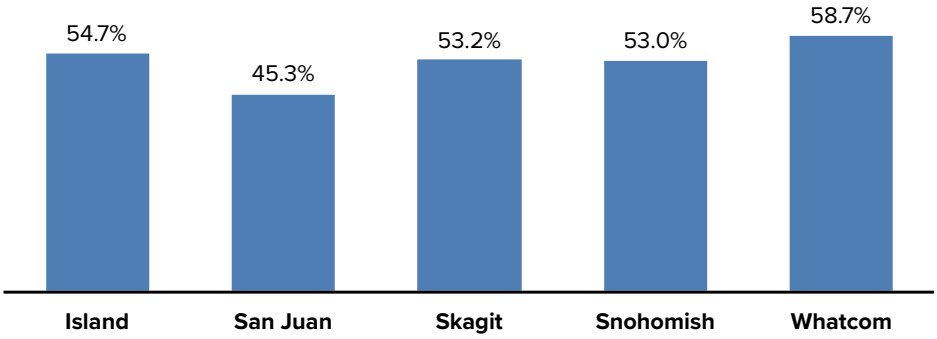
Washington State
+3.2%

[17] https://www.commerce.wa.gov/housing-data/reports-and-publications/

Renting

A household is considered *cost-burdened* if they have to spend more than 30% of their income on housing costs. According to the United States Census Bureau's American Community Survey 2023 Five Year Estimates, over 50% of renters in Island, Skagit, Snohomish, and Whatcom counties are cost-burdened, with 45.3% of renters in San Juan County being identified as cost-burdened.

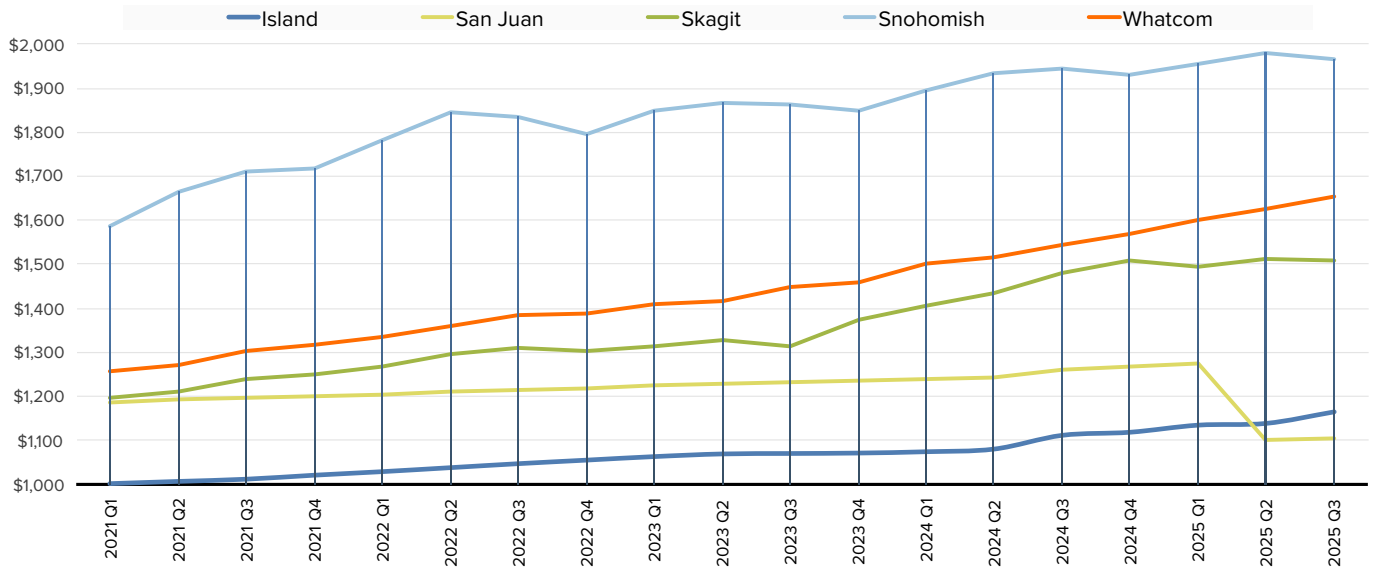
Percentage of North Sound Renters Cost-Burdened



