

Climate Planning Studio: Deliverable #2
Phase B

May 19, 2023

University of Washington Master of Urban Planning Students

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Prepared for the City of Snohomish

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Deliverable 5: Climate Change Regulatory Framework for the City of Snohomish

To: City of Snohomish

From: University of Washington Climate Planning Studio

Re: Climate Change Regulatory Framework for the City of Snohomish

Date: May 19th, 2023

Objective

The purpose of this memo is to review climate adaptation and mitigation regulations and goals at the state, regional, and county levels. The policies are analyzed within key sectors to frame the policy recommendations for the City of Snohomish (hereafter the City) and identify ways in which the City can contribute to or align with the broader goals of the state, region, and county.

Background

The University of Washington Climate Planning Studio reviewed 11 climate change policies: five policies from Washington State, two policies from the Puget Sound region, and four policies from Snohomish County (please reference the Methodology section for the specific policies and plans we reviewed).

The University of Washington Climate Impacts Group's *Climate Mapping for a Resilient Washington* webtool (Raymond and Rogers 2022) and the Washington State Department of Commerce's Draft Model Climate Element (Department of Commerce 2023) both identify 11 sectors for addressing climate change: Agriculture & Food; Buildings & Energy; Cultural Resources & Practices; Economic Development; Ecosystems; Health & Well-being, Transportation (roads, bridges, multimodal); Waste Management; Water Resources; and Zoning & Development. We categorized the relevant goals from each climate policy or plan under these sectors. We added Greenhouse Gas (GHG) Emissions Reductions and Cross-Jurisdictional / Regional Collaborations as additional categories to better encompass the breadth of goals and regulations and identified if goals were mitigation or adaptation strategies.

We identified the following sectors to be the most impactful for the City: Emergency Management, Greenhouse Gas (GHG) Emissions Reductions, Buildings & Energy, Ecosystems, Health & Well-being, Transportation, Water Resources, Cultural Resources & Practices, and Economic Development. *Appendix A: Regulation Summaries* contains the complete analysis of each of the eleven policies.

Emergency Management

The HMP is perhaps the most relevant policy out of all those reviewed for preparing the City for natural disasters climate change will cause or exacerbate. The County is responsible for protecting the health, safety, and welfare of the community by reducing risks associated with natural hazards. The plan includes goals related to protecting life, property, and infrastructure against hazards such as flooding, earthquakes, landslides, fires, and other natural and anthropogenic disasters and threats. Strategies to attain these goals include retrofitting, floodproofing, emergency preparedness programs, regional coordination, and building resilient communities. The City is required to prepare an annex to the County's HMP to include more specific hazard risk assessment and mitigation strategies. The City's most recent (2015) annex to the HMP includes initiatives to retrofit and floodproof at-risk structures and infrastructure, stabilize slopes, build redundancy into key infrastructure, build resilience into vulnerable areas, educate the public, and coordinate with other agencies and jurisdictions. The County Comprehensive Plan and the PSRC mention the importance of improving the County's preparedness to respond and adapt to climate change, as well as designating and protecting areas that are prone to flooding and geologic hazards.

Washington State's Senate Bill 5126 (SB 5126) created the Natural Climate Solutions Account to invest in natural projects that increase the resilience of the state's ecosystems, including reducing flood risk and incorporating green stormwater infrastructure. The Puget Sound Clean Air Agency (PSCAA) provides the region with access to up-to-date air quality monitoring and advice to reduce risk during high smoke/pollution days. The City can utilize these resources to achieve their goals.

Greenhouse Gas Emissions (GHG) Reductions

The City could consider existing state and regional policies to inspire decarbonization work, avoid fines and avoid the cost of building new power plants. The recent Washington State House Bill 1181 (HB 1181) declares that cities of at least 6,000 in population – in counties west of the Cascades with at least 130,000 in population – must respond to climate change in their comprehensive plan by preparing a GHG reductions subelement. SB 5126 aims to reduce carbon emissions from various sectors, particularly in communities that face disproportionate impacts from GHG emissions. The bill also introduces a cap and invest program, a Climate Investment Account, and a Carbon Emissions Reduction Account. Senate Bill 5116 (SB 5116) transitions electric utilities from coal-fired electricity to carbon-free electricity generation by 2045, with an emphasis on utilities that serve over 25,000 people.

House Bill 2311 (HB 2311) establishes goals for the state and state agencies to reduce GHG emissions ultimately achieving net zero GHG emissions by 2050. PSRC recommends reducing emissions of GHG to 50% below 1990 levels by 2030 and 80% below 1990 levels by 2050. A key component of their strategy is the Regional Transportation Plan which includes four elements: land use, user fees, transportation choices, and technology. The Snohomish County SOAP (hereafter referred to as the SOAP) prioritizes reducing the County's transportation-caused greenhouse gas emissions, incorporating energy efficiency, and using renewable energy technology. The PSCAA focuses on educating the public about reducing outdoor burning and wood heating to reduce carbon emissions. These governmental operations provide a comprehensive approach to reducing GHG emissions.

Buildings & Energy

Several agencies provide policies for transitioning to cleaner energy sources and strengthening building infrastructure as a way to reduce emissions and foster healthier communities. In particular, the PSRC and the HMP recommend energy conservation, energy management, and the development of alternative energy sources. The building sector (one of the largest sources of GHG emissions within the City) can implement these recommendations by retrofitting existing buildings and green building practices (per policies from the PSRC, the HMP, and the SOAP). Snohomish can reduce energy consumption, GHGs emissions, and prevent the need to build new power plants through these recommendations. This supports SB 5116 which requires utilities that serve more than 25,000 customers to develop resource plans to transition to 100% renewable energy by 2045.

