

# Building Community Resilience

## GMA Comprehensive Plan Recommendations for Climate Planning in Whatcom County

ENVS 374: Land Use Regulations and Technical Writing

June 2021



**Sustainable  
Communities  
Partnership**



## About SCP

Western's Sustainable Communities Partnership (SCP) program focuses the expertise, energy, and ideas of faculty and students upon the issues that communities face as our society transitions to a more sustainable future. SCP partners with communities each academic year, facilitating a program in which Western courses complete community-engaged learning projects that address challenges identified by the partner.



**Sustainable  
Communities  
Partnership**

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## SCP Partner for 2020-21: Whatcom County

SCP is proud to partner with Whatcom County during the program's fifth year. One Western course and two graduate student coordinators tackled projects identified in collaboration with Whatcom County staff.



## Acknowledgments

This project was funded by a climate planning grant through the Washington Department of Commerce. The Association of Washington Cities (AWC) has provided invaluable assistance as SCP has grown and developed. AWC has provided advice on program development and has assisted in promoting the program.



SCP is housed within Western's Office of Sustainability.



## PREFACE

During the 2020-21 academic year, Whatcom County partnered with Western Washington University's (WWU) [Sustainable Communities Partnership](#) program to support consistent and coordinated climate planning across jurisdictional boundaries within Whatcom County. Through this partnership and with staff support from the Port of Bellingham and the City of Bellingham, the collaborative Building Community Resilience Project supported the cities of Blaine, Lynden, Ferndale, Everson, and Nooksack in their climate planning efforts. During the spring 2021 academic quarter, WWU faculty member, Dr. Tamara Laninga, and upper-level students in Dr. Laninga's Land Use Regulations and Technical Writing course (ENVS 374) developed draft climate change mitigation and adaptation goals, objectives, and policies for jurisdictions to consider adopting into their existing Growth Management Act (GMA) comprehensive plans. The WWU students recommended language for the following GMA elements: transportation, housing, land use, economic development, utilities, capital facilities, environment, and/or parks and recreation.

The language included in the remainder of this report represents recommendations and does not constitute a policy decision from the participating jurisdictions. The project team encourages the participating jurisdictions to include the recommendations in their next comprehensive plan updates. If a strong collaborative effort to progress climate planning can be put forth and maintained, the larger community of Whatcom County will benefit from increased resilience to climate change.

### Western Team

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## INTRODUCTION

In 2020, Whatcom County received a climate change planning grant from the Washington Department of Commerce to support the integration of climate change planning into Growth Management Act (GMA) comprehensive plans. During the 2020-21 academic year, Whatcom County partnered with Western Washington University's (WWU) [Sustainable Communities Partnership](#) program to support consistent and coordinated climate planning across jurisdictional boundaries within Whatcom County. Through this partnership and with staff support from the Port of Bellingham and the City of Bellingham, the Building Community Resilience Project supported the cities of Blaine, Everson, Ferndale, Lynden, and Nooksack with recommendations to incorporate customized climate change mitigation and adaptation goals, objectives, and policies into each city's existing comprehensive plans.

### Climate Impacts in Whatcom County

Planning allows jurisdictions to be proactive in preparing for future changes within communities. Part of this future involves climate change, the impacts and implications of which need to be understood and addressed. The first step to planning for a more resilient future includes understanding the observed and projected impacts that climate change will have within a community. As outlined in the Whatcom County Climate Action Plan: Summary of Observed Trends and Projected Climate Change Impacts (2020), the primary drivers of climate impacts include changes in temperature, precipitation, and hydrology patterns, and sea level rise. These drivers result in observed and projected impacts in Whatcom County such as increased wildfire risk, degraded air quality, reduced snowpack, reduced streamflow, increased risk of drought during summer months, increased landslide risk, increased erosion rates, increased sediment transport, and increased flooding risk in winter months. Each of these impacts will have environmental, public health, safety, social, and economic consequences within Whatcom County.

### Climate Planning and the Growth Management Act

While climate impacts are projected to affect the way and quality of life in Whatcom County, planning for these changes will make communities more resilient to climate change and natural hazards. Resilience is the ability for human and natural systems to maintain function in the face of external stresses such as those mentioned in the previous section. By including climate-friendly goals, policies, and objectives in planning documents, today, Whatcom County communities will be more prepared to respond to the projected impacts of climate change in the future.

Climate planning typically includes two strategies: mitigation and adaptation. Mitigation strategies reduce the rate and extent of climate change by reducing greenhouse gas emissions. Examples of mitigation strategies include higher-density development, reducing vehicle emissions, encouraging multimodal transit, promoting energy efficiency and renewable energy production, and planting native and drought resistant trees and vegetation. Adaptation strategies address the impacts of climate change by increasing resilience to and decreasing vulnerability to climate impacts. Examples of adaptation strategies include climate-aware zoning and permitting and hazard risk reduction. Both mitigation and adaptation strategies have essential roles in increasing community resilience to climate impacts.

For many communities, it is logical to include climate change mitigation and adaptation goals, policies, and objectives into existing adopted Growth Management Act (GMA) comprehensive plans. Climate impacts have the potential to affect every planning goal of the GMA. A proactive comprehensive plan should consider these impacts. While addressing climate change is not a requirement under the GMA, many communities are planning for these impacts through land use and transportation planning or by adding a climate change section to their comprehensive plans. By planning for the impacts of climate change now, jurisdictions will save financial resources, protect local environmental resources, help maintain a high quality of life, and improve community livability for generations to come. Below is a description of how climate planning applies to various GMA elements.

### Transportation

A safe, dependable, well-maintained multimodal transportation system that provides good facilities for non-motorized users and pedestrians, and good access to transit, can reduce congestion, promote public health and livability, support community character, manage stormwater runoff, reduce the city's greenhouse gas emissions and air pollution, and increase the community's resilience to the effects of climate change.

### Housing

Planning for a diversity of low-impact housing options close to urban services and away from potential natural hazards can ensure a community's existing and future housing stock is resilient to the observed and projected impacts of climate change while maintaining the city's quality of life and character. For example, promoting density through infill can improve a city's livability, walkability, and air quality, and reduce greenhouse gas emissions as residents are less dependent on a car for daily needs and destinations. Climate resilient housing also prioritizes efficiency and low-impact building techniques and plans for changing climatic and natural hazard conditions, such as increased frequency and intensity of flooding.

### Land Use

Compact, mixed-use, low-impact development and alternative transportation policies can protect public health, safety and welfare, while mitigating for and adapting to climate change, by reducing vehicle emissions, promoting infill development and green building standards, requiring drought-tolerant landscaping, preserving critical areas and working landscapes, shifting development and infrastructure from hazard areas, and supporting sustainable economic development.

### Utilities

A durable and robust utility system that deemphasizes reliance on fossil fuels and promotes local energy production through renewable resources or energy conservation measures can reduce a jurisdiction's carbon footprint and increase energy independence. Further, directing development within existing service areas and ensuring equitable access to utility services lowers expenditures and mitigates climate change impacts.

## Capital Facilities

Capital facilities need long-term durability and function and thus require policies that limit or remove infrastructure, services, and capital expenditures from areas of current and future climate change impacts. Jurisdictions can implement policies encouraging or incentivizing power generation, water and waste management, and reductions in energy consumption at a district or regional level.

## Economic Development

A diverse local economy that uses local resources, sources renewable power, invests in local businesses, and attracts green industry will be less vulnerable to economic volatility and will support low-carbon economic growth.

## Environment

Natural systems and ecosystem services that are protected with policies that retain vegetation and tree canopies, maintain ecosystem functions, support low impact development, and emphasize conservation can enhance air and water quality, protect habitat, recharge groundwater, stabilize local climate, and maintain environmental integrity.

## Parks and Recreation

Parks and recreation infrastructure that is located near population centers; retains vegetation and tree canopies; conserves water, energy and habitat; facilitates connectivity and corridors for species migration; and is designed to accommodate climate and demographic changes can reduce greenhouse gas emissions, enhance local air and water quality, mitigate urban heat island effects, and promote human health and wellbeing.

## **Process**

A steering committee consisting of staff from Whatcom County, the City of Bellingham, and the Port of Bellingham, as well as staff and faculty from WWU, met monthly over the period of October 2020 - June 2021. The steering committee, chaired by a WWU graduate student, recruited jurisdictions in Whatcom County to participate in the project, discussed their own climate planning processes, and designed the Building Community Resilience Project. Additionally, steering committee members met with staff from each of the participating jurisdictions to identify that jurisdiction's priorities relating to climate planning. During the spring 2021 academic quarter, WWU faculty member, Dr. Tamara Laninga, and upper-level students in Dr. Laninga's Land Use Regulations and Technical Writing course (ENVS 374) built upon lessons learned by Whatcom County, the City of Bellingham, the Port of Bellingham and other western Washington communities in their respective climate planning efforts to develop draft climate change language for jurisdictional consideration. This was an iterative process where students sent several drafts of their recommendations to the steering committee and staff from participating jurisdictions and incorporated their feedback into the final recommendations. The students presented their recommendations to the city councils and/or city staff of each participating jurisdiction in June, 2021. This report includes the recommended climate language for each jurisdiction.

## Overall Recommendations

The proposed language included in this report represents recommendations and does not constitute a policy decision from the participating jurisdictions. However, the project team encourages the participating jurisdictions to include the recommendations in their next comprehensive plan updates. The teams drafted policies that address GMA planning goals consistently across all jurisdiction's comprehensive plans and provided tailored language to highlight unique values, concerns and needs in each community. As a part of further collaboration between participating jurisdictions, the project team recommends that consistent language be considered for the climate change impacts all jurisdictions in the county are likely to face together. If a strong collaborative effort to progress climate planning can be put forth and maintained, the larger community of Whatcom County will benefit from increased resilience.

## How to Read the Recommendations

In the following sections, recommended edits or new policies and goals are provided to Blaine, Everson, Ferndale, Lynden, and Nooksack for different sections of their comprehensive plans. **Red text** represents proposed new text; ~~strikethrough~~ text is suggested for removal.



# BLAINE, WASHINGTON

## COMPREHENSIVE PLAN RECOMMENDATIONS

To support the city of Blaine in planning for observed and projected climate impacts, a Western Washington University student team has compiled targeted policy language for the following comprehensive plan elements: housing, economic development, land use, transportation, capital facilities, parks and recreation, and environment. The proposed language is adapted from various sources. This includes, but is not limited to, comprehensive plans from similar cities and towns such as Bainbridge Island, Coupeville, Langley, Edmonds, and La Conner, as well as the American Planning Association (APA) Climate Change Policy Guide and the Whatcom County Comprehensive Plan.

### Recommendations

#### Vision Statement

*Proposed text to be added to the Vision Statement of the Blaine Comprehensive Plan (p. i):*

Blaine has become known for producing nationally recognized products with an innovative manufacturing sector. Capitalizing on affordable electricity, strong communication utilities and abundant water supplies; business parks, advanced manufacturing and transportation related industry flourishes. Through forward thinking marketing and a resilient eco-tourism industry, business in Blaine is thriving. With more than three million Canadians just over the line in the lower British Columbia mainland, Blaine has developed a stout business sector focused on supplying services to our neighbors to the north. **Furthermore, Blaine understands the vulnerability of local systems to climate variability and sea level rise, and takes measures to reduce the potential for exposure, damage, and loss. Through sustainable growth strategies, Blaine can accommodate more businesses and residents, while ensuring that the local economy continues to thrive for generations to come.**

Blaine's exceptional parks and robust trail system enhance the quality of life for its residents while encouraging visitors to stay and explore. With a modern school campus, Blaine is a highly desirable place to raise a family. Whatcom Community College's satellite campus offers traditional classes by day and career development programs by night. A state-of-the-art medical complex offers specialty procedures, provides the larger community family practice amenities and supports the economy with high-paying jobs.

In West Blaine, Semiahmoo continues to prosper as a resort community anchored by the Inn at Semiahmoo; a destination resort, golf course, and country club. Enlivened by top-shelf restaurants, trendy pubs, and a connection to the downtown district by the historic passenger ferry MV Plover, the Semiahmoo Spit resort district is a well-regarded international destination. **With economic development near the water's edge, Blaine preserves its environmental heritage and conserves critical areas near the shoreline with climate-wise policies** (The Town of Coupeville, 2012).

