

# NATURAL ENVIRONMENT



## Natural Environment Element Goals and Policies

### INTRODUCTION

This Element contains goals and policies necessary to support the City’s responsibility for protection of the natural environment. Previously, these policies were in the Land Use Element, but were separated into their own element in the 2012 update to support the City’s emphasis on sustainability, with major impetus provided by the 2007 Council goal to “Create an Environmentally Sustainable Community.”

To demonstrate this commitment to sustainability, the City has also signed on to the [U.S. Conference of Mayor’s Climate Protection Agreement](#), the [Cascade Agenda](#), the [Green City Partnerships Program](#), and the [King County- Cities Climate Collaboration](#). In 2008, the City adopted an Environmental Sustainability Strategy and created a Green Team tasked with its implementation. By 2012, the Team completed substantial implementation of the Strategy, including launch of the Forevergreen website at: <http://shorelinewa.gov/forevergreen>.

### Tree City USA

The City created a strategy that will make Shoreline a Tree City USA community effective in 2013. The requirements for becoming a Tree City USA are:

- The development of a Tree Board (function assigned to the Parks, Recreations, and Cultural Services Board);
- A Tree Care Ordinance (Ordinance #627);
- Community Forestry Program with annual budget of at least \$2 per capita (Shoreline exceeds this amount with tree care maintenance in parks and ROW); and
- Arbor Day Observance (2012 observance on November 17).

The City of Shoreline will be presented their official Tree City USA designation in early 2013 by the State of Washington Department of Natural Resources (DNR).

The City is applying for a DNR grant that will help create a long-term communitywide strategy that includes the development of goals and objectives for the urban forest in the community.

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Bee Pollenating Flower

In the concept of urban planning and development, *infill* is the use of land within a built-up area for further construction, especially as part of community redevelopment, growth management, or smart growth. It focuses on the reuse of urban land, rather than developing natural or rural areas.

### GOALS

- Goal NE I.** Minimize adverse impacts on the natural environment through leadership, policy, and regulation, and address impacts of past practices where feasible.
- Goal NE II.** Lead and support efforts to protect and improve the natural environment, protect and preserve environmentally critical areas, minimize pollution, and reduce waste of energy and materials.
- Goal NE III.** Regulate land disturbances and development to conserve soil resources and protect people, property, and the environment from geologic hazards, such as steep slope, landslide, seismic, flood, or erosion hazard areas.
- Goal NE IV.** Protect, enhance, and restore habitat of sufficient diversity and abundance to sustain indigenous fish and wildlife populations.
- Goal NE V.** Protect clean air and the climate for present and future generations through significant reduction of greenhouse gas emissions, to support Paris Climate Accord targets of limiting global warming to less than 1.5° C above pre-industrial levels. Local reduction targets will also promote efficient and effective solutions for transportation, clean industries, and development.
- Goal NE VI.** Manage the stormwater system through the preservation of natural systems and structural solutions in order to:
  - Protect water quality;
  - Provide for public safety and services;
  - Preserve and enhance fish and wildlife habitat, and critical areas;
  - Maintain a hydrologic balance; and
  - Prevent property damage from flooding and erosion.
- Goal NE VII.** Continue to require that natural and on-site solutions, such as infiltration and rain gardens, be proven infeasible before considering engineered solutions, such as detention.
- Goal NE VIII.** Preserve, protect, and where feasible, restore wetlands, shorelines, and streams for wildlife, appropriate human use, and the maintenance of hydrological and ecological processes.
- Goal NE IX.** Use education and outreach to increase understanding, stewardship, and protection of the natural environment.

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**Goal NE X.** Maintain and improve the city's tree canopy.