Additionally, focusing on buildings will help the City become more resilient to climate change, namely climate disasters. The PSRC recommends that new buildings (including public services, facilities, and infrastructure) consider climate change implications when siting. The PSRC and the HMP, recommend preparing buildings for disasters that may occur, such as flooding and landslides, as well as recovery plans. These plans may be financially supported by SB 5126, which creates the Climate Commitment Account to invest in the electrification of new residential and commercial buildings.

Ecosystems

Ecological protection is a core component of the SOAP, the Shoreline Management Act (SMA), and the County Comprehensive Plan. As the City contemplates its urban tree canopy program, it should consider the County Comprehensive Plan's goal of no net loss of ecological function of the natural environment in Snohomish County through county-wide efforts to coordinate programs for environmental protection

and restoration. The Comprehensive Plan notes that non-regulatory programs such as incentives and restoration plans can improve and protect ecological functions. Additionally, the City can partner with citizens through educational programs to achieve ecosystem restoration and protection goals. The City should also note that the County Comprehensive Plan supports regulations for natural environment protection, fish and wildlife conservation areas, critical aquifer recharge areas, and shoreline protection.

PSRC recommends protecting and restoring natural systems, conserving habitat, improving water quality, and reducing air pollutants. PSRC and the HMP recommend increasing resilience by identifying and addressing the impacts of climate change and natural hazards (such as landslides, flooding, and fires) on water, land, infrastructure, health, and the economy. Such resilience can stabilize slopes and increase ecosystem resilience. PSRC recommends protecting and restoring natural resources that sequester and store carbon, such as forests, farmland, wetlands, estuaries, and urban tree canopy. Both of these policies can be paired with the Climate Investment Account, which SB 5126 created. A quarter of funds from this account will be used to create the Natural Climate Solutions Account, which invests in projects that increase the resilience of the state's waters, forests, and ecosystems.

Health & Well-Being

Several state and regional policies aim to reduce natural hazards' impacts on public health, mitigate disproportionate emissions on overburdened communities, and improve air quality. SB 5126 devotes 35-40% of funds from the Climate Investment and Carbon Emissions Reductions Accounts to reduce environmental burdens and provide benefits to vulnerable communities. The Department of Ecology will review policies and goals as they affect the health of overburdened communities every two years. The Air Quality and Health Disparities Improvement Account works to improve health disparities and improve air quality. SB 5116 offers energy assistance funds available to low-income households and the Department of Health is to study communities highly impacted by fossil fuel pollution and climate change. PSCAA focuses on public education on the dangers of smoke from wood burning and promoting cleaner energy and transportation options to protect public health from dangerous air quality. PSRC, the County Comprehensive Plan, and the HMP, all recommend increasing resilience by identifying and addressing the impacts of climate change and natural hazards on public health.

Transportation (roads, bridges, multimodal)

Transportation infrastructure is an access issue the City must prioritize. PSRC cites policies to advance the resilience of the transportation systems by incorporating redundancies, preparing for disasters and other impacts, and coordinated planning for system recovery. The HMP includes strategies to protect transportation infrastructure, such as retrofitting bridges, stabilizing slopes, reducing flood impacts, and educating the public on emergency transportation routes. The City may contemplate these resilience and adaptation policies should the Snohomish River or Pilchuck River flood and restrict access.

Transportation is also important to the City for emissions reduction goals. HB 1181 encourages the development of efficient multimodal transportation systems to reduce GHG emissions and per capita vehicle miles traveled. The PSCAA promotes technologies and best practices to reduce transportation emissions and has a program with a specific focus on access to electric vehicles for low-income residents. PSRC recommends supporting the transition to a cleaner transportation system through investments in zero-emission vehicles, low-carbon fuels, and other clean energy options; and providing infrastructure sufficient to support widespread electrification of the transportation system. The County Comprehensive Plan protects public health by reducing air pollution emissions associated with land uses and transportation. Washington's SB 5126 established a Carbon Emissions Reduction Account to reduce emissions in the transportation sector.

Water Resources

The Natural Climate Solutions Account, which Washington State created under SB 5126, invests in natural projects that increase the resilience of the state's waters, forests and ecosystems, including clean water investments, reducing flood risk and restoring the natural floodplain ecological function, and incorporating green stormwater infrastructure. The HMP includes initiatives to protect water infrastructure, such as adding redundancy to build resilience. The County Comprehensive Plan works to protect and restore the ecological function of natural watershed processes, shorelines, and water resources through supporting existing and new programs.

In compliance with the Growth Management Act requirements, the Plan works to designate and protect critical aquifer recharge, and wetland and floodplain areas. The Plan aims to protect shorelines in accordance with the SMA and to comply with the County's Phase I Municipal Stormwater Permit issued by the WA Department of Ecology. Similarly, the SMA mandates a master plan to regulate the uses of shorelines. The City's Shoreline Master Plan should include adaptation strategies to address climate change impacts, which aligns with recommendations from the PSRC.

Cultural Resources & Practices

The Cultural Resources & Practices sector stresses the importance of recognizing culturally significant ceremonies and species and understanding the ways in which these practices relate to the City's climate goals. This includes recognizing the importance of ceremonial burning to Indigenous and other cultural groups (PSCAA) and including slope stabilization goals to improve salmon habitat (the HMP).

