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## CHAPTER 10 CLIMATE CHANGE AND SUSTAINABILITY

### I. Introduction

A Climate Change and Sustainability Background Report prepared for the Comprehensive Plan update provides the basis for the goals and policies in this element. It is available at <https://everettwa.gov/DocumentCenter/Home/View/2756>. The report includes excerpts from recent reports addressing climate change; describes actions the City, other local jurisdictions, the state, and others have taken to address climate change; and includes the regional and countywide policies related to climate change. See this document for more information about existing adopted policies / plans that address climate change impacts and adaptation, including but not limited to the City of Everett Hazard Mitigation Plan, Comprehensive Water Plan, Comprehensive Sewer Plan, Surface Water Comprehensive Plan, and Ordinance No. 2995-07 Adopting a Sustainable Building and Infrastructure Policy.

This element addresses actions the City can take to plan for climate change, reduce greenhouse gas (GHG) emissions and adapt to the impacts of climate change. Note that the federal and state governments have the potential to have a much greater impact with adoption of tools such as emissions taxes, cap and trade programs, and vehicle fuel economy standards.

Everett's greatest impact on emissions reductions will likely be through promoting a dense, compact land use pattern with mixed-uses that support walking, bicycling, and transit use with open space conservation. Compact land use patterns have great potential to reduce GHG emissions related to vehicles and building energy use. The Land Use and Transportation Elements of the Comprehensive Plan set the stage for this vision by directing new development to centers and arterial corridors served by transit, promoting a balanced multi-modal transportation system, and reducing the need to travel by car. In order to achieve the desired land use pattern, the City must compete with other less dense communities and areas closer to Seattle to attract people of all ages to live here. The goals, objectives, and policies in other Elements of the Comprehensive Plan are key to creating a community where people want to live, work and play. Examples include the Urban Design and Historic Preservation Element (preserving historic structures and creating a vibrant, livable community), the Parks Element, and the Economic Development Element (economic health and quality of life policies).

Goals, objectives and policies that specifically address climate change and sustainability are located throughout other elements. For example the Land Use Element contains policies protecting critical areas and air quality, encouraging clean up and redevelopment of brownfields sites, and providing access to healthy food. The Capital Facilities and Utilities Element contains policies for water and energy conservation, solid waste reduction, upgrading the stormwater and combined sewer systems to accommodate increased flows from more frequent extreme storm events, and the use of green stormwater infrastructure to reduce flows and support, enhance and restore natural habitats.

Many of the actions identified in this element benefit multiple city goals. For example, trees, vegetation, and green roofs can reduce heating and cooling energy use and associated air pollution and greenhouse gas emissions, remove air pollutants, sequester and store carbon, help

lower the risk of heat-related illnesses and deaths, improve stormwater control and water quality, reduce noise levels, create habitats, improve aesthetic qualities, and increase property values.<sup>1</sup>

## **II. Goals.**

**Goal 10.1** Improve air quality for present and future generations and reduce the impacts of climate change by reducing greenhouse gas (GHG) emissions.

**Goal 10.2** Integrate land use, transportation, urban design and infrastructure to improve quality of life in the community while increasing densities in transit- and pedestrian-oriented developments in centers and arterial corridors.

**Goal 10.3** Plan for housing and job growth in ways that use fewer resources than we do now.

**Goal 10.4** The city will lead by example and encourage other community stakeholders to commit to actions that optimize reductions in greenhouse gas emissions.

**Goal 10.5** Protect the public interest and involve citizens in climate change decision-making and actions.

**Goal 10.6** Encourage policy decisions and priorities that focus on reducing long-term impacts on natural and human environments.

**Goal 10.7** Establish policies for GHG reduction and climate change adaptation that benefit multiple City goals, such as providing clean air and livable neighborhoods.

**Goal 10.8** Continue to identify the community's vulnerabilities to the impacts of climate change and responses as new information is developed.

**Goal 10.9** Assist vulnerable populations who are disproportionately affected by the impacts of climate change.

**Goal 10.10** Optimize the resilience of natural systems.

## **III. Policies and Potential Implementation Measures**

### **A. Climate Action Plans**

**Policy 10.1** The City should collaborate with other government agencies such as the Puget Sound Regional Council, the Puget Sound Clean Air Agency, the State Department of Ecology, Snohomish County, Snohomish County PUD, other cities and the private sector to develop meaningful strategies for addressing climate change and GHG reductions.