East Blaine continues to be a hot spot of residential growth as municipal services are extended. Key pedestrian and bicycle linkages make for easy access to downtown from the quiet, forested hilltop neighborhoods.

Blaine has a diverse economy that capitalizes on its border location but is not dependent upon it. The Chamber of Commerce is strong and the government is helpful and efficient. With a welcoming community and a can-do attitude, Blaine is a wonderful place to live and a great place to do business.

With this Comprehensive Plan, Blaine seeks to ensure adequate land capacity and urban services for at least the next twenty years of growth. In some cases, it addresses a longer time horizon. For example, it addresses the observed and long-term projected impacts associated with a changing climate. The best available science projects that climate change will alter temperature, precipitation, and hydrology patterns and fuel sea level rise in the coming decades. In Whatcom County, these changes have and are projected to continue to increase wildfire risk, degrade air quality, reduce snowpack, reduce streamflow, increase the risk of drought during the summer months, increase landslide risk, increase erosion rates, increase sediment transport, and increase flooding risk in the winter months. Blaine can also expect to see an increase in its population as people from other areas impacted by climate change move into Whatcom County. Each of the aforementioned impacts will have environmental, public safety, social, and economic consequences within Blaine. While climate change is projected to affect the way and quality of life in Blaine, planning for these changes will ensure that the city of Blaine remains an economically self-sufficient, thriving community that attracts both tourists and new residents alike.

This Plan uses a “two-pronged approach” to respond to climate change. The first prong, mitigation, lessens the impacts of climate change by reducing the flow of heat-trapping greenhouse gases into the atmosphere. The second prong, adaptation, requires the City to adjust to actual or expected future climate impacts. By utilizing this approach, Blaine will be prepared to promote the health and economic well-being of community members and protect the natural environment for years to come.

## Housing Element

*Proposed text to be added to the Executive Summary of the Housing Element:*

(p. 2-A)

The Housing Element of the Comprehensive Plan looks at existing housing stock, and uses projections of future needs to assess the number, type, and location of houses within Blaine over the next twenty years. Additionally, the Housing Element considers ways to ensure Blaine’s existing and future housing stock is resilient to observed and projected climate impacts.

*Proposed text to be added to Goal 1: To encourage the development of a variety of housing types and prices, including an adequate supply of housing in a price range affordable to employees at available jobs in Blaine and housing which meets the needs of senior citizens:*

Policy 1.1: Residential zoning should provide for a range of allowable uses and densities in all residential zones including medium or high density multi-family units, townhouses, mobile homes, or accessory dwelling units in order to meet the growing needs of seniors,

young adults, minorities, immigrants, and low-income households. The City should promote the establishment of such low impact housing options.

Policy 1.4: Consider current and projected climate impacts (i.e., increased storm surge and flooding, drought, erosion; water supply) in planning for new housing.

*Proposed text to be added to Goal 2: To preserve and enhance the housing and residential neighborhoods which currently exist within the City:*

(p. 2-12)

Policy 2.4: New development should increase compatible density by integrating development into the community in appropriate areas with designs that respect the local character and reduce impacts on critical areas (City of Langley, 2018).

*Proposed text to be added to Goal 3: To beautify and improve the livability of residential neighborhoods in the City:*

(p. 2-12)

Policy 3.5: Incentivize the development of livable neighborhoods where housing is located in close proximity to urban services.

*Proposed text to be added to Goal 7: To encourage the development of affordable housing within the City without sacrificing public safety or the ability to provide needed public services and utilities:*

(p. 2-14)

Policy 7.2: The City supports the creation of low-impact, affordable housing within walking and bicycling distance of schools, parks, transit service, and commercial centers (Angus et al., 2020, 12).

Policy 7.3: The City will reduce barriers and ease permitting requirements for the installation of renewable energy generation technology such as solar panels. The City will seek funding to encourage distributed and community solar and other renewable energy programs.

*Additional proposed goal and policies:*

(p. 2-14)

Goal 8: To ensure that future residential development protects and maintains natural ecosystems and critical areas such as wetlands, streams, and wildlife habitats and promotes good air quality (The City of Port Orchard, 2018).

Policy 8.1: Encourage innovative design and implement regulations that conserve water, energy, and resources and minimize impacts of existing and new residences on air quality and climate (City of Seattle, 2020).

Policy 8.2: The City will promote sustainable building techniques (such as those specified under certification like Leadership in Energy in Environmental Design (LEED), Built Green, Salmon Safe, and Living Building Challenge) or low impact development beyond what is required to create healthy, resource-efficient, cost-effective housing options for residents. The City may establish incentives for existing or new residential buildings that opt to use sustainable techniques (City of Bremerton, 2016).

## Economic Development Element

*Proposed text to be added to Goal 1: To encourage the **sustainable** development or expansion of businesses which will provide expanded employment opportunities for City residents; diversify the City economy, and generate a strong tax base to fund City services:*

(p. 3-8)

Policy 1.10: The City encourages a more resilient local economy that is based on resources and sectors that will be able to adapt to the impacts of climate projections (Hansen et al., 2017).

Policy 1.11: The City invests in a food system based on local production that is adaptive to Whatcom County's anticipated climate projections (Hansen et al., 2017).

Policy 1.12: The City promotes climate-friendly economic development that results in shared economic growth throughout the community (inclusive growth) to combat income inequality and provide increased living standards across all economic sectors and a more resilient economy that will benefit all (Angus et al., 2020).

Policy 1.13: The City promotes and incentivizes the continued development and application of green building standards for new and existing developments (Angus et al., 2020).

Policy 1.14: The City promotes and incentivizes new growth in infill locations (U.S. EPA, 2016).

Policy 1.15: The City encourages and incentivizes the installation of solar panels on new and existing businesses in building regulations.

Policy 1.16: The City encourages installation of green roofs through landscaping and building regulations (Angus et al., 2020).

*Proposed text to be added to Goal 2: To encourage the development and expansion of pedestrian-oriented retail shops, offices, services and tourism businesses in the Central Business zoning districts:*

(p. 3-10)

Policy 2.6: The City intentionally promotes density in the Central Business zoning districts and includes good multimodal connections among mixed-use commercial, low-impact employment, and diverse housing areas (Angus et al., 2020).

## Land Use Element

*Proposed text to be added to Goal 3: Phase annexations and development within the Urban Growth Area (UGA) to encourage infill of vacant property within the City before expanding into rural areas:*

(p. 4-11)

Policy 3.4: The City will promote and plan for mixed-use infill development through the utilization of incentives such as density bonuses and transfer of development rights (Angus et al., 2020).

Policy 3.5: The City ensures that infill and other densification strategies are concentrated in close proximity to Blaine's city center and other urban services.

*Proposed text to be added to Goal 4: Recognize private property rights and balance the protection of these rights with protection of the environment and greater public welfare:*

(p. 4-11)

Policy 4.3: The City should encourage the use of conservation easements, open space taxation, land acquisition, purchase/voluntary transfer of development rights, and other mechanisms that assist affected property owners to protect high-value natural areas as identified through the GMA planning process, the Natural Heritage Plan, the state Priority Habitats and Species (PHS) program, and other sources (Whatcom County, 2018).

Policy 4.4: The City should encourage public education activities that promote the preservation and protection of environmentally critical areas, including vegetation management on bluff properties, downstream impacts from upstream activities, management of invasive plant species, and best management practices for yard maintenance and living by water (City of Langley, 2018, 26).

*Additional proposed goals and policies:*

(p. 4-14)

*GOAL 12: Ensure that public facilities are designed to be climate-friendly and compatible with the city's natural and built environment* (Town of La Conner, 2018).

Policy 12.1: Green buildings and energy efficiency standards should be incorporated in all public facilities.

Policy 12.2: The City should prioritize climate-wise building renovations and retrofits of existing buildings for climate mitigation and cost-saving purposes.

*GOAL 13: Protect natural resources and systems, life, and property from potential hazards* (Whatcom County, 2018).

Policy 13.1: The City will continue to identify, designate, and protect critical areas and other important environmental features and manage as needed to minimize or protect against projected climate impacts and reduce the potential for losses to property and human life (Whatcom County, 2018).

Policy 13.2: By prohibiting, avoiding, or limiting development on steep slopes and on unstable soil and geologic hazard areas, the City will minimize damage to life, property, and resources (City of Langley, 2018).

Policy 13.3: Wetlands should be protected in a manner that enables them to fulfil their natural function as recipients of floodwaters and as habitat for wildlife (Town of Coupeville, 2012).

Policy 13.4: The City should establish a city-wide strategy to address increasing frequency and intensity of storm-surge events (Town of La Conner, 2018).

Policy 13.5: The City will participate with county, state, and federal agencies in formulating and executing Whatcom County's Hazard Mitigation Plan (Town of La Conner, 2018).

## Transportation Element

*Proposed text to be added to the Introduction of the Transportation Element:*

(p. 5-1)

Transportation includes many modes of travel. Walking, using a wheelchair, cycling, driving vehicles and trucks, and riding in trains, boats and busses are all ways people and goods move through and within the City. This plan is intended to support the development of a multimodal transportation system. **A safe, dependable, well-maintained multimodal transportation system that provides good facilities for non-motorized users and pedestrians, and good access to transit, can reduce congestion, promote public health and livability, support community character, manage stormwater runoff, reduce the City's greenhouse gas emissions and air pollution, and increase the community's resilience to the effects of climate change.**

*Proposed text to be added to the Non-Roadway Future Needs section of the Transportation Element:*

(p. 5-19)

Transit: The City envisions a need for a future loop service within Blaine to link Semiahmoo and East Blaine growth areas with the downtown core. This could be an expansion of the Route 55 service or a separate service. **A safe, convenient, and dependable public transit system can promote livability and good air quality and reduce greenhouse gas emissions.** Population needs to increase in real numbers and in density before this is expected to be feasible.

Trails and Sidewalks: **The City recognizes that non-motorized transportation supports community health, livability, walkability, and better air quality, and reduces greenhouse gas emissions.** The City has identified a variety of improvements to pedestrian facilities that are desired to enhance non-vehicular mobility. These include facilities that need upgrading along existing streets, new facilities along streets where none exist today, new facilities in unopened ROW that will be pedestrian only or multimodal facilities not paralleling a street, and in other instances trails that are pedestrian links outside of the ROW, but still serving as important transportation linkages.

*Proposed text to be added to the Transportation Goals, Policies, and Actions section of the Transportation Element:*

(p. 5-21)

### **Coordination Policies**

These policies promote effective coordination between government entities, private enterprise, and the community.

- Multi-agency planning and coordination
- Planning for pedestrians and non-motorized vehicles
- Consistency of transportation programs among jurisdictions
- Coordination of construction projects
- Transit service within the City
- Changes to cross border traffic management
- **Climate-wise policies and planning**

*Proposed text to be added to Goal 3: Transit Coordination:*

(p. 5-23)

Policy 3.4: The City will work with Whatcom Transportation Authority (WTA) to improve transit options. Examples of improvements include expanding the frequency and hours of the existing bus routes, particularly into the evening; promoting the addition of low- and zero-emission buses to WTA's bus fleet; and adding transit stops in or near areas of high-density development to promote public transit use and ridership (Angus et al., 2020).

*Proposed text to be added to Goal 19 Environmental:*

(p. 5-32)

Policy 19.4: The City will allow funding for more fuel-efficient City fleet vehicles, setting a precedent for the community. The City will consider adding electric vehicles to the fleet, as financially and technically feasible, to support good air quality, reduce greenhouse gas emissions, and promote the use of efficient, modern technology.

*Proposed text to be added to Goal 20: Economic Development:*

(p. 5-33)

Policy 20.5: The City will install electric vehicle charging infrastructure when feasible to support zero-emission vehicle options for Blaine residents.

*Additional proposed goal and policies:*

(p. 5-35)

Goal 24: Support the development of a non-motorized transportation network of shoulders, sidewalks, trails, footpaths, and bikeways that connect neighborhoods with schools, green spaces, urban services, and neighboring communities (City of Bainbridge Island, 2016).