Economic Development

Natural hazards threaten economic systems and climate technology can foster economic growth. The Economic Development element recommends protecting businesses and implementing effective zoning practices to mitigate impacts from natural hazards (PSRC, the HMP). The County Comprehensive Plan stresses the need to balance environmental protection with economic development, housing needs, and property rights. The SOAP has a goal to "implement green purchasing practices," which will both make County operations more sustainable as well as grow the green economy throughout the County. The City could adopt similar policies to promote resilient, sustainable economic growth.

Other Sectors

As the other sectors are important to note, we have summarized the key takeaways. The Agriculture & Food sector promotes resilient lifeline systems by protecting small businesses and their land use decisions. The Waste Management sector contains countywide goals to address wastewater infrastructure damage due to flooding and other disasters. The Zoning and Development sector recommends accommodating concentrated growth in urban areas near transit hubs (Puget Sound Regional Council, hereafter PSRC) in order to grow in a way that protects the natural environment (County Comprehensive Plan, hereafter the County Comprehensive Plan). In the areas already containing growth, the County recommends improving vulnerable areas and developing maps to restrict further development in flood-prone areas (Snohomish County HMP including the City's Annex to the HMP, hereafter the HMP). Cross-Jurisdictional / Regional Collaborations goals include improving regional collaboration across jurisdictions, including with Tribal nations, agencies, and non-governmental organizations, to advance resilience, adaptation, and mitigation actions (PSRC, the Snohomish County HMP, and the County Comprehensive Plan).

Key Takeaways

Common themes across the reviewed policies and plans include supporting vulnerable communities, protecting and enhancing ecosystems, transitioning to a clean energy economy, and building resilience

across infrastructure. The regulatory framework reveals how the state, regional, and county goals support the City's role in climate action. The City should look to higher levels of government for technical and financial support and cross-jurisdictional collaboration.

Deliverable 6: Snohomish Comprehensive Plan: Environmental Protection Element Gap Analysis

The Environmental Protection Element of Snohomish's comprehensive plan is a brief but important section in the plan's narrative, laying out the City's goals and policies to protect natural assets and preserve environmental health. At eight pages long, the element presents a high-level overview of Snohomish's efforts, avoiding detailed descriptions or analyses of existing challenges and policies in place. This is largely by design; comprehensive plans are not intended to be detailed policy documents, but rather to present a broad vision of a city's intentions and values with regard to planning. Seeking to understand how well the Comprehensive Plan communicates Snohomish's intentions with regard to climate mitigation and adaptation, we conducted a gap analysis of the Environmental Protection Element as well as the other sections of the Comprehensive Plan. In doing so, we are able to present a thorough assessment of the effectiveness of the Plan in presenting plans and objectives in line with the City's stated climate goals and identify gaps where the Plan can better address climate mitigation and adaptation on the local scale.

Guiding Criteria

In order to construct a helpful gap analysis of a comprehensive plan it is important to understand what an ideal plan looks like. In order to do this we used the Washington State Department of Commerce's Model Climate Elements guidance in constructing a list of desired criteria for an effective climate element. The criteria selected were chosen by independent analysis of Commerce guidance and are as follows:

- Plan has a clear vision statement and purpose
- Plans policies are supported by engagement with frontline communities
- Plan covers all potential hazards
- Plan clearly prioritizes risks to assets
- Plan has both adaptation and mitigation elements
- Plan is achievable
- Plan consists of strategies and policies that are well integrated with other areas
- Strategies and goals are supportive and not adversarial
- Goal or strategy is sufficient in addressing hazards

After our initial reading of the Environmental Protection Element we found that its length and level of detail meant that direct analysis of what was written would be insufficient to illustrate gaps or weaknesses. Additionally, the Environmental Protection Element was included voluntarily by the City of Snohomish and is not a required element of the statewide Growth Management Act or GMA. As a result, the guidance for plan objectives and items to be included is not as readily available as the GMA-mandated categories such as the Transportation or Shoreline elements. By using a guiding framework, we were able to better consider what was missing, what the Environmental Protection Element could be, and the broader processes represented within the Element. We chose to apply this analytical framework qualitatively, as each component varies to such an extent and scale that a single

range of zero to five would not be applicable for each criterion. For instance, whether the “plan is achievable” is a much broader question than whether the plan has a “clear vision statement”, which can be answered by reviewing the Plan’s introduction. Due to time constraints and the greater amount of information offered by the rest of the plan, we elected to take a more general approach to reviewing the other sections, evenly dividing the plan into three parts and each choosing one to closely read. The sections contain the following:

- Section 1: Introduction, Land Use, Housing
- Section 2: Economic Development, Environmental Protection, Shoreline, Parks
- Section 3: Transportation, Capital Facilities, Utilities

Through our analysis we were able to identify how the plan’s other components related to the goals and strategies laid out in the Environmental Protection Element and identify opportunities to address climate mitigation and adaptation in future plans. The following gap analysis identifies opportunities for improvement within the Environmental Protection Element and throughout the Comprehensive Plan, laying the groundwork for Deliverable 7, which provides a menu of policy options to support mitigation and adaptation in Snohomish.

Environmental Protection Element Gaps

Plan has a clear vision statement and purpose.

- The element does not fully support its broad mission statement
- Policy framework is broad but there are not enough goals and policies to support its stated purpose

The Element has a broad policy framework that the element does not fully satisfy. It states that the Element’s “purpose in this Comprehensive Plan is to provide a policy guide for minimizing the effects of natural hazards, protecting regulated critical areas, and generally encouraging a sustainable approach to community development.” This mission statement is not supported by the policies and does not adequately minimize natural hazards nor do they fully address the “sustainable approach to community development.”