### POLICIES

#### General

- NE1.** Promote *infill* and concurrent infrastructure improvements in areas that are already developed in order to preserve rural areas, open spaces, ecological functions, and agricultural lands in the region.
- NE2.** Preserve environmental quality by taking into account the land's suitability for development, and directing intense development away from *critical areas*.
- NE3.** Balance the conditional right of private property owners to develop and alter their land with protection of native vegetation and critical areas.
- NE4.** Conduct all City operations to minimize adverse environmental impacts by reducing consumption and waste of energy and materials; minimizing use of toxic and polluting substances; reusing, reducing, and recycling; and disposing of all waste in a safe and responsible manner.
- NE5.** Support, promote, and lead public education and involvement programs to raise awareness about environmental issues; motivate individuals, businesses, and community organizations to protect the environment; and provide opportunities for the community and visitors to practice stewardship, and enjoy Shoreline's unique environmental features.
- NE6.** Provide incentives for site development that minimizes environmental impacts.
- NE7.** Coordinate with other governmental agencies, adjacent communities, and non-profit organizations to protect and enhance the environment.
- NE8.** Continue to identify and map the location of all critical areas and buffers located within Shoreline. If there is a conflict between the mapped location and field information collected during project review, field information that is verified by the City shall govern.
- NE9.** Environmentally critical areas may be designated as open space, and should be conserved and protected from loss or degradation wherever feasible.
- NE10.** Remove regulatory barriers and create incentives to encourage the use of sustainable building methods and materials (such as those

**Critical areas** are parts of the landscape afforded special protection because they provide unique environmental functions that are difficult, if not impossible, to replace, and/or they promote public health, safety, and welfare. The City's development regulations extend protection to the following critical areas: streams and riparian areas, wetlands, aquifer recharge areas, habitat conservation areas, geological and flood hazard areas, and shorelines.



Pinecone

For more information about sustainable site/building certification programs, visit the following websites: **Leadership in Energy and Environmental Design (LEED)** - <https://new.usgbc.org/leed>;  
**Built Green** - <http://www.builtgreen.net>;  
**Salmon-Safe** - <http://www.salmonsafe.org>; and  
**Living Building Challenge** - <https://ilbi.org/lbc>.



Saplings for Sale



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specified under certification systems like *LEED*, *Built Green*, *Salmon-Safe*, and *Living Building Challenge*) that may reduce impacts on the built and natural environment.

**Geological and Flood Hazard Areas**

- NE11.** Mitigate drainage, erosion, siltation, and landslide impacts, while encouraging native vegetation.
- NE12.** Seek to minimize risks to people and property in hazard areas through education and regulation.
- NE13.** Research information available on tsunami hazards and map the tsunami hazard areas located in Shoreline. Consider the creation of development standards and emergency response plans for tsunami hazard areas to minimize tsunami-related impacts.
- NE14.** Inform landowners about site development, drainage, and yard maintenance practices that affect slope stability and water quality.
- NE15.** Develop technical resources for better understanding of overall hydrology, and utilize innovative approaches to resolve long-standing flooding issues.
- NE16.** Prioritize the resolution of flooding problems based on public safety risk, property damage, and flooding frequency.
- NE17.** Promote public education and encourage preparation in areas that are potentially susceptible to geological and flood hazards.

**Vegetation Protection**

- NE18.** Develop educational materials, incentives, policies, and regulations to conserve native vegetation on public and private land for wildlife habitat, erosion control, and human enjoyment. The City should establish regulations to protect mature trees and other native vegetation from the adverse impacts of residential and commercial development, including short-plat development.
- NE19.** Minimize removal of healthy trees, and encourage planting of native species in appropriate locations.
- NE20.** Minimize clearing and grading if development is allowed in an environmentally critical area or critical area buffer.
- NE21.** Identify and protect wildlife corridors prior to, during, and after land development through public education, incentives, regulation, and code enforcement.

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**NE22.** Encourage the use of native and low-maintenance vegetation.

### Wetlands and Habitat Protection

**NE23.** Participate in regional species protection efforts, including salmon habitat enhancement and restoration.

**NE24.** Preserve critical wildlife habitat, including those identified as *priority species or priority habitats* by the Washington Department of Fish and Wildlife, through regulation, acquisition, incentives, and other techniques. Habitats and species of local importance will also be protected in this manner.

**NE25.** Strive to achieve a level of no net loss of wetlands function, area, and value within each drainage basin.

**NE26.** Restore existing degraded wetlands where feasible.

**NE27.** Focus on wetland and habitat restoration efforts that will result in the greatest benefit for areas identified by the City as priority for restoration.

### Streams and Water Resources

**NE28.** Support and promote basin stewardship programs to prevent adverse surface water impacts, and to identify opportunities for watershed improvements.

**NE29.** Stream alterations, other than habitat improvements, should only occur when it is the only means feasible, and should be the minimum necessary.

**NE30.** Identify and prioritize potential stream enhancement projects through surface water basin planning and its public participation process. Enhancement efforts may include *daylighting* of streams that have been diverted into underground pipes or culverts, removal of anadromous fish barriers, or other options to restore aquatic environments to a natural state.