Policy 24.1: Plan for people-centric development that encourages bicycle and pedestrian travel along main streets and through open spaces (Angus et al., 2020).

Policy 24.2: Develop and/or enhance a trail system to serve non-motorized users within Blaine.

Policy 24.3: Promote connectivity between pedestrian and bicycle routes and their destination within Blaine to enhance non-motorized transportation modes.

Policy 24.4: Work with Whatcom County and other partners to expand pedestrian and bicycle trails that connect Blaine with destinations throughout Whatcom County.

Policy 24.5: Promote the coordination of a walking and non-motorized route map which identifies areas of interest within the City (City of Bainbridge Island, 2016).

Policy 24.6: Provide adequate street lighting, safety features, and equipment to promote the use of sidewalks and trails (City of Bainbridge Island, 2016).

Policy 24.7: Update the Non-Motorized Transportation Plan to promote connectivity for neighborhoods and the city center so that as development occurs, non-motorized route connectivity and circulation are maintained (City of Bainbridge Island, 2016).

## Public Facilities Element

*Additional proposed goals and policies for the Public Facilities Element:*

(p. 7-24)

Goal 10: Update all current and future essential public facilities to include energy efficient infrastructure and carbon reduction measures.

Policy 10.1: Require renewable energy generating infrastructure to be included in existing and future public buildings.

Policy 10.2: Offer recycling and composting within public facilities and at critical locations throughout capital facilities.

Policy 10.3: Encourage high density development to reduce the expansion of utility hardware and reduce maintenance costs (City of Everett, 2015).

Goal 11: Prevent development of essential public facilities in critical areas likely to be impacted by climate change.

Policy 11.1: Maintain an inventory of existing and future critical areas likely to be impacted by climate change. Develop critical areas regulations for climate impact zones (Hansen, 2016).

Policy 11.2: Develop a climate impact risk index for future and proposed capital facilities to guide phasing of development or mitigation and adaptation projects that deliver essential infrastructure and facilities (Snohomish, 2016).

## Parks Element

*Proposed text to be added to Goal 5: Develop and maintain parklets with passive recreational amenities:*

(p. 8-9)

Policy 5.4: Parklets should seek to create and protect habitat for native species. (City of Edmonds, 2016).

(p. 8-10)

*Proposed text to be added to Goal 7: Develop and maintain high standard recreation trails that are designed to serve the most citizens possible while providing access to scenic views:*

Policy 7.6: Anticipate and plan for current and future high standard recreation trails within inundation and flooding areas to experience increased flooding in coming decades that may erode or destroy trails and other park facilities (Whatcom County, 2020).

*Additional proposed goals and policies:*

(p. 8-10)

*Goal 8: Provide and maintain climate resilient park facilities.*

Policy 8.1: The City should anticipate and plan for significant increases in the frequency of storm surge and high tide flooding relative to today as sea level rises (Whatcom County, 2020).



Policy 8.2: The City’s parks and trail facilities in current and anticipated inundation and frequent flooding locations should be designed with coastal resilience and flood management in mind.

Policy 8.3: The City should develop a plan for the protection of eroding shoreline and bluffs adjacent to current parks and trails using agencies or groups with knowledge and experience in this area (Town of Coupeville, 2012).

Policy 8.4: The City should encourage collaboration with the Port of Bellingham and nearby cities on coastal adaptation measures.

Policy 8.5: The City should locate new parks outside of future hazard prone areas (Hansen et al., 2017).

Policy 8.6: The City should reduce energy and water use in parks by adopting conservation measures (Hansen et al., 2017).

Policy 8.7: The City should prioritize installation of renewable energy sources to power park facilities (Hansen et al., 2017).

Policy 8.9: The City should maintain ecosystem function and habitat in parks (Hansen et al., 2017).

*Goal 9: Provide and maintain coastal park features in low lying areas*

Policy 9.1: The City’s shoreline parks should include restored shoreline buffers and incorporate habitat enhancement (City of Bellingham Waterfront District Sub-Area Plan, 2018).

## Environment Element

*Additional text to add to Executive Summary – Environment:*

(p. 9-A)

The Environment Element identifies existing natural environmental systems and climate trends and impacts for in Blaine, regulations regarding those systems, and ways to further protect those systems.

*Add paragraph just before final paragraph on p. 9-A*

The natural environment systems described in this chapter are influenced and impacted by current and future climate change. Blaine and the surrounding areas of Whatcom County are already experiencing more severe storms and storm surges, wetter winters, and hotter, dryer summers. These changes are expected to continue and intensify in the future, and the city of Blaine recognizes and is planning for these trends.

The main goal of the environment element is to protect critical areas and to ensure Blaine is responsive to changing climate conditions.

*Additional text to add to Introduction:*

(p. 9-6, just before ENVIRONMENT GOALS, POLICIES, AND ACTIONS)

### **CLIMATE TRENDS**

The Whatcom County Climate Action Plan presents the observed trends and projected

changes in average temperature, precipitation, hydrology, sea level rise, storm surge, wildfires, and air quality associated with a changing climate. These projected climate impacts include an increase in annual average temperature of 4.2°F to 5.5°F and an increase in average annual precipitation of 4% to 5% by the 2050s. Of particular concern for Blaine as a seaside city, the plan also projects a sea level rise of 1.5 to 1.9 feet by 2100 in the greater Bellingham area. Increased periods of intense heat (temperatures above 90°F) and diminished air quality are projected as well (Whatcom County Climate Action Plan, 2020). Throughout this chapter and the Blaine Comprehensive Plan as a whole, these projections have been used to inform goals, actions, and policy language.

*Additional text to add to Goal 3: Protect groundwater as the only source of potable water for Blaine residents and for agricultural and industrial uses:*

(p. 9-8)

Action C: The City should utilize green infrastructure to reduce the possible impacts of development on groundwater (City of Langley, 2018).

*Additional proposed goals and policies.*

(p. 9-10)

Goal 6: Improve community resilience by encouraging adaptation to the impacts of a changing climate.

Policy 6.1: *Resilience & Adaptation* - The City's infrastructure is resilient to projected climate impacts such as sea level rise, increased average temperatures, and increased seasonal rainfall and drought (Whatcom County Climate Action Plan, 2020).

Policy 6.2: *Harm Reduction* - The City pursues strategies to reduce the harmful effects associated with projected climate impacts on residents and businesses.

## *ACTIONS*

- A. The City should encourage the use and preservation of native, climate resilient vegetation so that landscaping and green spaces stay intact in future climate conditions (Angus et al., 2020).
- B. The City should utilize green infrastructure such as bioswales and rain gardens to improve the climate resiliency of the stormwater management system (Angus et al., 2020).
- C. The City should promote a tree replacement program in order to prevent the net loss of trees. Trees promote climate resilience through carbon sequestration, air purification, and shade (Angus et al., 2020).
- D. The City should identify and map low-lying areas along the coastline likely to be impacted by projected sea level rise using the PS-CoSMoS model (Whatcom County Climate Action Plan, 2020).
- E. The City should consider sea level rise and storm surge when locating new public facilities within identified inundation areas (City of Bainbridge Island, 2017).
- F. In order to protect residents and businesses, the City should implement harm mitigation strategies when allowing development in areas likely to be impacted by sea level rise, storm surge, and high tide flooding (Whatcom County Climate Action Plan, 2020).

# EVERSON, WASHINGTON

## COMPREHENSIVE PLAN RECOMMENDATIONS

To support the city of Everson in planning for observed and projected climate impacts, a Western Washington University student team has compiled targeted policy language for the following comprehensive plan elements: land use, capital facilities, housing, transportation, and utilities. The proposed language is adapted from various sources including comprehensive plans from cities and towns such as Bainbridge Island, Eatonville, Forks, Kalama, Mount Vernon and Seattle, as well as the American Planning Association (APA) Climate Change Policy Guide and the Whatcom County Comprehensive Plan.

### Recommendations

#### Introduction

*Proposed text to be added to the Introduction of the Everson Comprehensive Plan:*

(p. 1-1)

Land-use element. This element designates the proposed general distribution, location, and extent of lands for housing, commerce, industry, recreation and open space, ~~and~~ public facilities, and utilities, **with careful consideration of floodplain areas.**

(p. 1-1)

Transportation element. This element contains an inventory of transportation facilities and services along with an analysis of future transportation needs. The element also presents a six-year financial plan for ~~transportation~~ improvements **for both motorized and non-motorized transportation.**

(p. 1-2)

A plan written in compliance with the GMA must address in general terms the twenty-year planning period, but must also include a detailed financial analysis pertaining to the first six years of that period.

**Through this Comprehensive Plan, Everson seeks to ensure adequate land capacity and urban services for at least the next twenty years of growth. In some cases, it addresses a longer time horizon. For example, it addresses the observed and long-term projected impacts associated with a changing climate. The best available science projects that climate change will alter temperature, precipitation, and hydrology patterns and fuel sea level rise in the coming decades. In Whatcom County, these changes have and are projected to continue to increase wildfire risk, degrade air quality, reduce snowpack, reduce streamflow, increase the risk of drought during the summer months, increase landslide risk, increase erosion rates, increase sediment transport, and increase flooding risk in the winter months. Due to its proximity to the Nooksack River, Everson expects to see increased flooding events, safety hazards on current infrastructure, and downstream sediment erosion onto properties and agricultural lands. Everson can also expect to see an increase in its population as people from other areas impacted by climate change move into Whatcom County. Each of the aforementioned impacts will have environmental, public safety, social, and economic consequences within Everson.**

While climate change is projected to affect the way and quality of life in Everson, planning for these changes will make the community more resilient in the face of such external stresses.

This Plan uses a “two-pronged approach” to respond to climate change. The first prong, mitigation, lessens the impacts of climate change by reducing the flow of heat-trapping greenhouse gases into the atmosphere. The second prong, adaptation, requires the City to adjust to actual or expected future climate impacts. By utilizing this approach, Everson will be prepared to promote the health and economic well-being of community members and protect the natural environment for years to come.

## Land Use Element

*Proposed text to be added to the 3. Land-Use Element section, paragraph 2:*

(p. 3-1)

The land-use element has been developed in accordance with Whatcom County's County-Wide Planning Policies, and is integrated with the other planning elements to ensure consistency throughout the document. Specific issues considered in creating this land-use element include the distribution, density and intensity of current land uses, appropriate densities and intensities during the twenty-year life of the plan given the community's vision for its future, current growth projections and development trends, and the ability to provide public services including water, sewer, and stormwater. **The policies in the Land Use Element are recommended to meet growth management and revitalization goals while promoting community resilience to a changing climate.**

*Additional proposed goals and policies:*

(p. 3-17)

**Goal:** The City should encourage mixed-use density close to urban services and the downtown that promotes pedestrian connectivity.

**Policy:** The City should promote increased density by utilizing infill strategies to increase housing types and opportunities close to urban services and outside of climate impact zones (floodplains) (City of Everett, 2015).

**Policy:** The City should facilitate the re-investment and rehabilitation of existing housing within residential and mixed-use neighborhoods to maximize infill outside of climate impact zones. (City of Mount Vernon, 2016).

**Policy:** The City should provide a pedestrian and bicycle network that connects commercial, residential, and open space uses within and between Everson and Nooksack (Whatcom County Council, 2018). This network shall consist of trails, pathways, and widened sidewalks. The commercial uses are intended to primarily serve their surrounding residential areas, and these residents should be able to walk or bike to these areas (City of Mount Vernon, 2016).

**Goal:** The City should retain and enhance the existing natural features and sensitive areas that are essential to a high quality of life in Everson (City of Mount Vernon, 2016).

Policy: The City should ensure new developments do not occur within floodplains (Angus et al., 2020).

Policy: The City should preserve and protect natural ecosystems when considering developments on steep slopes, streams with associated wetlands, and other habitat conservation areas. Low impact recreational access to these areas should be expanded through education and interpretation opportunities while creating a natural buffer around the Nooksack River (City of Mount Vernon, 2016).

Policy: The City should protect and facilitate the restoration or implementation of riparian buffers in order to reduce water temperatures, improve soil stability, and increase habitat for fish and wildlife (City of Mount Vernon, 2016).