Source: United States Census Bureau – 2023 American Community Survey Five Year Estimates

Average rents in the North Sound region have also increased steadily over time. Snohomish County has consistently had the highest average rents in the region, ending the third quarter of 2025 with an average rent of $1,965[18]. Island County's rents have generally been the lowest in the region, though average rents in San Juan County dipped in Q2 of 2025 and ended Q3 at $1,106.

Average Rents in the North Sound Region



Source: University of Washington Center for Real Estate Research – Housing Market Data

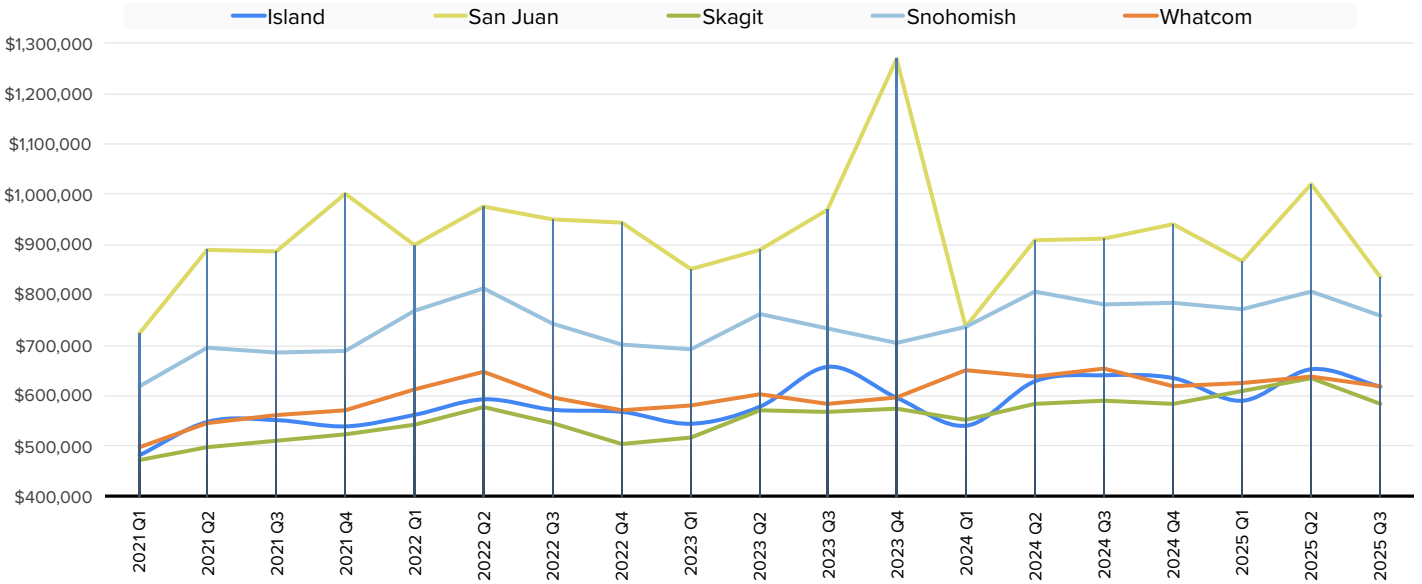
[18] https://wcrer.be.uw.edu/dashboards/county-dashboards/

Homeownership

Like rental prices, home purchase prices in the North Sound region have also been on a steady rise over the last few years. San Juan County consistently sees higher median home prices than the other North Sound counties; since 2021 the highest median home price in San Juan County was over $1,200,000 dollars. Island, Skagit, and Whatcom counties have also seen rising home prices, starting 2021 at or around a median home price of $500,000 and ending Q3 of 2025 closer to $600,000[19].

On average, the North Sound Region's median home price has risen $124,540 since 2021.

