Natural Environment Element

Background and Analysis

Purpose and Relationship to GMA

The purpose of the Natural environment element is to expand upon the community's commitment to stewardship of natural resources, as expressed in the Vision Statement, and to provide a policy basis for City decisions which affect the natural environment.

The Natural Environment Element is not a required element under the Growth Management Act, but the GMA contains the following goal concerning the environment:

"Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water."

Moreover, the Act contains specific requirements for the designation and protection of "critical areas," defined by the Act as wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas and geologically hazardous areas. The Act requires jurisdictions to adopt policies and implementing regulations to ensure the protection of critical areas. In addition, the Central Puget Sound Growth Management Hearings Board has ruled that "the land speaks first," thus assigning pre-eminence to protection of these areas and avoidance of incompatible development. Three inter-related requirements implement the GMA mandate: 1) the requirement to "include the best available science" when designating and protecting critical areas; 2) the requirement to give special consideration to the preservation or enhancement of anadromous fisheries; and 3) the requirement to adopt development regulations that protect the functions and values of critical areas.

In compliance with the Act, the Bothell City Council has adopted the Interim Critical Areas Regulations Ordinance (ICAO) in December, 1996. The ICAO was revisited for compliance with the Plan, modified and adopted as the final Critical Areas Ordinance (CAO) in March, 1996. As of the 2004 Plan Update, amendments to the critical areas regulations were being considered to address the requirements of the GMA to that include consideration of best available science and give special consideration to the...
In 1995 the Growth Management Act was amended to add the goals and policies of the state Shoreline Management Act as one of the goals of the GMA. The amendment also required that goals and policies of individual jurisdictions' Shorelines Master Programs be considered an element of those jurisdictions' comprehensive plans. The City of Bothell has elected to meet this requirement by incorporating the goals and policies of the Bothell Shorelines Master Program into a separate element called the Shorelines Master Program Element.

In March of 1999, the United States National Oceanic and Atmospheric Administration, Fisheries Service listed the Chinook, or King, Salmon as a threatened species under the Federal Endangered Species Act (ESA) due to declining populations and diminishing returns of spawning adult fish. In December of 1999, the United States Department of Fish and Wildlife Service listed the Bull Trout as a threatened species under the Federal Endangered Species Act (ESA) due to declining populations. Chinook Salmon habitat within the Planning Area includes the Sammamish River and North Creek. Bull Trout typically prefer habitat conditions that are not currently present within the planning area and it is unlikely that—It is not known if Bull Trout inhabit the planning area.

A special rule, termed a "4(d) Rule", was issued by the National Marine Fisheries Service (NMFS) on June 20, 2000. This rule contains performance criteria for a wide-range of city operations and activities whose intent is to reduce harm to Chinook Salmon and its habitat. City programs and activities affected by the rule include parks maintenance, stormwater control, habitat restoration, habitat acquisition, adaptive management, road maintenance, municipal, commercial, industrial, and residential (MRCI) development, public education and other programs.

In February of 2000, the City entered into an inter-local agreement with King County and 25 other jurisdictions within the Greater Lake Washington Watershed to conduct Watershed Resource Inventory Area (WRIA 8) planning. The WRIA 8 Salmon Recovery Plan was adopted by the City Council in September 2005 and is being implemented as a watershed-wide effort throughout the area. This WRIA planning activity allows jurisdictions to pool resources for the hiring of staff, experts, and consultants to provide an overall watershed-wide plan for the preservation and recovery of Chinook and other salmon species. The WRIA plan is anticipated to be completed in 2005.

In January 2013, the Department of Ecology approved a comprehensive update of the Bothell Shoreline Master Program (SMP). The SMP contains a number of goals, policies and regulations which govern land use, development, activities, and other conditions of the Sammamish River, North Creek and Swamp Creek and all lands within the 100 year flood plain (one percent chance of flood), associated wetlands, and all lands within 200 feet of the ordinary high water mark of those water bodies. The City of Bothell has chosen to incorporate the goals and policies of the Bothell Shorelines Master Program into an element of the Imagine Bothell... Comprehensive Plan titled the "Shorelines Element". Implementing regulations of the Shoreline Element goals and policies are incorporated into the Bothell Municipal Code within Title 13.