Policy: The City should maintain and enhance connectivity corridors within and between open spaces to facilitate the movement of species impacted by climate change (City of Everett, 2015).

## Capital Facilities Element

*Language proposed for the Goals and Policies section of the Capital Facilities Element of the City's Comprehensive Plan (pages 4-4 through 4-2):*

Goal: Minimize impacts to critical areas that will be impacted or created by climate change in planning for existing and future capital facilities.

Policy: Maintain an updated and interactive inventory of existing and future critical areas likely to be impacted by climate change. Wherever adverse impacts to the environment are likely to occur, critical areas ordinance protections should apply and impacts should be considered in approval or location of capital facilities projects (City of Everett, 2020).

Policy: Develop a climate change risk assessment for proposed capital facilities that includes cost evaluation for hazard risks on current or new developments (Snohomish, 2016).

Policy: Expand stormwater management approaches to encourage the development of rain gardens and the use of pervious pavements (City of Everett, 2020).

Goal: Increase energy efficiency of and reduce greenhouse gas emissions from future and current capital facilities.

Policy: Encourage greenhouse gas (GHG) emission reduction through recycling and composting within the City and throughout capital facility locations (City of Everett, 2020).

Policy: Require public facilities to incorporate renewable energy systems into existing or new developments. This is to create efficient and environmentally conscientious infrastructure (City of Bainbridge Island, 2017).

Goal: Develop community resiliency to climate change impacts by developing robust cultural and economic community capital that can adapt to future changes.

Policy: Promote development that utilizes cultural or community facilities with government organizations. Support Nooksack tribal administration in capital facility planning efforts, especially in areas of mutual benefit or concern. Integrate community visions into capital facilities (City of Forks, 2019).

Policy: Promote economic growth by incorporating energy efficient technology, like fiber optics and solar panels, in new and existing development (City of Mount Vernon, 2016).

## Housing Element

*Proposed text to be added to the Planning Assumptions section of the Housing Element:*

(p. 5-1)

This chapter has been developed in accordance with the county-wide planning policies and has been integrated with all other plan elements to ensure consistency throughout the plan. In particular, several assumptions that were developed in the land-use element are also used as the basis for projections in this chapter:

- The population of the Everson UGA will increase from 2,665 in 2013 to 3,907 in the year 2036 (a growth rate of 1.7 percent annually).
- The current Everson average of 3.0 persons per household will be maintained through the planning period.

Additionally, the Housing Element considers ways to ensure Everson's existing and future housing stock are resilient to the observed and projected impacts of climate change while maintaining the City's quality of life and character. For example, the Housing Element encourages infill development which can improve a city's livability, walkability, improve air quality, and reduce greenhouse gas emissions as residents are less dependent on a car to access the interior portions of the city. The Housing Element also plans for housing that is resilient to changing natural hazard conditions, such as increased frequency and intensity of flooding.

*Proposed text to be added to Goal: Encourage the development of housing suitable for middle-income persons and families:*

(p. 5-6)

Policy: Develop in-fill housing on underutilized/vacant parcels, and ensure development is compatible with surrounding communities outside of climate impact zones (City of Mount Vernon, 2016).

Policy: Encourage diverse housing types and designs via zoning regulations that are suitable for a range of household sizes and incomes (City of Bainbridge Island, 2016).

*Proposed text to be added to Goal: Continue to meet the housing needs of lower-income and special-needs people:*

(p. 5-6)

Policy: The City ~~should~~ encourages the development of variable, low impact housing options that increase density such as small detached homes on small lots; accessory units; cottage housing; duplexes; triplexes; row houses; and stacked units on the upper floors of mixed-use, mid-rise buildings within the commercial district.

Policy: The City should allow for ~~explore opportunities for allowing~~ variable, low impact housing options that increase density such as small detached homes on small lots; accessory

units; cottage housing; duplexes; triplexes; row houses; and stacked units on the upper floors of mixed-use, mid-rise buildings in the residential zoning district.

Policy: The City supports the creation of low-impact, affordable housing within walking and bicycling distance of schools, parks, transit service, and commercial centers (Angus et al, 2020).

*Proposed text to be added to Goal: Support healthy residential neighborhoods that reflect a high degree of pride in ownership:*

(p. 5-7)

Policy: The City should incentivize the development of livable neighborhoods where housing is located in close proximity to urban services and existing infrastructure.

Policy: The City will reduce barriers and ease permitting requirements for the installation of renewable energy sources such as solar panels. The City will seek funding to encourage distributed and community solar and other renewable energy programs that increase the City's energy independence.

Policy: The City will develop a plan to create aesthetically pleasing streetscapes and urban forestation that improve water retention and stormwater management. These improved streetscapes will both decrease flooding and improve the visual appeal of Everson while saving taxpayers money long-term.

Policy: The City should require new development to increase compatible density by integrating development into the community in appropriate areas with designs that respect the local character and minimize impacts on critical areas (City of Langley, 2018).

*Additional proposed goal and policies:*

(p. 5-7)

Goal: To ensure that existing and future residential development protects and maintains natural ecosystems and critical areas such as wetlands, streams, and wildlife habitat, and promotes good air quality (City of Port Orchard, 2018).

Policy: The City should encourage innovative design and implement regulations that conserve water, energy, and resources, and minimize impacts of existing and new residences on air quality and climate (Seattle, 2020).

Policy: The City will promote sustainable building techniques (such as those specified under certification like Leadership in Energy in Environmental Design (LEED), Built Green, Salmon Safe, and Living Building Challenge) or low impact development beyond what is required to create healthy, resource-efficient, cost-effective housing options for residents. The City may establish incentives for existing or new residential buildings that opt to use sustainable techniques (City of Bremerton, 2016).

Policy: The City should prioritize review of permits for development or rehabilitation projects incorporating green technology (City of Everett, 2015).

Policy: The City should consider current and projected climate impacts (i.e., increased flooding, drought, erosion; water supply) in planning for new housing. Specifically, the City of Everson will consider projections for flooding and erosion to ensure that new housing developments are outside of floodplains and other critical areas.

Policy: Provide assistance to retrofit housing to reduce the risk from natural hazards such as floods or other environmental or health risks (City of Seattle, 2020).

## Transportation Element

*Proposed text to be added to Transportation Goal: Provide transportation systems that provide convenient and safe access to employment, educational and recreational opportunities for citizens and visitors, and that provide for the movement of goods and services:*

Policy: Create or improve bus stops, bus pullouts, and on-site circulation in areas that have a higher demand for public transportation access (City of Snohomish, 2016).

Policy: Improve existing roads to make streets safer for transit users and non-motorized travelers. Enhance motorized and non-motorized safety through better signage, stop lights/signs, crosswalks, and stoplight cameras (City of Snohomish, 2016).

*Proposed text to be added to Transportation Goal: Coordinate transportation planning and construction with neighboring jurisdictions and with the state:*

(p. 80)

Policy: The City will work with Whatcom Transportation Authority (WTA) to improve transit options. Examples of improvements include expanding the frequency and hours of the existing bus routes, particularly into the evening; promoting the addition of low- and zero-emission buses to WTA's bus fleet; and adding transit stops in or near areas of high-density development to promote public transit use and ridership (Angus et al., 2020).

*Proposed text to be added to Transportation Goal: Encourage energy conservation and minimize impacts to the environment:*

(p. 81)

Policy: The City shall plan for people-centric development that encourages bicycle and pedestrian travel along main streets and through open spaces (Angus et al., 2020).

Policy: The City will allow funding for more fuel-efficient City fleet vehicles, setting a precedent for the community. The City will consider adding electric vehicles to the fleet, as financially and technically feasible, to support good air quality, reduce greenhouse gas emissions, and promote the use of efficient, modern technology.

Policy: The City will investigate the possibility of incorporating electric vehicle charging infrastructure to support zero-emission vehicle options for Everson residents.

*Additional proposed goal and policies:*

(p. 6-4)

Goal: Support the development of a non-motorized transportation network of shoulders, sidewalks, trails, footpaths, and bikeways that connect neighborhoods with schools, green spaces, urban services, and neighboring communities (City of Bainbridge Island, 2016).

Policy: Develop a non-motorized trail system off public roads to promote multimodal and active transportation and to connect all parts of the Everson with the surrounding community.

Policy: Create a locally coordinated system of bikeways and walkways to serve the designated centers and transportation centers. This will increase safety around non-



motorized transportation and encourage various transportation methods (Snohomish, 2016).

Policy: Promote connectivity between pedestrian and bicycle routes within Everson to enhance non-motorized transportation modes.

Policy: The City will work with Whatcom County and other partners to establish and/or expand pedestrian and bicycle trails that connect Everson with destinations throughout Whatcom County.

Policy: Promote the coordination of a walking and non-motorized map which identifies areas of interest within the City (City of Bainbridge Island, 2016).

Policy: Provide adequate street lighting, safety features, and equipment to promote the use of sidewalks and bike trails (City of Bainbridge Island, 2016).

Policy: Develop a connectivity plan for neighborhoods and the city center so that as development occurs, non-motorized route connectivity and circulation are maintained (Bainbridge Island, 2016).

*Proposed text to be added to the Vision of the Transportation Element:*

(p. 6-22)

The vision of the City of Everson is to incorporate a public right-of-way system which supports bicycle, pedestrian, and public transportation travel systems. This system focuses on means to promote healthy living, increasing the safety and well-being of all travelers, mitigating negative environmental impacts, supports the goal of high-density development, and meets the needs of a growing, diverse border city. *A safe, dependable, well-maintained multimodal transportation system that provides good facilities for non-motorized users and pedestrians and good access to transit can reduce congestion, promote public health and livability, support community character, manage stormwater runoff, reduce the City's greenhouse gas emissions and air pollution, and increase the community's resilience to the impacts of climate change.* This system will support a diverse community in which all residents and visitors, regardless of their age, ability, or financial resources, can safely and efficiently use the public right-of-way to meet their transportation needs regardless of their preferred mode of travel.

## Utilities Element

*Language proposed for the Goals and Policies section of the Utilities Element of the City's Comprehensive Plan (page 7-1):*

Goal: Integrate management policies that continue to protect the Nooksack River. Embrace regionalism alongside other jurisdictions neighboring the Nooksack River to protect water resources and important habitat from future flooding and droughts.

Policy: Integrate recreational and infrastructure developments along the river with Nooksack to reduce power and water needs.

Policy: Ensure that water treatment and storage is environmentally friendly and can effectively link with the city of Nooksack.

Policy: Continually improve coordinated facility planning processes among the various utility providers serving Whatcom County (Snohomish, 2016).

Goal: Emphasize energy efficiency in new and existing development by establishing local energy production and infrastructure requirements and by encouraging infill development.

Policy: Incorporate renewable energy generating infrastructure to new and existing civic buildings in Everson.

Policy: Encourage economic and land use policies that prioritize higher density developments to reduce the expansion of utility hardware and keep maintenance costs lower (City of Everett, 2015).

# FERNDALE, WASHINGTON

## COMPREHENSIVE PLAN RECOMMENDATIONS

To support the city of Ferndale in planning for observed and projected climate impacts, a Western Washington University student team has compiled targeted policy language for the following comprehensive plan elements: land use, housing, transportation, capital facilities, parks and recreation, and economic development. The proposed language is adapted from various sources including comprehensive plans from cities and counties such as Bainbridge Island, King County, and Whatcom County as well as the American Planning Association (APA) Climate Change Policy Guide.

### Recommendations

#### Introduction

*Proposed text to be added to the Introduction of the Ferndale Comprehensive Plan (p. 9):*

More-recent short and long-range planning approaches have also sought to clarify the timing and pattern of future growth, and to better-coordinate that growth with infrastructure plans. The City has also sought to emerge from land-use specific zoning regulations to regulations that focus more on overall impact and design. These efforts are expected to result in a more vibrant community that is larger and more diverse than the pre-war Ferndale, but which combines a mix of uses that may resemble those found in Ferndale those many decades ago.