Median Home Prices in the North Sound Region



Source: University of Washington Center for Real Estate Research – Housing Market Data

Climate Impacts

The impacts that climate change will have on the region's housing is difficult to quantify, but some observations can be made. Many areas of the region where housing is more affordable, especially rural areas, are more vulnerable to climate impacts including wildfire and flooding. As residents are priced out of areas more insulated from climate impacts, they will become more vulnerable to climate change in the long-term.

[19] https://wcrer.be.uw.edu/dashboards/county-dashboards/

Pollution & Industrial Impacts

"The Upper Skagit Tribe wants the river restored to the Indigenous landscape, and until the dams are removed, the issue will be out there."

- *Upper Skagit Tribal member Scott Schuyler in an interview with The Margin for the article "A River of Deception"*

The natural resources in the North Sound region have a long and complex relationship with the people who live here. For many thousands of years before the first European settlers came to the area, the native Coast Salish tribes relied on and cohabitated with camas, salmon, cedar and many other native plant and animal species. Old-growth forests helped mitigate floodwaters by slowing and holding the water moving across the land, and salmon runs were abundant and provided food and nutrients for other native animals and soil.

After a few hundred years of industrialization, the situation is much different. Oil refineries operate in Skagit and Whatcom counties, Seattle City Light operates three dams impassible to salmon - Ross, Diablo, and Gorge, on the Skagit River, and the Port of Everett operates the third largest container port in the state.

This section will cover the effects of pollution and industry on the lands, shorelines, and ecosystems of the North Sound region, from industrial logging and fuel refining to Superfund Sites.

Air Quality

As previously mentioned, changing climate will create more conditions for wildfires throughout the North Sound region. While increased wildfires will result in more acute damage to property and people, an increase in wildfires will also lead to more long-term effects. According to the Washington State Department of Ecology, wildfire smoke is already the largest source of particle pollution in the state[20]. As particle pollution enters the lungs it can cause minor issues such as coughing or wheezing, or with longer

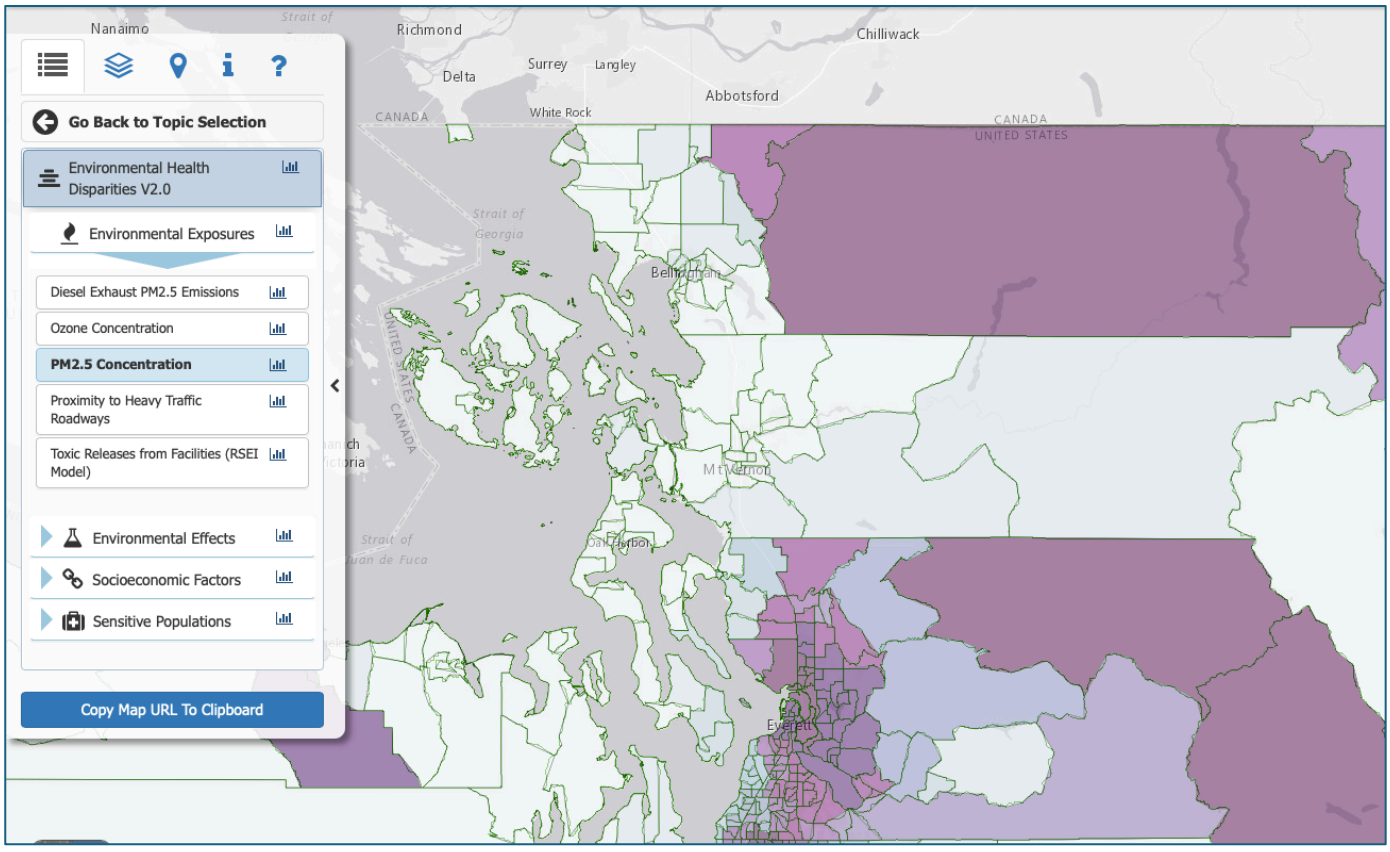
[20] https://ecology.wa.gov/air-climate/air-quality/smoke-fire/wildfire-smoke?