**Policy 10.2** The City should update the Climate Action Plan for Municipal Operations and the City's Hazard Mitigation Plan by adopting GHG emission reduction goals for city operations<sup>2</sup>,

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<sup>1</sup> Environmental Protection Agency (EPA) Website on Urban Heat Islands.

and identifying the actions the City plans to take to reduce GHG emissions and adapt to the impacts of climate change. The Plan should include benchmarks and metrics for use in monitoring implementation and results.

**Policy 10.3** The City should inventory community-wide GHG emissions, and develop an Everett Climate Action Plan that includes goals and recommended actions for community-wide GHG reductions, measures to adapt to the impacts of climate change, responsibility for implementation of the measures, and benchmarks and metrics for monitoring implementation of the plan.

**Policy 10.4** The Climate Action Plans should address cost effective mitigation actions that are focused on reducing GHG emissions and adaptation actions that are focused on policy and operational responses to the effects of climate change, such as sea level rise.

**Policy 10.5** Strategies for adapting to the impacts of climate change should consider both the cost of implementing actions and cost (risk and risk probability) of inaction.

## **B. Public Involvement**

**Policy 10.6** Provide on-going public outreach to educate the community and build support for measures to reduce GHG emissions and adapt to the impacts of climate change.

**Policy 10.7** Participate with media and community groups that educate residents and businesses on the science of climate change, the risks associated with it, the benefits of climate action strategies (such as lower energy bills, lower commuting costs, less traffic congestion, cleaner air, etc.), the potential impacts that behavior changes by individuals and business can have, and the cost of delaying actions.

**Policy 10.8** Strengthen community partnerships that reduce vulnerability and risk.

## **C. Reducing Greenhouse Gas Emissions**

### **1. Land Use and Transportation**

**Policy 10.9** Promote and implement land use and transportation strategies that will reduce GHG emissions by encouraging people to take more trips by transit, walking and bicycling.

**Policy 10.10** Expand planning efforts to encourage higher density transit-oriented mixed-use, mixed-income neighborhoods that are attractive, well designed, enable people to move without reliance on automobiles, and contain a variety of recreation, commercial and service opportunities. See the Land Use Element for areas prioritized for more detailed planning / subarea plans.

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<sup>2</sup> The City's Hazard Mitigation Plan recommends that the emissions reductions targets set out by the U.S. Conference of Mayors, to which Everett is a signatory city, should be adopted as regulations.

Adopt strong regulations for these areas addressing building design, effective street design, and a full range of amenities (e.g., parks / open space, “complete streets”) that attract people of all ages to walk, bike and take transit. Separate pedestrians, bikes, and vehicles whenever possible.

Review PSRC’s Growing Transit Community’s work when developing subarea plans and regulations for light rail stations and areas around regional bus rapid transit stations.

**Policy 10.11** New development should provide pedestrian connections between retail, living, and working places; transit connections and facilities; traffic calming and other safety-related improvements; sidewalks and trails; and pedestrian and bicycle amenities, as feasible or appropriate.

**Policy 10.12** Encourage and support programs such as the Office of Neighborhoods that develop community and provide social benefits that make Everett a more livable and desirable community.

**Policy 10.13** Support programs that increase the health and well-being of residents, such as the Snohomish Health District’s Healthy Communities program that works to prevent chronic diseases by supporting healthy places to live, work and play.

## **2. Buildings and Energy Use**

**Policy 10.14** Reduce GHG emissions through energy efficiency and use of low-carbon energy sources in buildings and site and infrastructure development. Support the State’s goal to construct energy efficient homes and buildings that achieve the goal of building zero fossil-fuel greenhouse gas emission homes and buildings by the year 2031 (RCW 19.27A.020).

**Policy 10.15** Encourage installation of distributed energy resources, which are small-scale power generation technologies, typically in the range of 3 to 10,000 kW, located close to where electricity is used to provide an alternative to or an enhancement of the traditional electric power system.