Finally, through this Plan, the City seeks to address the observed and long-term projected impacts associated with a changing climate. The best available science projects that climate change will alter temperature, precipitation, and hydrology patterns and fuel sea level rise in the coming decades. In Whatcom County, these changes have and are projected to continue to increase wildfire risk, degrade air quality, reduce snowpack, reduce streamflow, increase the risk of drought during the summer months, increase landslide risk, increase erosion rates, increase sediment transport, and increase flooding risk in the winter months. Ferndale can also expect to see an increase in its population as people from other areas impacted by climate change move into Whatcom County. Each of the aforementioned impacts will have environmental, public safety, social, and economic consequences within Ferndale. While climate change is projected to affect the way and quality of life in Ferndale, planning for these changes will make the community more resilient in the face of such external stresses.

This Plan uses a “two-pronged approach” to respond to climate change. The first prong, mitigation, lessens the impacts of climate change by reducing the flow of heat-trapping greenhouse gases into the atmosphere. The second prong, adaptation, requires the City to adjust to actual or expected future climate impacts. By utilizing this approach, Ferndale will be prepared to promote the health and economic well-being of community members and protect the natural environment for years to come.

## Land Use Element

(p. 69)

*Proposed text to be added to Overall Land Use Goal: The City of Ferndale strives to provide a healthy balance of residential, commercial, and industrial land uses ~~to ensure~~ that promote a sustainable, resilient ~~the sustainability,~~ financially stable, ~~well-being~~ and high quality of life ~~enjoyed by~~ for the residents of Ferndale.*

*Proposed text to be added to the Goal 3: Residential Land Use Goal - Encourage the development of a wide range of housing types and densities to meet the differing housing needs of Ferndale residents:*

(p. 73)

**Policy I: The City will promote higher-density development near activity centers, including the downtown, public transit lines, commercial areas, and parks (Angus et al., 2020).**

**Policy J: The City will seek to increase the number of residential and mixed-use units in the Downtown area.**

*Proposed text to be added to the Goal 4: Environmental Land Use Goal - Encourage environmentally sensitive areas to be left in a natural state:*

(p. 75)

**Policy I: The City will continue to evaluate long-range growth policies in light of changing environmental and climate conditions and will seek to maintain goals and policies that balance environmental protection, climate mitigation, and responsible growth.**

**Policy K: The City should encourage the use of conservation easements, open space taxation, land acquisition, purchase/voluntary transfer of development rights, and other mechanisms that assist affected property owners to protect high-value natural areas as identified through the GMA planning process, the Natural Heritage Plan, the state Priority Habitats and Species (PHS) program, and other sources (Whatcom County, 2018).**

**Policy L: The City should encourage public education activities that promote the preservation and protection of environmentally critical areas, including vegetation management on properties, downstream impacts from upstream activities, management of invasive plant species, and best management practices for yard maintenance and living by water (City of Langley, 2018, 26).**

## Housing Element

*Proposed text to be added to the Executive Summary of the Housing Element:*

(p. 1)

Though not a requirement of the Growth Management Act, this element also seeks to identify issues that may have an effect on the quality of life of Ferndale residents. Access to recreational opportunities, the impact housing design may have on crime, the ability to grow food or experience the environment in close proximity to housing, and more are examined. **Additionally, the Housing Element considers ways to ensure Ferndale's existing and future housing stock is resilient to observed and projected climate impacts.**

(p. 3)

In many ways, the housing needs required in 2036 will be different from the housing needs of the past. A combination of an aging population, changing housing expectations for younger generations, lower (on average) household sizes, **changing climate conditions and natural hazards**, and the overall densification of the community all mean that housing issues in Ferndale will not be resolved by calculating whether there is sufficient land available for housing. Instead of simply calculating overall land area, the Housing Element seeks to establish measurable goals and policies to ensure that housing in Ferndale meets the needs of the people who live there.

(p. 27)

The concept of infill development encourages development in the interior portions of the City, where development already exists in addition to facilitating development in other parts of the City. Infill development is the opposite of urban sprawl. Urban sprawl spreads out across the landscape and consumes vast quantities of land. Instead of spreading development along the City's periphery, infill development focuses on keeping the City's overall development pattern compact using vacant and underutilized land within the interior of the City. **Infill development can improve a city's livability, walkability, and air quality, and reduce greenhouse gas emissions as residents are less dependent on a car to access the interior portions of the city.** Infill development can also lower the cost of development and the cost of providing infrastructure because it is already provided for in the city.

*Proposed text to be added to Goal 2: Provide opportunities for shared housing:*

(p. 49)

Policy A: Seek to establish an Accessory Dwelling Unit (ADU) regulation which allows the creation of attached or detached residential units **in all residential zones** based on specific development regulations, and reasonable public notification.

**Policy B: Promote variable, low impact housing options that increase density such as small detached homes on small lots; accessory dwelling units; cottage housing; duplexes; triplexes; row houses; and stacked units on the upper floors of mixed-use, mid-rise buildings.**

*Proposed text to be added to Goal 3: Encourage infill development and re-development in existing, older neighborhoods:*

(p. 50)

**Policy D: Incentivize the development of livable neighborhoods, where housing is located in close proximity to urban services.**

*Proposed text to be added to Goal 4: Provide for and encourage the use of Planned Unit Developments to improve the quality of a wide variety of housing projects:*

(p. 50)

**Policy C: Consider current and projected climate impacts (i.e., increased flooding, drought, erosion, water supply) in planning for new housing.**

*Proposed changes to Goal 7: The City will seek to ensure that affordable housing is measured not only by the initial cost of construction or rental rates, but by the actual cost of home ownership and tenancy through the lifetime of the structure:*

(p. 51)

Policy A. The City will ~~consider~~ ~~adopting~~ building codes which provide alternative methods of construction by utilizing renewable energy resources, green building, and greater efficiency in fixtures, heating, and insulation.

Policy D: The City will promote sustainable building techniques (such as those specified under certification like Leadership in Energy in Environmental Design (LEED), Built Green, Salmon Safe, and Living Building Challenge) or low impact development beyond what is required to create healthy, resource-efficient, cost-effective housing options for residents. The City may establish incentives for existing or new residential buildings that opt to use sustainable techniques. (The City of Bremerton, 2016)

*Proposed text to be added to Goal 8: Recognize that affordable housing projects may not yield the same return on investment for developers as a market-rate development and identify incentives or other processes to encourage affordable housing.*

(p. 52)

Policy E. Promote the establishment of affordable, low-impact residential units downtown by reducing obstacles to development. This might include reducing certain impact fees, providing an accelerated permitting process, and other programs. The City will partner with public and private interests to identify funding source(s) to reduce the cost of such development.

## Transportation Element

*Proposed text to be added to the Introduction of the Transportation Element:*

(p. 1)

The Transportation Element provides the framework to guide the growth and development of the City's transportation infrastructure. It also integrates land use and the transportation system by ensuring that all existing and future developments are adequately served. While the automobile related transportation system needs provide the core of the system, the Element also addresses the development of a balanced, multimodal transportation system for the City and adjacent Urban Growth Area (UGA). **A safe, dependable, well-maintained multimodal transportation system that provides good facilities for non-motorized users and pedestrians, and good access to transit, can reduce congestion, promote public health and livability, support community character, manage stormwater runoff, reduce the City's greenhouse gas emissions and air pollution, and increase the community's resilience to the effects of climate change.** The Element also recognizes the regional nature of the transportation system and the need for continuing interagency coordination.

*Proposed text to be added to the Healthy Communities section of the Transportation Element:*

(p. 51)

The City of Ferndale values walking and bicycling as an integral part of a complete transportation system. **The City also recognizes that non-motorized transportation supports better air quality and reduces greenhouse gas emissions.** Ferndale is interconnected by multi-use trails, bicycle lanes, pedestrian walkways, and sidewalks. The City desires to protect, enhance and expand this existing infrastructure to meet pedestrian and bicyclist's needs without unnecessarily encumbering

automobile traffic along major transportation routes. The City’s planning policies and goals encourage safe, barrier-free mobility for all members of the community.

*Proposed text to be added to the Transit section of the Transportation Element:*

(p. 55)

The City should continue to work with WTA to improve transit services and develop a convenient, integrated, and efficient transit system that supports future growth, reduces peak hour congestion and promotes modal options. **A safe, convenient, and dependable public transit system can promote livability and good air quality and reduce greenhouse gas emissions.** Design and construction of roundabouts at intersections in the City needs to also take into account the location of bus stops, access, and pedestrian safety to facilitate access and use.

*Proposed text to be added to the Overall Goal:*

(p. 79)

The City will provide a safe, dependable, properly maintained, multimodal transportation system that promotes economic development and environmental vitality, **minimizes greenhouse gas emissions,** and will explore innovative methods of resolving transportation-related issues.”

*Proposed text to be added to Transportation Goal 1: The City will provide an efficient and safe transportation network to serve existing needs and to accommodate new growth and development:*

(p. 80)

**Policy L: The City will work with Whatcom Transportation Authority (WTA) to improve transit options. Examples of improvements include expanding transit hours, particularly into the evening; and adding transit stops in or near areas of high-density development to promote public transit use and ridership (Angus et al., 2020).**

*Proposed text to be added to Transportation Goal 2: The City will maximize the operating efficiency of its transportation system:*

(p. 80)

**Policy H: The City will seek to utilize a greater capacity of existing roadways to the extent practical prior to expanding the capacity of existing roads through the addition of new lanes.**

*Proposed text to be added to Transportation Goal 5: The City will encourage the use of transportation modes that maximize energy conservation, circulation efficiency, and economy:*

(p. 81)

**Policy O: The City shall plan for people-centric development that encourages bicycle and pedestrian travel along main streets and through open spaces (Angus et al., 2020).**

**Policy P: The City will allow funding for more fuel-efficient City fleet vehicles, setting a precedent for the community. The City will consider adding electric vehicles to the fleet, as financially and technically feasible.**

**Policy Q: The City will investigate the possibility of incorporating electric vehicle charging infrastructure to support zero-emission vehicle options for Ferndale residents.**

*Additional proposed goal and policies:*

(p. 86)

Goal 8: Support the development of a non-motorized transportation network of shoulders, sidewalks, trails, footpaths, and bikeways that connect neighborhoods with schools, green spaces, urban services, and neighboring communities (City of Bainbridge Island, 2016).

Policy A: Develop a trail system to serve non-motorized users within Ferndale.

Policy B: Promote connectivity between pedestrian and bicycle routes within Ferndale to enhance non-motorized transportation modes.

Policy C: The City will work with Whatcom County and other partners to establish and/or expand pedestrian and bicycle trails that connect Ferndale with destinations throughout Whatcom County.

Policy D: Promote the coordination of a walking and non-motorized map which identifies areas of interest within the city (City of Bainbridge Island, 2016).

Policy E: Provide adequate street lighting, safety features, and equipment to promote the use of sidewalks and bike trails (City of Bainbridge Island, 2016).

Policy F: Develop a connectivity plan for neighborhoods and the city center so that as development occurs, non-motorized route connectivity, and circulation are maintained (City of Bainbridge Island, 2016).

## Capital Facilities Element

*Language to be incorporated in the Goals and Policies section of the Capital Improvements Plan. While these goals and policies may be integrated into the existing four sections of Capital Improvement goals and policies, this project recommends establishing a fifth section devoted to climate change mitigation, adaptation, and community resilience:*

(p. 48)

Goal 5: The City will ensure that public facilities and services supporting development are sized and constructed appropriately to serve new development according to anticipated climate change impacts and projected growth. In doing so, the City will continue to provide capital facilities that protect environmentally sensitive areas and offer safe and reliable service (King County, 2016).

Policy A: The City will coordinate the location of new public facilities to interface with new and existing public transportation infrastructure.

Policy B: The City will seek to improve existing capital facilities by making them more energy efficient. This will reduce environmental impacts and lower energy costs over the long-term.

Policy C: The City will seek to improve the cost effectiveness of energy sources utilized by existing capital facilities by installing solar panels, solar thermal systems, or geothermal technologies where possible.

Policy D: The City will construct new public buildings with durable and proven energy efficient technology to save money over the lifetime of the building and reduce environmental impacts.