exposure can create long-term heart and lung issues[21]. Particle pollution does not just come from wildfire – industrial activity, vehicles, and construction, among other activities, all contribute to particle pollution in the North Sound region.

Particle Pollution:

A general term for a mixture of solid or liquid droplets suspended in the air

Particulate pollution that is 2.5 micrometers (µm) or smaller, also known as fine particle pollution or PM2.5, is some of the most dangerous particulate pollution as it can more easily enter the lungs through the nose or throat. This category of particulate pollution is commonly emitted from vehicles, smoke, and industrial activity[22]. The Washington State Department of Health's Washington Tracking Network tracks PM2.5 concentration throughout the state – in the North Sound region, the eastern portions of Whatcom and Snohomish counties, as well as the areas surrounding the city of Everett, ranked highest for risk of PM2.5 exposure.



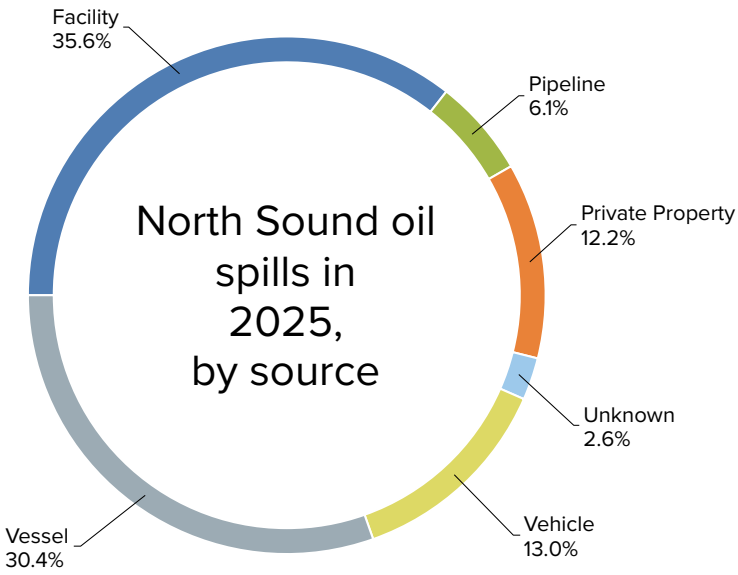
Source: Washington State Department of Health – Washington Tracking Network