**Policy 10.16** Create incentives to encourage increased energy efficiency and the use of sustainable building methods and materials, such as those specified under certification systems like LEED, Built Green, Salmon-Safe, Evergreen Sustainable Development Standard, Green Globes and Living Building Challenge. Examples include increased density, priority permit review, partial building permit fee rebates, press releases and awards

**Policy 10.17** Promote the adaptive reuse of existing buildings recognizing the emission-reduction benefits of retaining existing buildings instead of building new ones.

## **3. Solid Waste Reduction**

**Policy 10.18** The City should continue to support neighborhood events such as garage sales that extend the useful life of items, and clean-ups that result in recycling of appliances, metals, yard waste, etc.

**Policy 10.19** Promote eco-industrial development, in which a waste stream from one firm becomes the raw material for another, thus minimizing the use of raw materials.

**Policy 10.20** Encourage local recycling businesses in appropriate locations with appropriate standards.

**Policy 10.21** When buildings must be demolished, encourage the deconstruction of buildings and reuse of salvageable material.

#### **4. Economy**

**Policy 10.22** Promote local purchasing for businesses and residents to support local vendors, services, and stores and to reduce GHG emissions from commerce-related transportation and food production and distribution.

**Policy 10.23** Encourage community gardens, community supported agriculture (CSA) and farmer's markets.

#### **5. Potential Implementation Measures**

- i. Support or provide incentives for electric vehicle charging stations.
- ii. Require or provide incentives for installation of charging equipment in new and remodeled developments.
- iii. Use green stormwater infrastructure and low carbon materials when designing and building infrastructure when feasible.
- iv. Amend the multiple family property tax exemption standards to require increased energy efficiency beyond standard building code requirements.
- v. Apply for grants to develop technical assistance to help owners retrofit historic buildings for energy conservation and use of new technologies, such as solar power.
- vi. Promote tax incentives available for renovation of historic buildings.
- vii. Examine possibilities with Snohomish County PUD to use solar, wind and other non-GHG producing energy sources on a larger scale.
- viii. Develop appropriate regulations that support the installation of distributed systems, such as solar power in appropriate scales and locations.
- ix. Develop regulations that provide solar access or solar easements to ensure that solar systems are not blocked or made less efficient by development on neighboring properties.
- x. Develop regulations for outdoor lighting that reduces electrical usage by directing the light where needed and matching the lighting intensity to the need, as well as encouraging or

requiring energy-efficient light fixtures or smart lighting technology (e.g. sensors and timers ensuring that lights only turn on when needed).

- xi. Strengthen the non-residential energy code beyond that required by the state and advocate for greater energy conservation in building standards.<sup>3</sup>
- xii. Purchase power from renewable sources or directing that a portion of City utility payments be directed toward investments in renewable energy.
- xiii. Continue to expand the City’s municipal electric / hybrid vehicle fleet and vehicles / equipment that use fuels with reduced GHG emissions.
- xiv. Work with Snohomish County PUD and PSE to develop cost effective options to improve energy efficiency, reduce energy consumption and reduce GHGs at City facilities.
- xv. Continue to partner with Snohomish County PUD on community-wide energy efficiency projects, such as retrofits in multiple family structures, when funding is available.
- xvi. Continue to support energy efficiency programs in existing buildings, such as through the Community Housing Improvement Program (CHIP) energy efficiency revolving loan fund. Expand such programs when feasible.

## **D. Adapting to the Impacts of Climate Change**

### **1. General**

**Policy 10.24** As City plans and regulations (Comprehensive GMA, Shoreline Master Program, Sewer, Water, Surface Water, Hazard Mitigation Plans; land use codes, floodplain regulations, building codes, etc.) are updated new information on climate change and its impacts should be reviewed and incorporated as appropriate.

**Policy 10.25** Coordinate with the state and others to develop a common strategy to incorporate analysis of GHG emissions and climate change impacts in State Environmental Policy Act (SEPA) reviews.

### **2. Extreme Storm Events**

**Policy 10.26** Implement the Hazard Mitigation Plan recommendations for assessing the capabilities of the city to deal with severe weather events.

**Policy 10.27** Protect and expand the City’s tree canopy for stormwater management as well as carbon sequestration.<sup>4</sup>

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<sup>3</sup> State statutes allow cities to pass improved non-residential energy code requirements, but prohibit modifying the residential energy code.

<sup>4</sup> Trees reduce stormwater runoff by capturing and storing rainfall in their canopy and releasing water into the atmosphere. Tree roots and leaf litter create soil conditions that promote the infiltration of rainwater into the soil. Trees help slow down and temporarily store runoff.