Planning Area Profile

The natural environment of any community is a system of related components - air, water, soil, plants and animals. Each natural component impacts the others in some way and all are affected by human activities. A primary intent of environmental and land use regulations is to ensure that the relationship between human activities and the natural environment is a mutually supportive one that balances competing objectives to the maximum extent possible.
Like the Puget Sound region in general, the land form of the planning area was created by repeated glacial created advance and retreat and subsequent erosion and sedimentary accretion. The Planning Area today consists of portions of five steep-sided north-south trending hills—Norway Hill, Finn Hill, West Hill, Beckstrom Hill and Bloomberg Hill.

Substantial portions of Norway and Finn these hills are susceptible to landslides, due to the underlying geology, soil type, slope gradient steepness and pervasive springs.

Rainfall typically collects in numerous small wetlands prior to draining off the hills through small streams. These streams may be intermittent or permanent, and commonly have carved ravines in the hillsides.

Drainage from the hills tends to collect in larger wetlands in the valleys before releasing to the Planning Area’s primary watercourses. These include Juanita Creek, Swamp Creek, Horse Creek, North Creek and the Sammamish River.

The steep hillsides and waterways comprise a potential network of open space corridors which allow wildlife to move relatively freely among nesting and foraging areas, and provide humans with visual relief from the built environment. The Land Use Element contains policies which promote preservation of these open space corridors and urban separators.

The following pages consist of maps depicting the general location and extent of the various types of critical areas within the Planning Area. These maps include:

- Figure NE-1 Landslide Prone Deposits
- Figure NE-2 Erosive Soils
- Figure NE-3 Liquefaction Prone Deposits
- Figure NE-4 Wetlands, Streams and Drainage Basin Boundaries
- Figure NE-5 Frequently Flooded Areas

Staff 3/12/14 - Attached to the Natural Environment Element are six Figures:
- Figure NE-1 Landslide Prone Deposits
- Figure NE-2 Erosive Soils
- Figure NE-3 Liquefaction Prone Deposits
- Figure NE-4 Wetlands, Streams, Drainage Basins
- Figure NE-5 Frequently Flooded Areas
- Figure NE-6 Composite Critical Areas

Staff is proposing that Figure NE-6 Composite Critical Areas be removed from this Element because Figure NE-6 appears to illustrate that the majority of the City (80%) is either one type of Critical Area or another. This is simply not the case because the majority of land within the City is not a critical area. Figure NE-6 misrepresents the actual on-the-ground conditions, causes confusion and should be removed.

PC 3/12/14 - PC concurs

Figure NE-6 Composite Critical Areas

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Critical areas are present throughout the Planning Area. Approximately 20 per cent of the Planning Area constitutes critical areas and their buffers as defined by the Critical Areas Ordinance.

Development of Goals, Policies, and Actions

The following Goals, policies and actions were collaboratively developed by the City Council, Planning Commission, Shorelines Board and interested citizens. These were originally adopted in 1994 as part of the overall Comprehensive Plan, and amended in 1996 and 2004. Please reference the Land Use Element, Shorelines Element, and the Parks and Recreation Element for goals, policies and actions affecting open space within the natural environment.

These goals and policies also incorporate language to conserve plants and animals listed as threatened or endangered under the Endangered Species Act and to implement greenhouse gas emission reduction and climate change strategies.
Natural Environment
Goals, Policies and Actions

Goals

NE-G1 To achieve a harmonious relationship between the built and natural environments.

NE-G2 To promote community-wide stewardship of the natural environment for future generations through identification, protection, preservation/conservation, and enhancement of those natural environment features which are most sensitive to human activities and which are critical to fish and wildlife survival and proliferation.

NE-G3 To preserve open space corridors to provide lands that are useful for recreation, wildlife habitat, trails and connections of critical areas.