[21] https://www.epa.gov/pm-pollution/particulate-matter-pm-basics

[22] https://www.epa.gov/pm-pollution/particulate-matter-pm-basics

Water Impacts

The Washington State Department of Ecology takes reports of oil and hazardous material spills throughout the state, as well as coordinates response and cleanup efforts. In 2025 Ecology received reports of 75 spills in the North Sound region, resulting in a total of 2,582.56 gallons of oil and hazardous material entering the region's waterways. About two-thirds of the reported spill either came from facilities (construction sites, shipyards, power stations, etc.), or from commercial and personal watercraft[23].



Source: Washington State Dept. of Ecology

There are six dams on rivers in the North Sound region: the Lower Baker Dam (Skagit Co.) and Upper Baker Dam (Whatcom Co.) on the Baker River, Diablo, Gorge, and Ross Dams (Whatcom Co.) on the Skagit River, and the Culmback Dam (Snohomish Co.) on the Sultan River. With the exception of the Culmback Dam, which is used to supply drinking water, all of the dams are used to generate hydroelectric power for the region. All of the region's dams were built between the 1920s and 1960s, and all resulted in drastically reduced salmon populations as salmon were not able to return to their spawning grounds. However, there have been ongoing efforts to revitalize salmon populations. On the Baker River, the dams had so depleted salmon populations that in the mid-80s there were only 99 fish returning to the river to spawn. Through collaboration with Washington Department of Fish and Wildlife, the Upper Skagit Indian Tribe, the Swinomish Indian Tribal Community, and Puget Sound Energy, hatcheries, artificial spawning beds, and capture/release to and from Baker Lake and Puget Sound has resulted in over 91,880 sockeye salmon returning to the river in 2025[24]. Similar efforts were taken to restore populations in the Sultan River, with Snohomish County PUD implementing fish passages, habitat restoration, and water temperature controls to support salmon populations[25]. Diablo, Gorge, and Ross dams were not built with, or have ever added infrastructure to allow salmon passage further up the Skagit River – however the dams are currently negotiating their 50-year relicensing and in December 2025 reached a tentative agreement with the Upper Skagit Tribe, Sauk-Suiattle Tribe, Swinomish Indian Tribal Community, and various state and regional agencies to include fish passage and salmon restoration in the new 50-year operating license[26].

[23] https://ecology.wa.gov/spills-cleanup/spills
[24] https://wdfw.wa.gov/fishing/reports/counts/baker-river
[25] https://www.snopud.com/community-environment/environmental-commitment/stewardship/jackson-fish-program/water-temperature-conditioning-project/
[26] https://www.seattle.gov/city-light/in-the-community/current-projects/skagit-relicensing#2025

Superfund Sites in the North Sound Region

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), which was established in 1980, created what is commonly known as the Superfund program[27]. A Superfund site is a site (often related to heavy industry) that poses a threat to human health and the environment due to improperly or illegally disposed of hazardous waste or other contaminants. Superfund legally requires the responsible party to mitigate contaminated sites, or if the responsible party is unable, allows the Environmental Protection Agency (EPA) to clean up the site.

There are seven current or former Superfund sites in the North Sound region, though only two are currently active sites. The Island and Whatcom County sites are in cycles of Five-Year Reviews, which monitor the areas after remediation to ensure that people's health and the environment are continuing to be protected, while the Tulalip site is being addressed through a non-National Priority List (non-NPL) process called the Superfund Alternative Approach. This alternative approach engages the potentially responsible parties in the clean-up process, while avoiding listing of the site on Superfund's National Priority List.