Policy E: The City will construct new public buildings with the goal of reducing water consumption and decreasing utility costs. Techniques may include, but are not limited to, the use of greywater systems, planting drought tolerant or native landscaping, utilizing high-efficiency fixtures, and more.



Policy F: The City will seek to utilize renewable energy sources where practical and cost-effective to power new capital facilities.

## Parks, Recreation & Trails Master Plan

*Proposed text to be added to Goal C: Environmental Impacts: Parks shall limit impacts on the natural environment:*

(p. 66)

Policy 3: The City shall require that new parks incorporate native plants into the site plan, both through preservation of existing native plants and addition of new native plants.

Policy 4: The City shall reduce energy and water use in parks (Hansen et al., 2017).

Policy 5: The City shall prioritize installation of renewable energy sources to power park facilities (Hansen et al., 2017).

Policy 6: The City shall maintain ecosystem function and habitat in parks (Hansen, et al., 2017).

*Proposed text to be added to Goal F: Promote community involvement and volunteerism: Parks and trails not only shape the community; they are shaped by the community:*

(p. 67)

Policy 8: Work with the Cherry Point industries to adopt a 1,000 Street Trees goal.

*Additional proposed goals and policies:*

(p. 68)

Goal H: Provide and maintain climate resilient park facilities.

Policy 1: The City should anticipate and plan for significant increases in the frequency of flooding along the Nooksack River and tributaries (Whatcom County, 2020).

Policy 2: The City's parks and trail facilities in current and anticipated frequent flooding locations should be designed with flood management, mitigation, and adaptation in mind.

Policy 3: The City should develop a plan for the protection of riparian zones adjacent to current parks and trails using agencies or groups with knowledge and experience in this area (Town of Coupeville, 2012).

Policy 4: The City should locate new parks outside of future hazard prone areas (Hansen et al., 2017).

*Proposed text to be added to Goal C: Linear Parks and Trails should provide visual access to open space, natural areas, and views:*

Policy 7: Anticipate and plan for current and future high standard recreation trails within inundation and flooding areas expected to experience increased flooding in coming decades (Whatcom County, 2020).

## Economic Development Element

*Proposed text to be added to Goal I: RETURN TO DOWNTOWN: Preserve the unique character and historical significance of Downtown Ferndale by promoting an economically healthy and environmentally sustainable downtown that is attractive and offers a variety of retail, residential, office, service, cultural, civic and recreational opportunities:*

(p. 24)

Policy iii: Promote public and private improvements and maintenance to the physical **and natural** environment within downtown that are attractive to customers and visitors.

Policy iv: **Promote density in** ~~Seek to establish unique zoning and land use types within~~ Downtown Ferndale, ~~in particular, encourage~~ **by encouraging** additional residential development within the Downtown core in order to create a vibrant center on days, evenings, and weekends.

**Policy vi. Promote and incentivize the use of green building standards for new and existing developments** (Angus et al., 2020).

**Policy vii. Promote and incentivize new growth in infill locations** (U.S. EPA, 2016).

(p. 26)

*Proposed text to be added to Goal IV: ENVIRONMENT: The growth of Ferndale's economy shall at all times anticipate and mitigate environmental concerns:*

**Policy i:** Consider the recruitment of clean energy or environmental companies to Ferndale to support a more resilient local economy that is based on resources and sectors that will be able to adapt to the impacts of climate projections (Hansen et al., 2017).

**Policy iv:** Encourage and incentivize the installation of solar panels on new and existing businesses in building regulations.

**Policy v:** Encourage installation of green roofs through landscaping and building regulations (Angus et al., 2020).

**Policy vi:** Invest in a food system based on local production that is adaptive to Washington's anticipated climate projections (Hansen et al, 2017).

*Proposed text to be added to Goal VI. DIVERSIFIED ECONOMY: The City seeks to create a local economy that does not depend on a small number of primary industries:*

(p. 27)

**Policy v:** Promote climate-friendly economic development that results in shared economic growth throughout the community (inclusive growth) to combat income inequality and provide increased living standards across all economic sectors and a more resilient economy that will benefit all (Angus et al., 2020).

# LYNDEN, WASHINGTON

## COMPREHENSIVE PLAN RECOMMENDATIONS

To support the city of Lynden in planning for observed and projected climate impacts, a Western Washington University student team has compiled targeted policy language for the following comprehensive plan elements: land use, housing, utilities, capital facilities, and transportation. The proposed language is adapted from various sources including comprehensive plans from cities and counties such as Bainbridge Island, Whatcom County, and King County as well as the American Planning Association (APA) Climate Change Policy Guide.

### Recommendations

#### Introduction and Vision 2036

*Proposed text to be added to the Introduction of the Lynden Comprehensive Plan:*

*(p.3)*

#### *1.2 “Big Picture” Issues*

- **Transportation:** The way that residents are able to move around the city has a big impact on their quality of life. As it grows the city needs to make sure that the new street systems make sense, that congestion is minimized and there are suitable options for mass transit, walking and biking within the city. Lynden is a desirable community to live in. But like any city attempting to manage its growth, good planning plays a huge role in upholding its resident’s quality of life. The city needs to continually take stock of the things that are going well but also identify what should be done better. The Comprehensive Plan is a tool for doing this.
- **Climate Change:** The best available science projects that climate change will alter temperature, precipitation, and hydrology patterns and fuel sea level rise in the coming decades. In Whatcom County, these changes have and are projected to continue to increase wildfire risk, degrade air quality, reduce snowpack, reduce streamflow, increase the risk of drought during the summer months, increase landslide risk, increase erosion rates, increase sediment transport, and increase flooding risk in the winter months. Lynden can also expect to see an increase in its population as people from other areas impacted by climate change move into Whatcom County. Each of the aforementioned impacts will have environmental, public safety, social, and economic consequences within Lynden. For example, decreased snowpack along with hotter, drier summers, will change the amount of water that the community will have access to at certain times during the year. Planning that addresses water conservation will play an important role in ensuring a prosperous future for Lynden and the surrounding agricultural areas. While climate change is projected to affect the way and quality of life in Lynden, planning for these changes will make the community more resilient in the face of such external stresses.

This Plan uses a “two-pronged approach” to respond to climate change. The first prong, mitigation, lessens the impacts of climate change by reducing the flow of

heat-trapping greenhouse gases into the atmosphere. The second prong, adaptation, requires the City to adjust to actual or expected future climate impacts. By utilizing this approach, Lynden will be prepared to promote the health and economic well-being of community members and protect the natural environment for years to come.

(p.15)

#### 1.6.1 Vision Policies

8. The City of Lynden will work with concerned citizens to develop a plan to create aesthetically pleasing streetscapes and urban forestation that improve water retention and stormwater management. These improved streetscapes will both decrease flooding and improve the visual appeal of Lynden, while saving taxpayers money long-term.

12. The City of Lynden will encourage the use of native plants in public greenspaces as a tool for drought tolerant, low maintenance, and low-cost erosion control and stormwater management (Angus et al., 2020).

13. To ensure residents' well-being and protect their way of life, the City of Lynden will work with residents and business owners to prepare for the projected impacts of climate change. Investing in climate resilient infrastructure now will save taxpayers money in the future.

2. **Reduce Sprawl:** *Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.*

2G. The City will consider selling the municipally owned parking lots for appropriate development as a strategy to expand the housing stock while supporting the economy, livability, and density within the city.

## Land Use Element

*Proposed text to be added to the Introduction of the Land Use Element:*

(p. 1)

### 2.1 Introduction

The Land Use Element takes stock of how land is currently being used in Lynden and determines how the land will be used in the future as the City plans for its predicted growth. **Increasing development in Whatcom County is limiting the amount of available land that can be used. It recognizes that land is a finite resource and the manner in which it is developed and used. The development of land and its uses impacts every aspect of the city and community. For example: economic well-being, public safety, roads and utilities, and quality of life, and environmental quality.**

The continued growth within Lynden will obviously impact the look and feel of Lynden. More than 6,400 people are estimated to find their new homes in Lynden over the next 20 years. More than 2,100 jobs will be created over that same time period. Accommodating the **housing, residential, employment, and recreational utility, and environmental** needs for these people will **inevitably** alter the landscape.

## 2.5 Projecting the Next 20 Years

(p. 12)

Phase II - Cities and County are not required to plan for the future based solely upon past trends. Local government goals and policies, public input, infrastructure availability, land **and natural resource** capacity, and other factors are also taken into consideration.

*Proposed text to be added to Goal LU-1: The City of Lynden will establish an Urban Growth Area that provides a supply of land adequate to accommodate projected population and employment growth over the 20-year planning period:*

(p. 16)

Policy 1.1: Establish an Urban Growth Area that supplies a land supply adequate for Lynden's future growth and **considers the potential impact of growth, drought, or potential flooding on critical land areas, while still being consistent with Chapter 2 in is consistent with** the Countywide Planning Policies (Angus et al., 2020).

Policy 1.5: Changes to land uses throughout the City should carefully consider the proximity to urban services necessary to serve the new land use. This may include public transit, shopping and personal services, and adequate public utilities. **Location should also consider the potential impact of runoff from transportation and infrastructure developments into local waterways** (Angus et al., 2020).

(p. 17)

Policy 1.6: Zoning changes, whether they are implemented through the comprehensive planning process or through a site specific rezone, should consider the impacts on the established neighborhoods **and natural areas** surrounding the change. **Water runoff changes, erosion control, water usage and quality changes, and pollution/noise levels should be considered throughout the zoning process** (Angus et.al., 2020).

*Proposed text to be added to Goal LU-2: Phase annexations and development within the Urban Growth Area to ensure consistency with the Vision, Goals, and Policies of this Comprehensive Plan, and prioritize infill development over expansion into agricultural and rural lands:*

(p. 17)

Policy 2.1: The City of Lynden will encourage annexation of land that has been developed in a manner consistent with the goals and purposes of this Comprehensive Plan and the Growth Management Act. **This annexation will be in accordance with the allotment of agricultural land that needs to be maintained around the City of Lynden.** The City of Lynden will review development applications in the Urban Growth Area to encourage development patterns consistent with the Comprehensive Plan **and in consideration of the impact on the local environment, accounting for the potential long-term changes and costs that result from growth. This impact includes the potential for drought/flooding events, erosion changes in the landscape, and paths for runoff and drainage.** (Angus et. al., 2020).

(p. 18)

*Proposed text to be added to Goal LU-4: Ensure that new development maintains the small-town atmosphere and community spirit that define Lynden:*

Policy 4.2 The City of Lynden will consider changes to land use regulations that will help preserve the character and quality of life of the community **while supporting compact, mixed-use infill developments.**

*Proposed text to be added to Goal LU-5: Implement planning and design strategies that promote physical activity and maintain a healthy community:*

Policy 5.1 Provide a variety of outdoor open spaces **consisting of native plant species, which are drought tolerant and low maintenance. These landscapes will ~~that~~ allow for the active and passive enjoyment of all ages (Angus et.al., p.20).**

## Housing Element

*Proposed text to be added to the Introduction of the Housing Element:*

(p.1)

### 3.1.1 The Growth Management Act

As Lynden grows and with the always changing cultural, economic, **environmental**, and social realities, the city's housing needs are also changing. **As Lynden experiences the effects of a changing climate, the City will need to take steps to ensure the existing and future housing stock are resilient to climate impacts.** As the city's demographic profile stabilizes, as housing prices continue to rise, and as the city continues to be attractive as both a retirement community and a great place to raise a young family, the city will need to adapt its new housing options to these realities. Furthermore, as the city makes efforts to increase its density to 5 units/acre it will need to be intentional about considering minimum densities in new developments, supporting multifamily development and look for intelligent ways to promote infill development. **Infill development can improve a city's livability, walkability, and air quality, and reduce greenhouse gas emissions as residents are less dependent on a car to access the interior portions of the city.**

*Proposed text to be added to Goal H-1: Maintain and enhance the quality of existing neighborhoods:*

(p. 10)

Policy 1.1: Establish standards for infill development that ensure compatibility with the character of existing neighborhoods. **Encourage infill housing to promote density close to urban services.**

Policy 1.3: Provide buffers, including **native and/or drought resistant landscaping and urban forestation**, between commercial, industrial, or higher density land uses and existing residential neighborhoods.