Staff 2/26/14 - Staff proposed a new goal that would identify the City’s desire to reduce consumption of natural resources and greenhouse gas emissions is appropriate given the emphasis on greenhouse gas emission reduction efforts of the King County County-Wide Planning Policies, the City of Bothell’s CO2OL Program and a proposal to re-locate a number of Conservation Policies and Actions from the Utilities and Conservation Element.

Further, in future hearings, the Planning Commission will receive a staff recommendation that proposes to reduce the size of the Comprehensive Plan by re-locating to other elements those goals, policies and actions related to conservation that are currently housed within the Utilities and Conservation Element. The GMA requires a Utility Element, but does not require a Conservation Element though the GMA does contain goals related to conservation and both the Snohomish and King County Countywide Planning Policies identify the need for conservation policies.

PC 2/26/14 - At its February 26, public hearing on the Natural Environment Element the Planning Commission identified that the initial staff proposed goal (NE-G4) would have covered a much broader range of parameters than those ordinarily associated with a Natural Environment Element. For example, efficient mass transit, compact urban development and green buildings go beyond the typical realm of Natural Environment goals and policies and may be more appropriate within the Transportation, Land Use, and Urban Design Elements, respectively.

Staff 3/12/14 - Staff has provided, verbatim, for the Planning Commission’s use, the introduction and policies of the King and Snohomish County Countywide Planning Policies regarding Environment Policies involving air quality and climate change below:

*King County - Air Quality and Climate Change*

Greenhouse gas emissions are resulting in a changing and increasingly variable climate. King County’s snow-fed water supply is especially vulnerable to a changing climate. Additionally, the patterns of storm events and river and stream flow patterns are changing and our shorelines are susceptible to rising sea levels. Carbon dioxide reacts with seawater and reduces the water's pH, threatening the food web in Puget Sound. While local governments can individually work to reduce greenhouse gas emissions, more significant emission reductions can only be accomplished through countywide coordination of land use patterns and promotion of transportation systems that provide practical alternatives to single occupancy vehicles. Efficient energy consumption is both a mitigation and an adaptation strategy. Local
governments can improve energy efficiency through the development of new infrastructure as well as the maintenance and updating of existing infrastructure.

**EN-16** Plan for land use patterns and transportation systems that minimize air pollution and greenhouse gas emissions, including:
- Maintaining or exceeding existing standards for carbon monoxide, ozone, and particulates;
- Directing growth to Urban Centers and other mixed use / high density locations that support mass transit, encourage non-motorized modes of travel and reduce trip lengths;
- Facilitating modes of travel other than single occupancy vehicles including transit, walking, bicycling, and carpooling;
- Incorporating energy-saving strategies in infrastructure planning and design;
- Encouraging new development to use low emission construction practices, low or zero net lifetime energy requirements and "green" building techniques; and
- Increasing the use of low emission vehicles, such as efficient electric-powered vehicles.

**EN-17** Establish a countywide greenhouse gas reduction target that meets or exceeds the statewide reduction requirement that is stated as the 2050 goal of a 50 percent reduction below 1990 levels.

**EN-18** Establish a greenhouse gas emissions inventory and measurement framework for use by all King County jurisdictions to efficiently and effectively measure progress toward countywide targets established pursuant to policy EN-17.

**EN-19** Promote energy efficiency, conservation methods and sustainable energy sources to support climate change reduction goals.

**EN-20** Plan and implement land use, transportation, and building practices that will greatly reduce consumption of fossil fuels.

**EN-21** Formulate and implement climate change adaptation strategies that address the impacts of climate change to public health and safety, the economy, public and private infrastructure, water resources, and habitat."