Plan’s policies are supported by engagement with frontline communities.

- There is a lack of goals, policies, and strategies aimed at engaging communities and protecting frontline communities
- Engagement with Indigenous communities reliant on the Snohomish River is minimal

Due to our limited scope it can be difficult to fully understand the level of community engagement strategies that went into crafting the existing goals, policies, and strategies but there is limited language

regarding the importance of equity across the entirety of the comprehensive plan. The plan makes mention of indigenous communities but does not include the reliance that the Tulalip and other tribes have historically had.

Frontline communities could be directly mentioned in strategic and goal language as an equitable approach to comprehensive planning - this is critical to the plan's success.

Plan covers all potential hazards.

- Wildfire smoke not clearly addressed
- Plan is very focused on flooding to the detriment of other hazards
- No mention of increased severe heat days

The element focuses mainly on flooding and erosion to environmental resources but it does not mention other hazards that will have increasingly substantial impacts on the environment and the community more broadly in the future such as increased heat days and wildfire smoke. The Risk Assessment placed wildfire smoke and heat hazards as being potentially the most impactful hazards.

Plan clearly prioritizes risks to assets.

- Plan would benefit from listing non-environmental assets endangered by environmental degradation
- Limited reference of the broader importance of the environmental assets to other important industries

Risks to assets are narrowly defined in the risks to environmental resources of Snohomish but the risks posed to and by the environment could have far-reaching impacts likely to affect different industries and assets such as residential properties, transportation, and public health. Without mentioning these impacts the effects of the natural hazards are understated.

Plan has both adaptation and GHG mitigation elements.

- Element mostly focused on adaptation
- Strategies, goals, and policies for GHG mitigation are lacking or incomplete

The majority of the goals and policies are targeted at adaptation strategies often referred to as mitigation in reference to hazard mitigation. The Element includes very little in the way of GHG mitigation from non-transportation sources. Without including GHG mitigation measures climate change is not being incorporated when calculating risks to the assets. It is important for effective policy to include adaptation strategies. If the City wishes to pursue protecting the environment, they must include both mitigation and adaptation elements.

Plan is achievable.

- The broadness of the element makes the meaningful progress difficult

The broad statements in the policy framework make the limited goals and policies inadequate to address the issues it hopes to solve.

Plan consists of strategies and policies that are well integrated with other areas.

- The element's subject matter overlaps considerably with other elements and explicit mention of this would benefit the plan
- Mention of overlaps with elements that have indirect effects on the environment (Land use, Housing)

The broad scope of this element creates an environment in which multiple elements overlap with its subject area, specifically the Shoreline, Parks, and Transportation elements. Interaction with these elements would help to more fully address the mission of the Environment Protection Element and likely strengthen the approach of the City to address the issue of environmental protection.

Strategies and goals are supportive and not adversarial.

- No noticeable gaps

Goal or strategy is sufficient in addressing hazards

- Goal 4 regarding air quality is incomplete and does not address all factors in air quality (wildfire, not transportation pollution)
- Goal 4's policies to deal with air quality are insufficient
- No mention of worsened heat

One of the main gaps noted was the plan's lack of GHG mitigation measures and this can be represented in goal 4's policies that don't completely address emissions enough to make a significant impact in GHG reductions.

Broader Plan Considerations

The broader plan elements—those not focused on environmental protection— are quite comprehensive, and generally are notable not so much for blatant omission, but for the use of less compelling, less directive language. While many elements do at least obliquely relate to the Environmental Protection element, often the language used is not directive, but merely suggestive. To strengthen these elements, and the overall plan, stronger and more action-oriented language should be used.

Land Use Element

The Land Use element of the plan, as a required element of Washington's GMA, only indirectly addresses many land use elements that relate to climate change and does not identify any goals or focus on any policies or strategies to directly address climate change as it relates to land use. Several policies indirectly encourage behavior counter to a sound environmental protection policy, such as discouraging densities or supporting expansion into areas without a strong environmentally-focused plan for annexation.

This is an opportunity area for policy recommendations that would not only strengthen the language used but more closely align Land Use element policies with goals outlined in an expanded Environmental Protection element. Frontline and vulnerable communities are also under-represented in this element and provide another opportunity to provide a more comprehensive Land Use element.

Housing Element

The Housing element, also required by the GMA, again indirectly addresses many components of housing that can be used to lessen climate impacts. It does not identify any goals or provide any focus on policies or strategies that would directly address lessening climate impacts through housing policies. There are several conflicting policies, most notably concerning density. Some housing policies weakly encourage density, while others implicitly resist increasing density. Residential zoning is overwhelmingly focused on Single Family Housing. There are policies supporting and encouraging multifamily housing, as well as references to encouraging and increasing "missing middle" housing, but neither are described as such to indicate that either are priorities.

This also is an opportunity area for recommendations that would align Housing policies with the Environmental Protection element, as well as an opportunity to strengthen the existing language use. As with the Land Use element, frontline and vulnerable communities are also under-represented in this element, and provide another opportunity to make the Housing element more robust.

Economic Development Element

The Economic Development element policies do not address climate change or the detrimental impacts on the economy of the City. This is an opportunity area for policy recommendations especially as many economic drivers, such as tourism, have the potential to be highly impacted by climate change. Goals and strategies could also focus on encouraging more environmentally friendly industries to locate in Snohomish.