**Policy 1.5: Incentivize the development of livable neighborhoods, where housing is located in close proximity to urban services and existing infrastructure.**

**Policy 1.6: Reduce barriers and ease permitting requirements for the installation of renewable energy technologies such as solar panels. The City will seek funding to encourage distributed and community solar and other renewable energy programs that increase the City's energy independence.**

*Proposed text to be added to Goal H-3: Provide for a wide variety of housing types, including low cost housing, for different needs and desires in appropriate locations:*

(p. 10)

Policy 3.5: In order to provide for a wide choice of housing types and costs, the City of Lynden will ~~encourage~~ ~~allow~~, in appropriate areas, alternative residential housing units ~~suitable to a range of household sizes and incomes in a way that is compatible with existing neighborhoods. Such alternatives include~~ ~~such as~~ group and cooperative housing, assisted living facilities, mobile and modular homes, ~~cottage housing development, conservation villages, duplexes and triplexes, tiny houses, and accessory dwelling units.~~

Policy 3.6: The City of Lynden encourages the construction of new ~~low-impact affordable and senior housing, and may allow bonuses such as lesser parking requirements and increased density and/or an accelerated permitting process~~ to encourage this type of housing.

3.9. Redevelopment or infill development that creates new multifamily housing should be ~~permitted~~ ~~encouraged within at the fringes of~~ existing industrial or commercial areas.

~~Policy 3.10: The City of Lynden will consider providing additional housing assistance to vulnerable populations such as the elderly, non-English speaking residents, and low-income residents. The City will partner with public and private interests to identify funding source(s) for such assistance (Angus et al., 2020).~~

*Additional proposed goal and policies:*

(p. 12)

~~Goal 5: To ensure that existing and future residential development protects and maintains natural ecosystems and critical areas such as wetlands, streams, and wildlife habitats (City of Port Orchard, 2018).~~

~~Policy 5.1: Encourage innovative design and implement regulations that conserve water, energy, and resources and minimize impacts of existing and new residences on air quality and climate (City of Seattle, 2020).~~

~~Policy 5.2: Promote sustainable building techniques (such as those specified under certification like Leadership in Energy in Environmental Design (LEED), Built Green, Salmon Safe, and Living Building Challenge) or low impact development beyond what is required to create healthy, resource-efficient, cost-effective housing options for residents. The City may establish incentives for existing or new residential buildings that opt to use sustainable techniques (City of Bremerton, 2016).~~

~~Policy 5.3: Consider current and projected climate impacts (i.e., increased flooding, drought, erosion; water supply) in planning for new housing. Specifically, the City of Lynden will consider projections for flooding and erosion to ensure that new housing developments are located in areas outside of floodplains and other critical areas.~~

## Utilities Element

*Language recommended for addition to Chapter 4 of the City's Comprehensive Plan:*

### *4.3 Utility Goals and Policies*

(p. 62)

To mitigate and adapt to flooding and droughts, water conservation will become more important in Lynden under a changing climate. Water conservation programs could include financial incentives for the installation of solar panels, more efficient water-heating technology, or making the information on how to take on these projects as a resident or business owner easily accessible. The following language for a new goal to section 4.3 proposes a set of supporting policies for water conservation actions.

**Goal U-4: Consider programs for the promotion of cost-saving measures, such as water and energy conservation among residents.**

**Policy 1: Implement education campaigns to teach residents how they can conserve water and energy.**

**Policy 2: Implement programs that incentivize water and energy conservation among residents.**

## Capital Facilities Element

*Language recommended for addition throughout Chapter 5 of the City's Comprehensive Plan:*

(p. 68)

### *5.2.3 Stormwater Utility*

There are several improvement and maintenance projects being planned for in the 20-year planning period. The 6-year CIP has several projects intended to address the capacity of the conveyance system, water treatment, groundwater monitoring, and other issues. The total cost of these projects is approximately \$18,292,000 and will be funded through a combination of local funds, state funding (Department of Ecology) and conservation district funding. The City of Lynden Stormwater Comprehensive Plan is scheduled to be adopted by the City in 2016. **Flood damage is expensive to repair. Flooding is predicted to increase in the face of a changing climate. Thus, it will become more important that the City has a stormwater system capable of handling floodwaters. Without these capabilities, flooding will cause serious and expensive damage to public and private property.**

(p. 70)

### *5.3.1 Parks*

The City is also trustee for the 236 acre Berthusen Park, which is outside the City and UGA limits, but is included in the Parks and Trails Master Plan. Finally, since the adoption of the Park's Master Plan, the City acquired 40 acres on the NW side of town that is located in the UGA but just outside of the current city limits. The property is currently in the planning and development stage for public access. It will be annexed in during the planning period.

**Adding more parkland to Lynden may result in increased stormwater retention, helping mitigate the effects of flooding, which are expected to become more common under a changing climate. Increases in parkland may also yield benefits for property values, recreation opportunities, natural beautification, and improve the health of residents and the natural environment.**



Goal CFP-2: Ensure that essential public facilities are developed in a manner consistent with the character of Lynden and consistent with requirements of state law.

Policy 1C: The City will strategically make municipally-owned parking lots available for development as a strategy to expand the housing stock while supporting the economy, livability, and density within the city.

## Transportation Element

*Proposed text to be added to the Introduction of the Transportation Element:*

(p. 1)

The Transportation Element provides the framework to guide the growth and development of the City's transportation infrastructure. It also integrates land use and transportation by ensuring existing and future developments are adequately supported by the transportation system. The Transportation Element addresses the development of a balanced, multimodal transportation system by recognizing the regional nature of the transportation system and the need for continuing interagency coordination. **A safe, dependable, well-maintained multimodal transportation system that provides good facilities for non-motorized users and pedestrians and good access to transit can reduce congestion, promote public health and livability, support community character, manage stormwater runoff, reduce the City's greenhouse gas emissions and air pollution, and increase the community's resilience to the effects of climate change.**

(p.4)

### **GHG Adopted Resolution 823**

In 2010, Lynden adopted a resolution supporting commitment to the reduction of greenhouse gas emissions for the City. The City recognizes the role that safe, convenient, and dependable non-motorized transportation and public transit can play in reducing a City's greenhouse gas emissions. Additionally, non-motorized transportation and public transit support community livability and walkability and promote good air quality.

*Proposed text to be added to the Goals and Policies Section of the Transportation Element:*

(p. 5)

To develop a transportation system for the City of Lynden that maintains the livability of the community, **promotes good air quality, and prioritizes climate-wise practices** by encouraging the use of alternative modes of transportation; promoting economic wellbeing; ensuring environmental protection; and the safety of the residents, employees, and visitors of the City.

*Proposed text to be added to Goal 2: Land Use Planning, Development Review, and Standards:*

(p. 6)

Policy G: The City shall plan for people-centric development that encourages bicycle and pedestrian travel along main streets and through open spaces (Angus et al., 2020).

*Proposed text to be added to Goal 5: Parking:*

(p. 8)

Policy E: The City will investigate the possibility of incorporating electric vehicle charging infrastructure in public parking facilities to support zero-emission vehicle options for Lynden residents.

*Proposed text to be added to Goal 6: Public Transit and Transportation Demand Management:*

(p. 8)

Policy F: The City will work with Whatcom Transportation Authority (WTA) to improve transit options. Examples of improvements include expanding transit hours, particularly into the evening, and adding transit stops in or near areas of high-density development to promote public transit use and ridership (Angus et al., 2020).

*Proposed text to be added to Goal 7: Implementation and Financing:*

(p. 9)

Policy I: The City will allow funding for more fuel-efficient City fleet vehicles, in response to the City's adopted GHG Resolution 823 and to set a precedent for the community. The City will consider adding electric vehicles to the fleet, as financially and technically feasible, and promote the use of efficient, modern technology.

*Additional proposed goal and policies:*

(p. 9)

Goal 8: Support the development of a non-motorized transportation network of shoulders, sidewalks, trails, footpaths, and bikeways that connect neighborhoods with schools, green spaces, urban services, and neighboring communities (City of Bainbridge Island, 2016).

Policy A: Develop and/or expand a trail system to serve non-motorized users within Lynden.

Policy B: Promote connectivity between pedestrian and bicycle routes within Lynden to enhance non-motorized transportation modes.

Policy C: The City will work with Whatcom County and other partners to establish and/or expand pedestrian and bicycle trails that connect Lynden with destinations throughout Whatcom County.

Policy D: Promote the coordination of a walking and non-motorized map which identifies areas of interest within the City (City of Bainbridge Island, 2016).

Policy E: Provide adequate street lighting, safety features, and equipment to promote the use of sidewalks and bike trails (Bainbridge Island, 2016).

Policy F: Develop a connectivity plan for neighborhoods and the city center so that as development occurs, non-motorized route connectivity and circulation are maintained (Bainbridge Island, 2016).

# NOOKSACK, WASHINGTON

## COMPREHENSIVE PLAN RECOMMENDATIONS

To support the city of Nooksack in planning for observed and projected climate impacts, a Western Washington University student team has compiled targeted policy language for the following comprehensive plan elements: land use, capital facilities, housing, transportation, and economic development. The proposed language is adapted from various sources including comprehensive plans from cities and towns such as Bainbridge Island, Eatonville, Forks, Kalama, Mount Vernon and Seattle, as well as the American Planning Association (APA) Climate Change Policy Guide and the Whatcom County Comprehensive Plan.

### Recommendations

#### Introduction

*Proposed text to be added to the Introduction of the Nooksack Comprehensive Plan:*

(p. 1-1)

Land-use element. This element designates the proposed general distribution, location, and extent of lands for housing, commerce, industry, recreation and open space, ~~and~~ public facilities, and utilities **with careful consideration of floodplain areas.**

(p. 1-1)

Transportation element. This element contains an inventory of transportation facilities and services along with an analysis of future transportation needs. The element also presents a six-year financial plan for ~~transportation~~ improvements **to both motorized and non-motorized transportation.**

(p. 1-2)

A plan written in compliance with the GMA must address in general terms the twenty-year planning period but must also include a detailed financial analysis pertaining to the first six years of that period.

**Through this Comprehensive Plan, Nooksack seeks to ensure adequate land capacity and urban services for at least the next twenty years of growth. In some cases, it addresses a longer time horizon. For example, it addresses the observed and long-term projected impacts associated with a changing climate. The best available science projects that climate change will alter temperature, precipitation, and hydrology patterns and fuel sea level rise in the coming decades. In Whatcom County, these changes have and are projected to continue to increase wildfire risk, degrade air quality, reduce snowpack, reduce streamflow, increase the risk of drought during the summer months, increase landslide risk, increase erosion rates, increase sediment transport, and increase flooding risk in the winter months. Nooksack can expect to see increased intensity and frequency of flooding events; increased occurrence of extreme weather (such as unusually heavy rains and long summer drought periods), which may affect local agriculture, utilities, and quality of life; and increased stress on vegetation and wildlife. Nooksack can also expect to see an increase in its population as people from other areas impacted by climate change move into Whatcom County. Each of the aforementioned impacts will have environmental, public safety, social, and economic**

consequences within Nooksack. While climate change is projected to affect the way and quality of life in Nooksack, planning for these changes will make the community more resilient in the face of such external stresses.

This Plan uses a “two-pronged approach” to respond to climate change. The first prong, mitigation, lessens the impacts of climate change by reducing the flow of heat-trapping greenhouse gases into the atmosphere. The second prong, adaptation, requires the City to adjust to actual or expected future climate impacts. By utilizing this approach, Nooksack will be prepared to promote the health and economic well-being of community members and protect the natural environment for years to come.