PC 2/26/14 - The Planning Commission also requested to see any Snohomish County Countywide Planning Policies regarding climate change, greenhouse gas emissions and air quality. Though not as extensive or specific as the King County Policies the Snohomish County Policies do identify the need to adopt climate change, greenhouse gas emission and air quality policies into local Plans. The Snohomish County Policies are provided below verbatim:

"**Snohomish County - The Natural Environment Goal**
Snohomish County and local jurisdictions will act as a steward of the natural environment by protecting and restoring natural systems, conserving habitat, improving air and water quality, reducing greenhouse gas emissions and air pollutants, and addressing potential climate change impacts. Planning for the future will embrace sustainable ways to integrate care of the environment with economic and social needs.

**Env-6** The County and cities shall collaborate with regional and state agencies on initiatives to ensure that air quality meets or is better than established state and federal standards. Any initiatives which exceed established state and federal standards shall be voluntary between jurisdictions and are not required by Env-6.
Env-7 The County and cities should support the implementation of the state’s climate change initiatives and work toward developing a common framework to analyze climate change impacts when conducting environmental review under SEPA.

Env-8 The County and cities should establish and/or support programs to reduce greenhouse gas emissions and to increase energy conservation and alternative/clean energy among both public and private entities.

Env-9 The County and cities should use natural systems to reduce carbon in the atmosphere by establishing programs and policies that maintain and increase forests and vegetative cover.

Env-10 The County and cities should establish a planning framework in local plans and coordinate regionally to anticipate, prepare for, and adapt as necessary to likely impacts of climate change.”

Because the King County Countywide Planning Policies are more definitive than the Snohomish County Countywide Planning Policies regarding climate change and air quality, the default approach taken in the 2015 Periodic Update to the Imagine Bothell-Comprehensive Plan should be to craft the Natural Environment Element Policies to be consistent with the King County Countywide Planning Policies with some modification to accommodate Snohomish County CWPs.

Staff 3/12/14 - Staff is proposing a complete re-write of the 2/26/14 proposed new Goal NE-G4, by focusing the new goal on the broader issues of: 1) energy resource consumption; 2) greenhouse gas emissions; and 3) improved air quality.

The Planning Commission correctly identified the initial approach was confusing because it attempted to address too many definitive parameters - many of which are most appropriate as policies or even as policies located within other Elements.

More information is contained on later pages of this document.

PC 3/12/14 - The Planning Commission identified a preference to focus climate change and greenhouse gas emission goals, policies and actions upon on those activities the City of Bothell has the authority to influence. For example, the City can implement land use policies to encourage compact urban development, transportation policies that promote non-motorized forms of transportation, encourage transit use, and urban design policies that incentivize green building construction and allow wind and solar energy production. But, the City has little or no influence upon activities such as automobile/truck emissions standards, pollution standards promulgated by the Puget Sound Clean Air Authority, and other similar activities which are beyond the authority of the City to regulate. Further, activities occurring in an adjacent “upwind” jurisdiction can have a significant impact upon Bothell’s air quality.

Finally, the Planning Commission believes the City should not craft policies that would potentially drive away or prohibit important economic activities such as manufacturing and/or research processes, as a means to comply with greenhouse gas emission standards.

Accordingly, the Planning Commission recommends the climate change goals, policies, and actions placed within the Natural Environment Element should be those types of activities under the control of the City of Bothell.

Staff 4/9/14 - Staff has made numerous changes to the proposed climate change and greenhouse gas emission reduction policies and actions to implement these and other Planning Commission directions. However, it must be noted that these types of policies are required by both the King and Snohomish
**Policies**

Applicable to multiple features of the Natural Environment

**NE-P1** Encourage the concentration of urban land uses in areas with minimal environmental constraints in order to reduce the amount and/or rate of urban intrusion into natural areas.

**NE-P2** Consider the natural carrying capacity of lands in the review of any proposal involving an intensification of land use.

**NE-P3** Adopt and maintain critical areas regulations which include best available science to protect natural topographic, geologic, vegetation, fish and wildlife habitat, and hydrologic features, with special consideration given to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

**NE-P4** When an alteration to a critical area is proposed, such alteration shall be avoided, minimized or compensated for in the following sequential order of preference:

- Avoiding the impact altogether;
- Minimizing the impact;
- Rectifying the impact;
- Minimizing or eliminating the hazard, where the critical area poses a hazard (such as a landslide area);
- Reducing or eliminating the impact over time;
- Compensating for the impact;
- Monitoring the mitigation and taking remedial action where necessary.