Shoreline Element

The Shoreline element is longer and more thorough than the Environmental Protection element and does a better job addressing the interrelation between its element and other elements. The plan overlaps especially with the Environmental Protection element. This overlap means that the two elements might reference each other and contain complementary goals, policies and strategies in order to more efficiently reach their goals. That being said, the Environmental Protection element has little reference to the Shoreline element in its language. In order to bolster the effectiveness of the element,

the inclusion of the element's similarities in the text might enhance the comprehensiveness of the plan. The Shoreline element falls short much like the rest of the plan in regards to consideration of frontline communities and especially with no mention of Indigenous tribes tied to the Snohomish River.

The inclusion of this Shoreline Protection element would suggest that the Environmental Protection element could focus more on other elements that are sure to affect the City such as wildfires or increased heat concerns. The element also provides a nice framework for expanding the Environmental Protection element with adjacent industries and concerns listed under each goal in order to get a clearer vision of what the goals will look like in implementation.

Parks Element

This is another GMA-required element and resembles the Shoreline element. The plan also overlaps with the Environmental Protection element significantly and its goals could be better referenced by the Environmental Protection element in order to strengthen its efforts.

The Parks section could include climate adaptation considerations not addressed in the Environmental Protection element such as cooling facilities in parks to deal with more extreme heat days or even the inclusion of stormwater parks or similar facilities in order to deal with the flooding hazards.

- PE: *PRO 2* is centered around the preservation of “open space” and “ecologically significant” and “sensitive” spaces which has a large implication on the protection of the environment. The element also prioritizes the acquisition of vulnerable shorelines in an effort to better preserve them.

Transportation

The transportation element largely describes activities necessary to fulfill state planning requirements, such as Level of Service and Concurrency provisions. Beyond these mandated aspects, however, the Element also illustrates the City’s vision for the future transportation network, a vision that sometimes finds itself in conflict with Snohomish’s stated goals on climate mitigation. There are several specific policies that conflict with mitigation efforts:

TR 2: SR 9 capacity. Support efforts to increase capacity on State Route 9

Increasing capacity on SR9 would induce increased demand, resulting in greater levels of GHG emissions from car travel. If the improvements to SR9 are part of a regional effort that is not under the City’s control, that should be stated to communicate consistency of goals and objectives to the reader. If the project is exclusively under the City’s control and is not part of a mandated Level of Service or Concurrency improvement, then efforts to increase capacity run directly counter to the City’s stated climate goals and its requirement to reduce emissions per Washington State emissions reductions goals.

TR 14: Complete streets. Incorporate pedestrian, bicycle, and transit-friendly designs into roadway improvement projects where feasible.

Complete streets projects are absolutely in line with Snohomish’s climate goals, however, the Plan would benefit from stronger language here. If the City is serious about facilitating mode shift away from personal vehicles and towards transit and active transportation, “where feasible” is not conducive to the desired mode shift. While this is specifically a matter of semantics, the Comprehensive Plan communicates Snohomish’s planning intentions and could be revised to better reflect existing commitments.

TR 29: Electric vehicles. Evaluate opportunities to install charging stations for electric vehicles.

Considering Snohomish’s relatively remote location and lack of rail travel options, it is likely that personal vehicles will remain the dominant choice for commuting and other travel going forward. Snohomish has noted concerns about lacking the capacity for mass electrification, however, that should not discourage proper planning for increased EV consumer demand. One way to address this would be to include a provision to analyze the amount of public EV charging the city currently has capacity for, and whether capacity could be expanded in the near term, laying out different capacity scenarios and the amount of public charging each could support.

Capital Facilities

- *CF 1.2: Capital improvement criteria. Proposed capital improvement projects shall be evaluated and prioritized using all the following criteria: a. Whether the project supports land use plans and is consistent with capital priorities established in transportation, utility, and park plans; b. Whether the project is needed to correct existing deficiencies, to maintain or replace facilities, or to provide capacity for future growth; c. Whether the project will eliminate a public hazard; d. Whether the project is consistent with prudent fiscal management, including but not limited to costs associated with future maintenance and operations, based on an evaluation of alternatives; e. Whether the improvement will encourage economic development in targeted areas; and f. How the project may affect natural and cultural resources.*

The Capital Facilities Element includes the above provision that projects should be evaluated on several criteria to ensure suitability and financial sustainability. The list of criteria, while thorough, does not include climate concerns, both in terms of mitigation and adaptation, which should be added to reflect city, county, and state commitments. This would not be a significant departure; criteria a. and d. concern the long-term feasibility and compatibility of projects, and criteria c. and f. concern the natural environment’s relationship with the project. Climate risks such as flooding (whether from rivers or heavy rainfall), extreme temperatures, and drought all have the potential to damage or limit the utility of infrastructure projects and should be considered. For example, a project that adds significant amounts of impervious surfaces without mitigation for rainwater would be a greater problem in the future than it would be currently. In terms of mitigation, capital project compatibility with Snohomish’s climate goals should be considered, especially for transportation projects that have the potential to induce additional vehicle trips. One way to include these concerns would be to add additional criteria on project compatibility with climate mitigation and add language about projects increasing hazard risk to criteria c.

Utilities

- *UT 1.12: Facility location and design. Wireless communication facilities should be designed and located in a manner that minimizes adverse impacts, including aesthetic impacts, on adjacent land uses and neighborhoods*

The one gap evident in the Utilities Element is the lack of climate concerns in terms of facility location. Similar to our prior comment on the Capital Facilities element, we would recommend adding language to address location-specific climate risks and the need to identify concrete ways to mitigate them.