Boeing Company Tulalip Test Site

The Boeing Company Tulalip Test Site is located on the Tulalip Reservation, and was used as a testing ground for rocket and aerospace parts by Boeing from 1954 – 1999. Groundwater and soil has been contaminated by hazardous chemicals, with groundwater contamination moving underneath I-5 toward the West Fork of Quilceda Creek[28]. While initially assessed in 1985, a remedial investigation of this site was started in 2010 with remedial action slated to begin sometime in 2028.

Current Superfund Sites:

Island County

- Naval Air Station, Whidbey Island (Ault Field)

Whatcom County

- Oeser Co.

Superfund Alternative Sites:

Snohomish County

- Boeing Company Tulalip Test Site

Former Superfund Sites:

Island County

- Naval Air Station, Whidbey Island (Seaplane Base)

Snohomish County

- Tulalip Landfill

Whatcom County

- Northwest Transformer
- Northwest Transformer (South Harkness St)

[27] https://www.epa.gov/superfund/what-superfund

[28] https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=1000818#bkground

Naval Air Station, Whidbey Island (Ault Field)

Naval Air Station Whidbey Island was commissioned in 1942 and has been used for seaplane operations, rocket firing training, torpedo overhaul, and Navy recruit and officer training – its current use is to maintain and operate Navy aircraft and aviation facilities[29]. In the course of these activities the site's soil, sediments, and groundwater have been contaminated. Remediation work began in 1990.

The site's sixth Five-Year Review was completed in 2024, and the site continues to meet its cleanup goals.

Oeser Co.

This site was opened in 1943 as a wood treatment plant near Little Squalicum Creek in Bellingham. The primary treatment method used from 1943 to 1983 was creosote, a coal-tar which can cause cancer as well as neurological and respiratory issues[30]. The wood treatment process resulted in groundwater and soil contamination in and around the site, causing a risk to wildlife and nearby residents.

The Oeser Co. site was added to the National Priority List in 1997 and mitigation work began in 1998, with the Five-Year Review process beginning in 2011. Per the EPA the site remediation continues to be protective of human health and the environment in the short term, though contaminants remain on site and planning and controls are required to ensure long-term protectiveness[31]. The area is currently mixed-use industrial and residential, and contains Little Squalicum Park.

[29] https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=1001122#bkground

[30] https://wwwn.cdc.gov/tsp/substances/toxsubstance.aspx?toxid=18

[31] https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=1000590#bkground

Regional Coordination

Coordination on environmental justice exists from the community and grassroots level all the way up to the state level in the North Sound region. However, more work could be done to create a robust regional network of coordination and action on environmental justice in the North Sound. The following section will give a brief overview of where environmental justice coordination exists, and where it doesn't.

State Level

The Healthy Environment for All Act (HEAL Act), a piece of Washington State legislation passed in 2021, created a coordinated approach among the Washington State Departments of Health, Agriculture, Commerce, Ecology, Natural Resources, and Transportation, as well as the Puget Sound Partnership (a state agency leading Puget Sound restoration efforts). The goal of the legislation was to incorporate environmental justice into the work of all of the covered agencies, promote equitable investment in overburdened communities, provide a platform for communities disproportionately affected by environmental justice issues, and to support ongoing evaluation of environmental justice in the state[32]. The HEAL Act also convened an Environmental Justice Council made up of community and tribal representatives, which provides recommendations to the state on topics of environmental justice and provides a platform for impacted communities to speak out.

Regional Level

The Washington State Association of Counties (WSAC) is an organization whose members consist of elected county commissioners, councilmembers, and executives from all of Washington's counties[33]. One of its functions is advocacy – creating a unified voice for counties to establish legislative priorities at the state level. WSAC's 2025-2026 legislative priorities, while including some areas that overlap with environmental justice (mainly housing and transportation), environmental justice concerns are not noted as issues or prioritized in the identification of challenges and solutions[34].