**NE-P5** Prohibit the introduction of invasive plant and animal species in natural areas which would tend to degrade the natural systems present and require the use of indigenous plant species whenever restoration or enhancement occurs.

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**Staff 2/26/14** - A minor revision is proposed below to identify that the City should consider all potential options. This language is consistent with language within the Shorelines Element.

**PC 2/26/14** - The Planning Commission prefers the words "all reasonably viable" because it better conveys the concept that the City will use all achievable options rather than "all potential".

**NE-P6** The City should consider all reasonably viable options, when presented, to preserve passive and active open space.

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NE-P7 - By 2009 or sooner, update the Shorelines Master Program. Review Shorelines designations along North Creek and the Sammamish River for consistency with the goals and policies of this Natural Environment Element, other Planning Area-wide elements and subarea plans.

Fish and wildlife

NE-P8 - Preserve, protect, restore and enhance the Sammamish River and North Creek and their tributaries as fish and wildlife habitat by implementing the goals and policies as contained in this Element, the Parks and Recreation Element, the Shorelines Master Program Element, the Land Use Element, and best available science, and the following special objectives:

Staff 2/26/14 - The objectives expressed below are addressed elsewhere within either this Element or the updated Shorelines Element. Continuing to include these policies within this Element is duplicative.

It should be noted that not all references to the Sammamish River, North Creek and Swamp Creek should be removed from this Element because many "upland" activities located substantial distances away can have impacts upon to the quality and health of these water bodies.

PC 2/26/14 - The Commission concurred.

For the Sammamish River:
- Protect, restore and create cold water resources in the Sammamish River and its tributaries.
- Investigate alternative methods to address the impacts to salmon of increased temperatures in the Sammamish River.
- Improve fish access through the Sammamish River system.
- Enhance channel complexity, connectivity, and riparian conditions.
- Reduce surface and groundwater withdrawals that reduce river flow and groundwater seeps and provide for a more natural hydrologic regime.
- Reduce runoff and fine sediments entering the river.
- Understand and reduce impact of low dissolved oxygen and contaminants on salmon in the Sammamish River.

For North Creek and its tributaries:
- Provide unimpeded access to all potential natural spawning and rearing habitats for all life stages of salmon.
- Protect existing stream channel complexity and floodplain and longitudinal connectivity and restore channel and floodplain connectivity where necessary.
- Protect and restore a more natural hydrologic regime.
- Reduce runoff and fine sediments.
- Reduce accelerated streambank erosion.
- Maintain and restore a more natural temperature regime.
- Protect and restore riparian habitats.
- Reduce nutrient and chemical pollutant loading and reduce impacts on salmon.

PC 2/26/14 - The Commission expressed a desire to use a broader term (e.g. salmon, plants, or animals) when recognizing plants and animals that may currently be listed or may be listed in the future as endangered, threatened or sensitive instead of specifically listing Chinook salmon and Bull trout. In other words, there are many other plants and animals that are listed by the State Department of Wildlife as monitor, threatened, and endangered (e.g. Western Pond Turtle, Pacific Salamander).

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Staff 3/12/14 - The real difference is that the 1999 listing of Chinook salmon and the 2001 listing of Bull trout comes under the auspices of the Endangered Species Act (ESA) which carries a much greater legal and regulatory burden than listings by the State.

Staff recommends policy NE-9 continue to specifically identify Chinook salmon and Bull trout because: 1) they are a listed species under the ESA; and 2) that listing carries a substantial legal and regulatory responsibility and the inclusion of this policy helps the City meet those responsibilities.

Staff further believes that this policy adequately acknowledges that other plant and animal species may be listed in the future. An additional mention does not appear to be warranted.

PC 3/12/14 The Planning Commission concurred.