Conclusion

Comprehensive plans serve the particular purpose of guiding government actions on multiple fronts. Much of their strength is derived from the breadth and ability to be applied to differentiated situations; however, if plans become too broad or omit certain concerns they become an inaccurate or incomplete guide for stakeholders. The Environmental Protection element is an elective element of the comprehensive plan and is necessary and important to secure Snohomish's future amid a changing climate. We identified the above criteria based on guidance from the Washington Department of Commerce but the overall thematic pattern is that the gaps we have identified are areas that are overlooked or not adequately addressed in the plan. These gaps were mainly found in the Environmental Protection element but we were able to analyze other sections to find significant gaps. We can generalize the identified gaps as the following:

- Policies or goals that directly conflict with mitigation planning
- Policies or goals that do not consider climate adaptation/changing risks
- Policies or goals that would benefit from more precise or stronger language

Generally speaking, the Comprehensive Plan is well thought out, and we acknowledge that the Plan is not a policy implementation document; that being said, there are certainly opportunities to more thoroughly address climate mitigation and adaptation throughout.

Deliverable 7: Draft Goals and Policies for Climate Element

To: City of Snohomish

From: University of Washington Climate Planning Studio

Re: Draft Goals and Policies for Climate Element

Date: May 19, 2023

This memo summarizes the work completed to date in preparing a list of draft goals and policies that the City of Snohomish can utilize to incorporate climate change mitigation and resilience into their 2024 Comprehensive Plan Update.

Background

The University of Washington Climate Planning Studio previously identified increased flooding, precipitation, extreme heat events, drought, and wildfire as the climate hazards most applicable to the City of Snohomish. The Studio also identified critical assets in the city and performed a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to determine which assets are most vulnerable to climate change impacts. The results of this analysis are included in the document titled “Climate Planning Studio: Deliverable #1,” dated April 27, 2023.

Overarching Climate Goal

To reduce its climate vulnerability to the maximum extent feasible and align with state and county climate goals, the City of Snohomish must reduce its greenhouse gas emissions by 35% in the next seven years, ultimately reaching net zero GHG emissions by 2050. This overarching emissions reduction goal is based on a greenhouse gas inventory conducted for the City as part of this studio and is the foundation of remaining mitigation goals and policies to be incorporated into the City’s Comprehensive Plan.

Policy Recommendations

As discussed under Deliverable 5, the Washington State Legislature passed legislation in May 2023 requiring communities with populations greater than 6,000 in Growth Management Act counties – including Snohomish County – to incorporate climate change mitigation and resilience into their comprehensive plans. In anticipation of this legislation, the Washington State Department of Commerce developed guidance for cities and counties addressing both greenhouse gas reduction and climate resilience in their planning efforts.¹ The guidance, which became available for public comment beginning in March 2023, includes 213 draft goals and policies, divided into eleven “Climate Nexus Sectors.” These sectors, which are listed in Table 1, are consistent with the sectors used by the University of Washington Climate Impacts Group in projecting specific climate impacts, such as flooding or extreme heat, to

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<https://www.commerce.wa.gov/serving-communities/growth-management/growth-management-topics/climate-change/>

communities across the state, and have been used across deliverables in this studio to evaluate the applicability of hazards, regulatory environments, and policies.

1	Agriculture & Food Systems
2	Buildings & Energy
3	Cultural Resources & Practices
4	Economic Development
5	Ecosystems
6	Emergency Management
7	Health & Well-Being
8	Transportation (Roads, Bridges, Multimodal)
9	Waste Management
10	Water Resources
11	Zoning & Development

The goals and policies included in the Department of Commerce guidance document are a synthesis of policy recommendations from state and federal agencies including the Washington Department of Ecology, Washington Department of Fish & Wildlife, the United States Environmental Protection Agency (USEPA), and the Federal Emergency Management Agency (FEMA). The guidance also includes recommendations from the University of Washington Climate Impacts Group, other universities, and the C40 Cities Climate Leadership Group. Due to time constraints and the comprehensive nature of the guidance, the Studio focused its efforts under Task 7 on identifying and prioritizing goals and policies included in the guidance. The group used a 0-4 rating system to rank goals and policies included in the Commerce guidance based on their applicability to the City of Snohomish, their feasibility given our understanding of the City's resources, their effectiveness in mitigating greenhouse gas emissions or building resilience to anticipated climate impacts, and their alignment with expressed City interests. The policy ranking methodology is detailed in the Deliverable 7 Methods section on page 20.

After the initial policy ranking was complete, the list of goals and policies was narrowed to 188 by eliminating any items from the Department of Commerce guidance that were determined not to apply to the City of Snohomish. The 188-item, Comprehensive Policy Menu includes goals and policies as they were provided by the Department of Commerce, with a column of proposed edits. This document, included as *Appendix B*, is provided as a reference should the City desire to review the source language behind our policy recommendations.