**NE31.** Work with citizen volunteers, state and federal agencies, and Indian tribes to identify, prioritize, and eliminate physical barriers and other impediments to anadromous fish spawning and rearing habitat.

**NE32.** Preserve and protect natural surface water storage sites, such as wetlands, aquifers, streams, and water bodies that help regulate surface flows and recharge groundwater.

**NE33.** Conserve and protect groundwater resources.

**The Priority Habitats and Species (PHS) Program** fulfills one of the most fundamental responsibilities of the Washington Department of Fish and Wildlife (WDFW) – to provide comprehensive information on important fish, wildlife, and habitat resources to local governments, state and federal agencies, private landowners and consultants, and tribal biologists for land use planning purposes.

**Daylighting** is the redirection of a stream into an above-ground channel, typically to restore it to a more natural state. Daylighting is intended to improve the riparian environment for a stream that had previously been diverted into a culvert, pipe, or a drainage system.

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**Greenhouse gases** allow sunlight to enter the atmosphere freely. When sunlight strikes the Earth's surface, some of it is reflected back towards space as infrared radiation (heat). Greenhouse gases absorb this infrared radiation and trap the heat in the atmosphere.

**Climate change** is a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions, or in the number of extreme weather events. Climate change is caused by factors that include oceanic processes (such as oceanic circulation), variations in solar radiation received by Earth, plate tectonics and volcanic eruptions, and human-induced alterations of the natural world.

**Adaptive management** involves making decisions about how to use resources based on data that are often incomplete or uncertain. Adaptive management focuses on learning from previously performed activities and applying what you have learned to new projects, and on using active and passive adaptive management strategies in order to make effective decisions.

- NE34.** Provide additional public access to Shoreline's natural features, including the Puget Sound shoreline. The City will attempt to reach community and neighborhood agreement on any proposal to improve access to natural features where the proposal has the potential to negatively impact private property owners.
- NE35.** Educate the public on best management practices regarding use of pesticides and fertilizers to prevent run-off of chemicals and pollution of water bodies.

### Clean Air and Climate Protection

- NE36.** Support federal, state, and regional policies intended to protect clean air in Shoreline and the Puget Sound Basin.
- NE37.** Advocate for expansion of mass transit and encourage car-sharing, cycling, and walking to reduce greenhouse gas emissions, and as an alternative to dependence on automobiles.
- NE38.** Reduce the amount of air-borne particulates through continuation and possible expansion of the street-sweeping program, dust abatement on construction sites, education to reduce burning of solid and yard waste, and other methods that address particulate sources.
- NE39.** Support and implement the Mayor's Climate Protection Agreement, climate pledges and commitments undertaken by the City, and other multi-jurisdictional efforts to reduce *greenhouse gases*, address *climate change*, sea-level rise, ocean acidification, and other impacts of changing of global conditions.

### Sustainability

- NE40.** Establish policy decisions and priorities considering long-term impacts on natural and human environments.
- NE41.** Lead by example and encourage other community stakeholders to commit to sustainability. Design our programs, policies, facilities, and practices as models to be emulated.
- NE42.** Recognize that a sustainable community requires and supports economic development, human health, and social benefit. Make decisions using the "triple bottom line" approach to sustainability (environment, economy, and social equity).
- NE43.** Promote community awareness, responsibility, and participation in sustainability efforts through public outreach programs and other opportunities for change. Serve as catalyst and facilitator for partnerships to leverage change in the broader community.

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- NE44.** Apply *adaptive management techniques* and clearly communicate findings to the Shoreline community: individuals, businesses, non-profits, utilities, and City decision-makers. Use analytical and monitoring tools with performance targets to evaluate investments.
- NE45.** Design natural infrastructure into projects whenever feasible to *mimic* ecological processes.
- NE46.** Create incentives to encourage enhancement and restoration of wildlife habitat on both public and private property through new and existing programs, such as the *Backyard Wildlife Habitat stewardship certification program*.

**Biomimicry** is the examination of nature, its models, systems, processes, and elements to emulate or take inspiration from, in order to solve human problems.

A homeowner may register through the **Backyard Wildlife Habitat stewardship certification program** if they can demonstrate provision of food and water sources, cover, and places for animals to raise their young. Thanks to the efforts of the Sustainable Shoreline Education Association, the City was certified as a Community Wildlife Habitat in 2010.



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**SHORELINE**

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