NE-P9 The City of Bothell recognizes the listing of Chinook Salmon and Bull Trout as threatened species under the Endangered Species Act and acknowledges the possibility that other plant and animal species may be listed in the future. Bothell should continue to participate in regional efforts to recover listed species including watershed planning, restoration and implementation efforts, and other recovery actions.

NE-P10 Stream and wetland buffer requirements may be increased to protect species identified as threatened or endangered by the state or federal government or to provide the buffers established under any special rules promulgated to protect a listed species or by including best available science.

NE-P11 Preserve and protect critical areas and buffers in as natural a state as possible, emphasizing avoidance of alterations to these areas. Identify and create a system of fish and wildlife habitat, including habitat for any species listed as threatened or endangered by the state or federal government, with connections between large habitat blocks and open spaces. Minimize habitat fragmentation by linking wildlife habitats via corridors. Connect wildlife habitats with each other within the City and the region to achieve a continuous network. Development proposals shall identify critical areas and unique and significant wildlife habitat areas and habitat areas associated with any species listed as threatened or endangered by the state or federal government and ensure that buildings, roads, and other improvements are located on less sensitive portions of the property.

PC 2/26/14 - The Planning Commission recommends that these policies mention all major creeks, rivers, and streams within the Planning Area. Accordingly, the inclusion of Swamp Creek is proposed throughout this document.

PC 3-12-14 - The Planning Commission concurs.

NE-P12 Work with other cities, King and Snohomish Counties, and state agencies to deal effectively with regional natural environment issues such as surface and ground water quality and quantity, the maintenance and enhancement of the Sammamish River, and North Creek, and Swamp Creek as fish habitat, and the identification of fish and wildlife conservation areas that cross jurisdictional boundaries.

Staff 2/26/14 - Use of the term "fish sensitive" when referring to design and construction practices has been abandoned in favor of the term "Best Management Practices" or BMPs. Further, other references within this policy are better articulated in policies such as NE - P5, NE - P8, NE - P10, and NE - P12 and can be removed. Substantial updates to this policy are warranted.
NE-P13  Implement Require “fish sensitive” site design, construction and maintenance practices throughout the city that incorporate best management practices (BMPs) for fish and wildlife habitat preservation. “Fish sensitive” site design, construction and maintenance may include but is not limited to removing or preventing fish passage barriers, improving fish habitat as part of a development proposal or a capital improvement project, preserving existing forested areas, reducing the amount of impervious surface coverage in roads and parking areas, constructing special storm water control facilities, restoring culverted (piped) streams, enhancing existing streams, planting drought-resistant landscaping, limiting or prohibiting pesticide use and other elements that create properly functioning conditions. “Fish sensitive” best management practices are specific construction and maintenance methods, practices, and techniques that have been shown to have minimal impact on fish habitat.

Staff 2/26/14 - During the Shoreline Master Program update, this policy was revised to reflect the more realistic practice of protecting and preserving water quality consistent with the NPDES Phase II Permit requirements. Further, the term “enhance” water quality was removed. While the City can certainly protect and preserve water quality through its regulatory authority, it is virtually impossible to enhance or “clean” water quality from its existing background pollutant load. In other words, when waters within the Sammamish River, North Creek and Swamp Creek enter the City, they contain a certain amount of “pollutant load”. The City can take actions to reduce the amount of pollutant load added to these water bodies but the science indicates, the City can do little to reduce the pollutant load or enhance water quality.

Accordingly, some revisions to the policy below are needed to match the language of the Shorelines Element and to mention the NPDES Phase II requirements.