The Comprehensive Policy Menu was then sorted into goals, compared to the state and county-level regulations and policies discussed in Deliverable 5, and revised to eliminate redundancies and improve relevance to the City of Snohomish. The results of the gap analysis discussed in Deliverable 6 were also reviewed to determine if the provided policies meet an identified gap in the City’s Comprehensive Plan or are consistent with an existing policy. The resulting Tailored Policy Menu includes 31 goals with 139 supporting policies across 10 Climate Nexus Sectors— goals and policies that the Department of Commerce included under “Agriculture” were redistributed since the agricultural sector within the jurisdictional boundary of the City of Snohomish is limited. The Tailored Policy Menu document included as *Appendix C*, includes estimates of the expected impact of each goal/policy— the extent to which implementation of the goal or policy will mitigate greenhouse gas emissions or build resilience to a specific climate hazard— the estimated cost of implementing each goal/policy, the anticipated timeline for implementation, and considerations regarding the feasibility of implementing the goal/policy within Snohomish. These descriptors are intended to assist City staff and other stakeholders in deciding which policies to include in the 2024 Comprehensive Plan Update.

Key Takeaways

A significant portion of policies in the Tailored Policy Menu (42 of 139) are related to the Transportation and Zoning & Development Climate Nexus Sectors. Land use decisions, including sustainable site and building design standards and climate-informed siting of public facilities, coupled with an increase in multimodal transportation options within the City, will be critical in creating a path towards meeting the City’s overarching emissions target and building a more resilient Snohomish. There are 34 policies directly related to ecosystems and water resources that highlight the importance of protecting and enhancing the natural environment. Ecosystems are especially vulnerable to the identified climate change impacts that will affect Snohomish, and long-term ecosystem function is fundamental to overall climate resilience.

Equity is identified as a co-benefit (“promotes equity and justice”) but specific language to equity and justice can be better integrated into the policy language provided by the Department of Commerce. For example, in the Ecosystems sector, we added two policies borrowed from the *King County 30-Year Forest Plan* to fill a gap in the relationship between tree canopy and equitable community involvement. A further limitation in our analysis of equity in the policies is the absence of the planned “Climate Equity and Uplift Community Leaders” content in the Appendix to the Guidance.

Using the recommendations in *Appendix B*, we hope the City of Snohomish will be able to integrate a wide range of policy options that meet climate goals and are responsive to the needs and limited resources of a small community.

Methods

Deliverable 5 Methods

Method Type: Qualitative

Step-by-step Process:

Step 1: We reviewed policies from Washington State, Puget Sound Regional Council, Snohomish County, Puget Sound Clean Air Agency, and Puget Sound Clean Air Agency and to identify climate or carbon reduction policies that frame the climate policy environment the City of Snohomish is operating within.

Step 2: We then indicated with an “X” if these policies align with the 11 sectors of the Model Climate Element (Agriculture and Food; Buildings & Energy; Cultural Resources & Practices; Economic Development; Ecosystems; Emergency Management; Health & Well-Being; Transportation (roads, bridges, multimodal); Waste Management; Water Resources; and Zoning and Development), adding five of our own elements we consider important, but were not present in the Model Climate Element (Equity/Vulnerable Communities; Greenhouse Gas Emissions Reductions; Jurisdictional/Regional Coordination; Adaptation/Resilience; and Mitigation/Reduce Emissions).

Step 3: We then analyzed the interactions between different goals and policies within each sector to identify possible synergies or overlaps in policies. We prepared a memo to illustrate the regulatory framework from the state, regional, and county levels to inform Deliverable 7’s policy recommendations.

Policy/Documents Reviewed:

1. Snohomish County 2020 Hazard Mitigation Plan (HMP)
 - a. City of Snohomish 2015 Annex to HMP
2. Puget Sound Clean Air Agency
3. Snohomish County 2016 Comprehensive Plan
4. Puget Sound Regional Council Vision 2050
5. HB1181: Climate Change - Planning
6. SB5126 2020: WA Climate Commitment Act; Cap and invest system for GHG emissions
7. HW 2311 2019: Set new GHG emissions targets; Applies to whole state and to state agencies
8. SB5116 2019 - Clean E Transportation Act; Carbon neutral electricity by 2035; Carbon zero electricity by 2045
9. Snohomish County Sustainable Operations Action Plan (SOAP)
10. Snohomish County 2018 Greenhouse Gas Emissions Inventory for Government Operations
11. WA Shoreline Management Act of 1971

Background Literature:

1. Department of Commerce Model Guidance for Climate Planning (2023)

- a. Informed the 11 elements
2. MSRC Local Government Climate Change Documents
 - a. Informed climate change documents to review
3. Dr. Jan Whittington's University of Washington Urban Climate Solutions class informed which Washington State policies were important to receive.

Deliverable 6 Methods

Method Type: Qualitative

Sub Methodology: Qualitative analysis: Creating goals based on well-researched guidelines and understanding the ways in which the Environmental Plan falls short of the goal. The goal of this is to understand areas for improvement in the plan.

Step-by-step Process:

Step 1: Read through the Department of Commerce model climate element.

Step 2: Pull out main themes from sections of documents and craft goals from themes.

Step 3: Read through Environmental Protection Element with attention to shortcomings as laid out by the Department of Commerce.

Step 4: Understand what parts of the existing plan do not meet the criteria created.

- a. This is an inherently qualitative method so it is helpful to first list out the most blatant shortcomings.

Step 5: Review broader plan for goals, strategies, and policies that might cover gaps listed in the Environmental Protection Element.

Step 6: Review other Elements for policies and gaps that could be related to the scope of the Environmental Protection Element.

Step 8: Draft brief conclusions.

Background Literature:

- a. Washington State Department of Commerce Model Climate Element

Deliverable 7 Methods

Method Type: Qualitative

Sub-Methodology: Subjective Ranking: based on a set of criteria considering existing conditions, research into future climate hazards, feedback from city personnel, financial costs, relationship to State and County climate goals, and feasibility considering the resources of a small city.