[32] https://doh.wa.gov/community-and-environment/health-equity/environmental-justice
[33] https://wsac.org/about-us/
[34] https://wsac.org/advocacy/

A regional partnership between San Juan, Whatcom, Island, Snohomish, and Skagit counties (SWISS) also exists as an affiliate partnership of WSAC, providing a regional voice that overlaps with the North Sound region. SWISS's last regional priority publication was for the 2022-2023 legislative session, and focused on behavioral health, broadband, and multimodal transportation[35]. Transportation priorities include expanding infrastructure for alternative-fuel and electric vehicles, which would help reduce particulate pollution as a result of vehicle exhaust.

Tribal Nations

Every tribe in the North Sound region has their own version of a climate change adaptation plan, examining the potential impacts of climate change on the tribe's resources, people, and ways of life. Many of the region's tribes put these plans together in the 2010s and onward – far ahead of when additions to the Washington State Growth Management Act required local Comprehensive Plans to begin including climate elements. The region's tribes have also been on the forefront of advocacy around environmental justice issues.

Local and Grassroots

The North Sound region is full of local and grassroots organizations that perform all levels of advocacy, education, and action on environmental justice issues. However, a framework for regional action and coordination is lacking in the North Sound. Front and Centered, an environmental justice organization based in King County, has built a coalition of organizations share funding opportunities and resources, technical assistance, legislative briefings, and more – only a few Whatcom and Snohomish county organizations are represented here, and none from Island, San Juan, or Skagit counties.

[35] https://wsac.org/swiss/

Conclusion

Impacted Communities

Whether considering the long-term effects of climate change or the immediate effects of particulate pollution or spills from industrial sources, some communities are more impacted than others. This final section will provide a brief glimpse at those who are disproportionately affected by climate change and other environmental justice issues, as well as areas where there is fertile ground for future work.

Tribes

Tribal Nations in the North Sound region have historically seen significant impacts on issues around environmental justice and stand to bear disproportionate impact from climate change and other environmental justice issues in the future.

The Treaty of Point Elliot, signed in 1855, guaranteed the rights of tribes to continue harvesting the plants and wildlife that sustained their culture[36]. With increasing temperatures and reduced snowpack threatening to create water shortages in the region's salmon habitats, drought and wildfire threatening forests, and coastal inundation threatening reservation land and traditional cultural grounds, the region's tribes face the same pressures and impacts the rest of the region's population faces - with the addition of an existential threat to their traditional ways of life.

Rural Communities

Rural communities also stand to face larger impacts than other areas of the region. Many smaller communities in the eastern parts of Snohomish, Skagit, and Whatcom counties are more vulnerable to wildfire and air pollution, while in the western parts of those counties small communities are at the front lines of sea level rise and coastal inundation. Rural communities in the North Sound region also tend to experience higher levels of poverty, meaning the residents have less financial ability to respond to climate challenges.

[36] https://nr.tulaliptribes.com/Topics/LandBasedTreatyRights

Black, Indigenous, and People of Color

Due to historic inequities, Black, Indigenous and People of Color (BIPOC) communities have a wider exposure to environmental justice issues. Demographically, BIPOC individuals are more likely to experience homelessness, poverty, and poorer health outcomes in the North Sound region and throughout the state. These social and health disparities can exacerbate the individual effects of climate change, leaving households more vulnerable to heat, smoke, and displacement.

Future Work

In any future environmental justice work, it will be important to center the voices of communities that have historically not been represented and stand to lose the most from climate change. Identifying ways to lift up their voices and ensure that climate solutions are co-created, not mandated, will create the long-term conditions for climate justice in the North Sound region.

Sunset over Samish Bay, Skagit County

Resources

This page provides a few resources to begin researching climate change and environmental justice impacts in your area.

National Oceanic and Atmospheric Administration

Climate Planning for Resilience and Adaptation
https://resilience.climate.gov/pages/get-started

Coastal Flood Exposure Mapper
https://coast.noaa.gov/digitalcoast/tools/flood-exposure.html

Washington State Department of Ecology:

Responding to Climate Change
https://ecology.wa.gov/air-climate/responding-to-climate-change

Washington State Department of Health:

Washington Tracking Network – A Source for Environmental Public Health Data
https://fortress.wa.gov/doh/wtnibl/WTNIBL/