PC 2/26/14 - The Commission requested clarification regarding the hierarchy of the Shorelines Management Act (SMA) and the Growth Management Act (GMA). The GMA within RCW 36.70A.480 provides, “...the goals and policies of the shoreline management act as set forth in RCW 90.58.020 are added as one of the goals of this chapter as set forth in RCW 36.70A.020 without creating an order of priority among the fourteen goals”. In other words, the GMA and SMA have complementary standing but on lands within SMA jurisdiction (the Sammamish River, North Creek, and Swamp Creek plus all lands within 200 feet of these water bodies, all associated wetlands, and all lands covered by the 100 year FEMA flood plain) the SMA prevails. From a purely practical viewpoint, the SMA serves in a similar way as an overlay zone or subarea regulation with customized land use, bulk and dimensional standards, critical area regulations and other development requirements that may be different (and they are) from those promulgated by the GMA.

PC 2/26/14 - The Planning Commission concurs subject to review of the final draft of this element.

NE-P14  Protect and preserve water quality in the Sammamish River, North Creek, and Swamp Creek, and take actions to ensure no net increase in pollutant loads and water quality degradation as these water bodies pass through the City of Bothell. Ensure development complies with stormwater regulations such as those implemented to meet National Pollutant Discharge Elimination System (NPDES) Phase II Permit requirements Protect, preserve, and, where possible, enhance water quality in the Sammamish River, Horse Creek, North Creek, and their tributaries. Retrofit existing surface water quality facilities to current surface water quality standards whenever re-development or expansion of existing development occurs.

Staff 2/26/14 - The Sammamish River Watershed effort has been replaced with the WRIA 8 effort. Also, it is necessary to add Swamp Creek as a water body within the City’s Planning area.
NE-P15  Participate in Sammamish River watershed and other local and regional efforts to enhance or restore the Sammamish River, and North Creek, and Swamp Creek ecosystems to improve habitat conditions for fish and wildlife.

NE-P16  Encourage improvements to the fisheries habitat of watercourses when abutting properties are developed.

NE-P17  Create special development incentives for development proposals which daylight and restore a previously culverted (piped) stream.

NE-P18  Strive to improve water quality, fisheries habitat and wildlife resources consistent with adopted state and federal standards.

NE-P19  Establish and protect appropriately sized buffers around streams, wetlands, and rivers based on best available science. Preserve stream corridors wide enough to maintain natural biologic and hydrologic function as determined by best available science in all development proposals by use of native growth protection tracts or other appropriate mechanisms.

Staff 2/26/14 - The GMA requires City’s provide special consideration for anadromous fish (fish which spend part of their life cycle in the ocean which are all Salmon species). The first sentence of the policy below is addressed within numerous other Natural Environment Policies and seems duplicative.

PC 2/26/14 - The Planning Commission concurs.

NE-P20  Protect, preserve, and where possible, enhance water quality and endeavor to improve the continued viability of streams and their tributaries, thereby supporting the fisheries and wildlife resources dependent on them. Give special consideration to conservation and protection measures to preserve and enhance anadromous fisheries.

NE-P21  Public improvements and private developments shall implement surface water runoff best management practices and best available science to reduce the impact of development activities on natural drainage systems.

NE-P22  Participate with other cities and King and Snohomish Counties in adaptive management, monitoring, and evaluation of the effectiveness of restoration, enhancement, and recovery strategies for plants and animals listed as threatened or endangered.

NE-P23  Protect groundwater recharge areas that benefit anadromous fisheries through the critical areas regulations.

Staff 2/19/14 - Best Management Practices have been and continue to be revised on a regular basis; particularly since the initial crafting of this policy. Some of those changes include methods that retain, enhance or create fish passage throughout a stream basin. Changes as suggested below better reflect the current fish passage practices and broaden the desire to eliminate fish barriers.

PC 2/26/14 - The Planning Commission suggested staff include a brief discussion on “bottomless” and/or “fish passage” culverts. A “bottomless” or “fish passage” culvert maintains a stream gradient and morphology that has the same or similar appearance and function as a stream in a natural configuration. Since 2000, the United States Forest Service has used bottomless arch culverts when crossing fish streams in the national forests. These arch culverts function similarly as a bridge because they allow a road crossing but maintain the natural stream’s configuration and its ability to allow fish to “pass through”.