How did you use the sub-methods chosen in #2 to achieve your goal?

The Department of Commerce guidance was used as a baseline for policy language. The first round of narrowing utilized four categories based on prior research, background knowledge, and on-the-ground experiences. The second round of narrowing folded in knowledge from additional research from existing guidance at the State or County levels. The third round of narrowing condensed language and goal objectives for a diverse yet palatable menu of policies for the City of Snohomish to consider.

Please list the specific names of the appendix documents you have created (or are creating)

- a. Menu of Goals & Policies (Department of Commerce)
- b. Recommended Goals & Policies (Snohomish Studio)

Step-by-step Process:

Step 1: 1st Round Goal - Reduce: eliminate extraneous policies recommended by the Department of Commerce's comprehensive guidance.

- a. Criteria are as follows:
 - i. This policy is relevant to the City of Snohomish
 1. 0 - Strongly Disagree; 1 - Disagree; 2 - Neutral; 3 - Agree; 4 - Strongly Agree
 - ii. This measure/policy/action will influence identified priority hazards (flooding/extreme precipitation, drought/extreme heat, and/or wildfire/smoke)
 1. 0 - Strongly Disagree; 1 - Disagree; 2 - Neutral; 3 - Agree; 4 - Strongly Agree
 - iii. City staff have expressed interest in this measure/policy/action.
 1. 0 - Strongly Disagree; 1 - Disagree; 2 - Neutral; 3 - Agree; 4 - Strongly Agree
 - iv. This measure/policy/action is feasible considering the resources of a small community.
 1. 0 - Strongly Disagree; 1 - Disagree; 2 - Neutral; 3 - Agree; 4 - Strongly Agree
 - v. Department of Commerce: "Highest Priority Measures"
 1. YES = Red; NO = empty
- b. Elimination Qualifications:

- i. Any goals/policies with two or more '0' rankings under Criteria 1
- ii. Discuss goals/policies with one or more '0' rankings under Criteria 1
- iii. Discuss goals/policies with rankings at or below 9pts (of a potential 16)

Step 2: 2nd Round Goal: Condense

- c. Apply findings from State and County plans and regulations to identify areas for which the City of Snohomish is specifically responsible
- d. Rank relative importance of policies within the goals identified by the Department of Commerce

Step 3: 3rd Round Goal: Specify

- e. Refine the wording of policies to be specific to the City of Snohomish
- f. Provide contextual rankings of final list of condensed policies
 - i. Impact: If implemented, what level of relative impact will this have on the City of Snohomish and its networks?
 - 1. Low; Medium; High
 - ii. Level of Investment / Cost: How much money is expected to be allocated to fulfill the policy measure?
 - 1. \$ = Low level of investment / projected cost; \$\$ = Medium level of investment / projected cost; \$\$\$ = High level of investment / projected cost; Variable = Range of investment / projected cost
 - iii. Co-Benefits: associated co-benefits identified by the Department of Commerce in the Climate Planning Guidance
 - iv. Implementation Timeframe: How long will the policy take to develop and implement?
 - 1. Short (<5 years); Medium (5-10 years); Long (>10 years); Variable = range of potential timelines for implementation
 - 2. Implementation may also be an ongoing matter
 - v. Feasibility Considerations: In a short narrative form, what are some items that should be considered that are not within the scope of the previous assessments, or support and qualify policy dimensions?

Step 4: Compile final list of policies in document that includes, for each sector:

- g. Goal
 - i. Co-benefits
- h. Policy
 - i. Impact
 - ii. Co-benefits
 - iii. Level of Investment / Projected Cost
 - iv. Implementation Timeframe

v. Feasibility Considerations

Sources/Document Reviewed

- a. Washington State Department of Commerce - Model Climate Element, Appendix C: Climate Element Workbook
 - i. <https://app.smartsheet.com/b/publish?EQBCT=ebd5651cb7bc4213a2cd8f942ea49279>
 - ii. Rationale: Completing steps in this workbook correlates with State guidance and can be directly comparable with independent City efforts
- b. King County 30-Year Forest Plan
 - i. <https://your.kingcounty.gov/dnrp/library/water-and-land/forestry/30-year-forest-plan/30-year-forest-plan.pdf>
 - ii. Rationale: This planning document contains language borrowed for the Ecosystem Sector proposed policies regarding equity and urban forests.

Background Literature:

- a. Washington State Department of Commerce - Model Climate Element (Draft for Public Review)
 - i. Source Link: <https://deptofcommerce.app.box.com/s/bfxuex8uvupyeh7hsfdnlhkpduggg1cj>
 - ii. Rationale: This is poised to be *the* climate planning guide for communities after the current Legislative Session [HB 1181 (passed); SB SB 5203 (pending as of May 16, 2023)]
- b. Climate Action Plan (City of Kenmore)
 - i. Source Link: <https://www.kenmorewa.gov/home/showpublisheddocument/2209/637898707618200000>
 - ii. Rationale: This document is a good example of synthesizing climate data and translating into goals and policies related to climate change in the City of Kenmore.

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Appendices

Appendix A: Regulation Summaries

Please see the Excel attachment titled "Appendix A_Regulation Summaries"

Appendix B: Comprehensive Policy Menu

Please see the Excel attachment titled "Appendix B_Comprehensive Policy Menu"

Appendix C: Tailored Policy Menu

Please see the Excel attachment titled "Appendix C_Tailored Policy Menu"