## Land Use Element

*Proposed text to be added to the 3. Land-Use Element section, paragraph 1:*

(p. 3-1)

This chapter is a required element of a comprehensive plan developed to meet the provisions of the GMA. It describes how the plan's overall goals will be implemented through land-use mechanisms. In overview, this chapter presents descriptions of the area surrounding Nooksack, an inventory of existing land use, an estimate of future demands for land, and a description of the development that must occur, both inside and outside the existing city, in order to meet future demands. **The policies in the Land Use Element are recommended to meet growth management and revitalization goals while promoting community resilience to a changing climate.**

*Proposed text to be added to the Future Land Use section:*

(p. 3-9)

It is impractical to assume that Nooksack will accommodate growth by somehow increasing densities within the existing developed residential areas. Nooksack therefore intends to meet the mandate of the GMA by ensuring that new developments meet two principles. First, Nooksack will encourage development of suitable unplatted land within city limits before supporting residential annexations. Second, Nooksack will support residential design standards that produce reasonably compact development. Development that occurs according to the standards outlined below will have a density 50 percent higher than now exists in the developed residential zone. **Third, Nooksack will ensure that new development, guided by floodplain projections, promotes connectivity and non-motorized transport use, does not spread onto valuable agricultural areas, and promotes economic growth** (Nooksack Shoreline Master Plan, 2021).

*Additional proposed goals and policies.*

(p. 3-19)

**Goal: The City should encourage mixed-use density close to urban services and the downtown that promotes pedestrian connectivity.**

**Policy: The City should promote increased density by utilizing infill strategies to increase housing types and opportunities close to urban services and outside of climate impact zones (floodplains) (City of Everett, 2015).**

Policy: The City should facilitate the re-investment and rehabilitation of existing housing within residential and mixed-use neighborhoods to maximize infill outside of climate impact zones. (City of Mount Vernon, 2016).

Policy: The City should provide a pedestrian and bicycle network that connects commercial, residential, and open space uses within and between Everson and Nooksack (Whatcom County Council, 2018). This network shall consist of trails, pathways, and widened sidewalks. The commercial uses are intended to primarily serve their surrounding residential areas, and these residents should be able to walk or bike to these areas (City of Mount Vernon, 2016).

Goal: The City should retain and enhance the existing natural features and sensitive areas that are essential to a high quality of life in Everson (City of Mount Vernon, 2016).

Policy: The City should ensure new developments do not occur within floodplains (Angus et al., 2020).

Policy: The City should preserve and protect natural ecosystems when considering developments on steep slopes, streams with associated wetlands, and other habitat conservation areas. Low impact recreational access to these areas should be expanded through education and interpretation opportunities while creating a natural buffer around the Nooksack River (City of Mount Vernon, 2016).

Policy: The City should protect and facilitate the restoration or implementation of riparian buffers in order to reduce water temperatures, improve soil stability, and increase habitat for fish and wildlife (City of Mount Vernon, 2016). Investigate eligibility for the Conservation Reserve Enhancement Program (CREP) (USDA, n.d.).

Policy: The City should maintain and enhance connectivity corridors within and between open spaces to facilitate the movement of species impacted by climate change (City of Everett, 2015).

## Capital Facilities Element

*Language proposed for the Goals and Policies section of the Capital Facilities section of the City's Comprehensive Plan:*

(p. 4-11 through 4-12)

Goal: Develop resilient capital facilities in a manner that directs and controls land-use patterns and intensities while minimizing development affecting climate impact zones.

Policy: Ensure that capital facilities are constructed and/or adapted to predicted environmental changes including more severe storms, increased seasonal flooding, and drought (Hansen 2016).

Policy: Develop a climate change risk assessment for proposed capital facilities that includes cost evaluation for hazard risks on current or new developments (Snohomish, 2016).

Goal: Increase energy efficiency in capital facilities operation and development.

Policy: Adopt and enforce design standards for energy efficient and cost-effective capital facilities systems that enhance the city's appearance and quality (Nooksack City Council, 2016; Hansen, 2016).

Policy: Require public facilities to incorporate renewable energy systems into existing or new developments. This requirement creates efficient and environmentally conscientious infrastructure (City of Bainbridge Island, 2017).

## Housing Element

*Proposed text to be added to the Planning Assumptions section of the Housing Element:*

(p. 5-1)

This chapter has been developed in accordance with the county-wide planning policies and has been integrated with all other plan elements to ensure consistency throughout the plan. In particular, two assumptions that were developed in the land-use element are also used as the basis for projections in this chapter:

- The population of the Nooksack UGA will increase during the planning period, from 1,435 in 2013 to 2,425 in the year 2036 (an average annual growth rate of 2.3%).
- The current Nooksack average of 3.1 persons per household will be maintained through the planning period.

Additionally, the Housing Element considers ways to ensure Nooksack's existing and future housing stock is resilient to the observed and projected impacts of climate change while maintaining the city's quality of life and character. For example, the Housing Element encourages infill development which can improve a city's livability, walkability, and air quality, and reduce greenhouse gas emissions as residents are less dependent on a car to access the interior portions of the city. The Housing Element also plans for housing that is resilient to changing natural hazard conditions, such as increased frequency and intensity of flooding.

*Proposed text to be added to Goal: Support healthy residential neighborhoods that reflect a high degree of pride in ownership:*

(p. 5-5)

Policy: Incentivize the development of livable neighborhoods where housing is located in close proximity to urban services and existing infrastructure.

Policy: The City will reduce barriers and ease permitting requirements for the installation of renewable energy technology such as solar panels. The City will seek funding to encourage distributed and community solar and other renewable energy programs that increase the City's energy independence.

Policy: Develop a plan to create aesthetically pleasing streetscapes and urban forestation that improve water retention and stormwater management. These improved streetscapes will both decrease flooding and improve the visual appeal of Nooksack, while saving taxpayers money long-term.

Policy: New development should increase compatible density by integrating development into the community in appropriate areas with designs that respect the local character and minimize impacts on critical areas (City of Langley, 2018).

*Proposed text to be added to Goal: Strive to preserve, conserve, and enhance the existing housing stock:*

(p. 5-5)

Policy: Strive to ensure the existing housing stock is resilient to severe weather and flooding. Provide assistance to retrofit housing to reduce the risk from natural hazards such as floods or other environmental or health risks (City of Seattle, 2020).

Policy: Encourage infill housing to promote density close to urban services and reduce sprawl.

*Proposed text to be added to Goal: Encourage the development of affordable housing for all income brackets:*

(p. 5-6)

Policy: Allow for and promote variable, low impact housing options that increase density such as small, detached homes on small lots; accessory dwelling units; cottage housing; duplexes; triplexes; row houses; and stacked units on the upper floors of mixed-use, mid-rise buildings.

Policy: Promote the establishment of affordable, low-impact residential units downtown by reducing obstacles to development. This might include reducing certain impact fees, providing an accelerated permitting process, and other programs. The City will partner with public and private interests to identify funding source(s) to reduce the cost of such development.

*Additional proposed goal and policies:*

(p. 5-6)

Goal: To ensure that existing and future residential development protects and maintains natural ecosystems and critical areas such as wetlands, streams, and wildlife habitat (City of Port Orchard, 2018).

Policy: Encourage innovative design and implement regulations that conserve water, energy, and resources and minimize impacts of existing and new residences on air quality and climate (City of Seattle, 2020).

Policy: The City will promote sustainable building techniques (such as those specified under certification like Leadership in Energy in Environmental Design (LEED), Built Green, Salmon Safe, and Living Building Challenge) or low impact development beyond what is required to create healthy, resource-efficient, cost-effective housing options for residents. The City may establish incentives for existing or new residential buildings that opt to use sustainable techniques (City of Bremerton, 2016).

Policy: Prioritize review of permits for development or rehabilitation projects incorporating green technology (City of Everett, 2015).

Policy: Consider current and projected climate impacts (i.e., increased flooding, drought, erosion; water supply) in planning for new housing. Specifically, the City of Nooksack will consider projections for flooding and erosion to ensure that new housing developments are outside of floodplains and other critical areas.

## Transportation Element

*Proposed text to be added to Transportation Goals, Policies, and Objectives:*

(p. 6-1)

Citizen input is a key to identifying the needs of the community. A public meeting was held on September 30, 1993 to present draft transportation goals and objectives. The goals, policies, and objectives in this plan were developed from both the results of that public meeting and subsequent input received from the citizens of Nooksack during the public hearing process. **Additionally, this Plan recognizes that a safe, dependable, well-maintained multimodal transportation system that provides good facilities for non-motorized users and pedestrians and good access to transit can reduce congestion, promote public health and livability, support community character, manage stormwater runoff, reduce the City's greenhouse gas emissions and air pollution, and increase the community's resilience to the effects of climate change.**

*Proposed text to be added to Transportation Goal 2: Encourage energy conservation and minimize impacts to the environment:*

(p. 6-1)

**Policy: The City will plan for people-centric development that encourages bicycle and pedestrian travel along main streets and through open spaces (Angus et al., 2020).**

**Policy: The City will allow funding for more fuel-efficient City fleet vehicles, setting a precedent for the community. The City will consider adding electric vehicles to the fleet, as financially and technically feasible, to support good air quality, reduce greenhouse gas emissions, and promote the use of efficient, modern technology.**

**Policy: The City will investigate the possibility of incorporating electric vehicle charging infrastructure to support zero-emission vehicle options for Nooksack residents.**

*Additional proposed goals and policies:*

(p. 6-3)

**Goal 12: Support the development of a non-motorized transportation network of shoulders, sidewalks, trails, footpaths, and bikeways that connect neighborhoods with schools, green spaces, urban services, and neighboring communities (City of Bainbridge Island, 2016).**

**Policy: Develop a non-motorized trail system off public roads to promote multi-modal and active transportation and connect all parts of Nooksack with the surrounding community.**

**Policy: Promote connectivity between pedestrian and bicycle routes within Nooksack to enhance non-motorized transportation modes.**

**Policy: The City will work with Whatcom County and other partners to establish and/or expand pedestrian and bicycle trails that connect Nooksack with destinations throughout Whatcom County.**

**Policy: Promote the coordination of a walking and non-motorized map which identifies areas of interest within the City (City of Bainbridge Island, 2016).**

**Policy: Provide adequate street lighting, safety features, and equipment to promote the use of sidewalks and bike trails (City of Bainbridge Island, 2016).**

**Policy: Develop a connectivity plan for neighborhoods and the city center so that as development occurs, non-motorized route connectivity and circulation are maintained (City of Bainbridge Island, 2016).**



Goal: Coordinate with Whatcom Transportation Authority (WTA) to improve transit options. Examples of improvements including expanding the frequency and hours of the existing bus routes, particularly into the evening; promoting the addition of low- and zero-emission buses to WTA's bus fleet; and adding transit stops in or near areas of high-density development to promote public transit use and ridership (Angus et al., 2020).

*Proposed text to be added to Existing Conditions section of the Transportation Element:*

(p. 6-12)

The Whatcom Transportation Authority (WTA) provides fixed route bus service to Nooksack. Five in-bound routes and four out-bound routes to and from Bellingham are provided daily. WTA also offers flex-service in Nooksack and the surrounding area where riders who are unable to travel to a bus stop on the fixed route can arrange for a regularly scheduled bus to make a stop at a location within the defined "flex" service areas. **A safe, convenient, and dependable public transit system can promote livability and good air quality and reduce greenhouse gas emissions.**

(p. 6-13)

Bicycles serve many transportation purposes in a community providing low cost mobility as well as recreation. **This Plan also recognizes that bicycle and other non-motorized transportation supports better air quality and reduces greenhouse gas emissions.**

## Economic Development Element

*Proposed text to be added to the Economic Development Element:*

(p. 8-1)

Goal: Maintain and increase access to commercial areas within Nooksack.

Policy: The city should encourage **mixed-use commercial and residential density in the Central Market District to promote pedestrian-oriented businesses destinations.** ~~to locate in the Central Market District.~~

Policy: The city should work with business owners to ensure an adequate supply of on-street and off-street **automobile and bicycle** parking to serve commercial businesses.

(p. 8-2)

Goal: Expand opportunities for industrial development within Nooksack.

Policy: The city should work with Whatcom County to designate additional lands, **outside of the floodplain**, suitable for industrial development to be included in the Nooksack UGA.

Goal: Attract new businesses **and local opportunities** to provide jobs and ~~serve the local community~~ **promote local spending that improves sustainability and quality of life in Nooksack.**

Policy. Create a recurring outdoor market to support local agriculture, encourage small business opportunities and provide employment opportunities (Alonzo, 2017).

Policy. The City encourages and incentivizes the installation of solar panels on new and existing businesses in building regulations.

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