### 3. Sea level rise

**Policy 10.28** Map the potential impacts of sea level rise in Everett. Evaluate a range of sea level rise scenarios from 1' to at least 3' by the end of the century. Continue to monitor the latest information on sea level rise to adjust scenarios.

**Policy 10.29** Evaluate the effect of soil subsidence on sea level rise in Everett.

**Policy 10.30** Evaluate public and private levees/dikes and facilities that may be impacted by sea level rise and plan for appropriate responses, such as modifications to structures, elevations, or operations; replacements; or relocations.

**Policy 10.31** Evaluate the risk to valuable environmental resources from sea level rise, such as loss of beach and marsh habitats and inundation of Jetty Island, and evaluate options to compensate for impacts to these resources.

**Policy 10.32** Require evaluation of the impacts of sea-level rise for proposed developments and wetland restoration projects near Port Gardner Bay and the Snohomish River estuary and require appropriate mitigation.

### 4. Increased Temperatures

**Policy 10.33** Identify areas where urban heat island effects will be greatest and target these areas for additional tree planting. Also encourage the use of green roofs and green walls, cool roofs, cool pavement, and additional landscaping in these areas.

**Policy 10.34** Plant tree species or varieties known to have a broad range of environmental tolerances.

### 5. Ecosystems Response to Climate Change

**Policy 10.35** Continue to implement programs such as the Green Everett Partnership 20-year Forest Management Plan to control invasive species, plant native species, and develop a long-lived coniferous forest canopy in Everett's parklands.

**Policy 10.36** Encourage the protection and restoration of private forested areas, such as at the Forgotten Creek ravine, and other steep slopes, and stream and wetland buffers.

**Policy 10.37** Encourage the use of native plants to provide habitat for native species that are in decline.

**Policy 10.38** Encourage the reduction in lawn areas since lawns use a disproportionate amount of water in summer when it is scarce, is a monoculture not supportive of native species, and is the source of much of the fertilizer and pesticide run-off from residential and recreation areas.

**Policy 10.39** Encourage methods of landscape design and maintenance and agriculture that reduce or eliminate the use of pesticides, herbicides, and synthetic fertilizers. Provide education to private property owners.

**Policy 10.40** Because wetlands account for 6% of the Earth’s land surface, store 20% of its carbon, purify water, and perform a multitude of other ecological functions, wetlands should continue to be protected and enhanced. Consider the use of transfer of development rights for voluntary protections greater than required by code.

## **6. Public Health**

**Policy 10.41** Identify disproportionate health impacts from climate change – especially for vulnerable populations such as minority, low-income, elderly, very young, and disabled populations. Develop strategies to address these impacts, such as strategies in the City’s Hazard Mitigation Plan to identify neighborhood cooling centers for the elderly and those without air conditioning.

**Policy 10.42** Encourage children to travel to school by bicycling and walking.

**Policy 10.43** Consider using tools such as health impact assessments to improve the health of the community’s lifestyle and living.

## **7. Agriculture and Food Supply**

**Policy 10.44** Monitor the impacts of climate change on agriculture and food supply.

**Policy 10.45** Expand community gardening and urban agriculture opportunities.

**Policy 10.46** Continue to encourage the provision of community space, such as commercial kitchens, for use by community members and start-up agricultural businesses.

**Policy 10.47** Encourage farmer’s markets that sell locally produced food.

## **8. Emergency Planning**

**Policy 10.48** The City’s Office of Emergency Management should continue to consider updated information on climate change and incorporate it into updates of the Hazard Inventory and Vulnerability Analysis and Hazard Mitigation Plans.

## **9. Potential Implementation Measures**

i. Implement the City’s Hazard Mitigation Plan actions related to heat waves, including education, training, and outreach efforts; and identifying city buildings with air conditioning and water than can be used as cooling stations for the elderly and those without air conditioning.

ii. Implement the programs identified in the Hazard Mitigation Plan that increase resilience to the impacts of climate change, such as those related to targeted information and services for non-English language groups, communications during emergencies, increasing the modes and

amount of communication to residents, working with local businesses to disseminate emergency information and supplies to residents, and creating a pedestrian evacuation plan for the Port.