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Another common practice involves upsizing the culvert (e.g. use a 48 inch pipe instead of a 24 inch pipe) and filling the bottom half of the pipe with approved gravels and cobbles thereby creating a stream bottom and running the water over the wider cross-section of the pipe. This method was used for part of the crossroads project except the culvert was shaped like a "box" (rectangular) shape.

NE-P24 Use bridges, bottomless or fish passage culverts and other techniques which preserve, restore or enhance fish passage as the preferred method of crossing all watercourses that has habitat suitable for fish use or may be rehabilitated for fish use in the future. Prohibit the use of culverts designs or other types of watercourse crossings which would create or perpetuate in fish-bearing streams where fish barriers would result. Use Consider allowing culvert systems or bridges (such as bottomless culverts) that would provide or restore streambeds to a function similar to natural channels where loss of habitat would not be significant and the cost of a bridge would not justify its benefits to fish passage, flood control or other resources.

Staff 2/26/14 - The policy below is derived from King County CWP Policy NE-2 which encourages the use of LID practices. This practice is also consistent with the NPDES Phase II Permit requirements.

PC 2/26/14 - The Planning Commission concurs subject to review of the final draft of this element.

NE-P25 Encourage low impact development approaches for managing stormwater, protecting water quality, minimizing flooding and erosion, and protecting habitat.

NE-P265 Support public education to protect and improve surface and ground water resources.

NE-P276 Protect the quantity and quality of cool groundwater supplying the Sammamish River, and North Creek, Swamp Creek and their its tributaries. Require development potentially affecting natural groundwater flows to follow existing topography; minimize changes in grade, cleared area and volume of cuts and fills; and minimize potential for blockages from foundations, retaining walls and rockeries.

Wetlands

NE-P287 Due to the environmental value of wetlands as well as their economic value in reducing the need for storm water facilities, ensure that development results in no net loss of wetland functions and values, and no net loss of wetland area except in limited circumstances where the lost wetland area provides minimal functions and the mitigation action results in equal or greater wetland hydrological and biological functions, including wetland habitat functions which provide equal or greater benefits to the functioning of the sub-basin, such as riparian wetland habitat restoration and enhancement, all as determined by a site-specific function assessment. Promote the long term increase and enhancement of wetlands.

PC 2/26/14 - The Planning Commission requested information on whether the City had implemented a mitigation bank or fee-in-lieu mitigation program but otherwise had no objections with this policy.

Staff 3/12/14 - The City has not, to date, invested in the substantial resources necessary to enact a wetland mitigation bank or fee-in-lieu program. These types of programs require extensive staff time, the use of expert consultants and considerable input from regulatory agencies such as the Department of Ecology, Fish and Wildlife and the Army CORPS of Engineers. Retaining the Policy below keeps this option available for future implementation.
Consider effective ways of wetland mitigation such as mitigation banking or fee-in-lieu mitigation for public capital improvement projects that are linear in configuration, such as road and utility projects.

Staff 2/26/14 - See discussion below within the soils, slopes and geologically hazardous areas Policy group. The Policy below is being re-located to this position.

PC 2/26/14 - The Planning Commission concurs.

Wetlands, streams, or other sensitive areas important for control of surface water runoff which have been adversely affected by human activity should not be further degraded.

Native vegetation

Work with adjoining county and city jurisdictions to create and maintain natural and developed greenbelts and open space areas as "urban separators" in keeping with the Growth Management Act and as a physical way to delineate and define Bothell's community boundaries.

Encourage restoration of degraded riparian buffers and deforested areas and removal of impervious surfaces.

Preserve trees within streams, wetlands and their associated buffers.

PC 2/16/14 - The Planning Commission requested information on the benefit of trees as a means of removing carbon from the atmosphere because trees and other plants capture carbon and other pollutants and incorporate those molecules into the body of the plant.

Accordingly, the minor revision below implements a greenhouse gas emission strategy consistent with the countywide policies above by encouraging the planting of trees in areas not expected to develop.

PC 3/12/14 - the Planning Commission concurs.

Encourage the planting of suitable native trees and native vegetation within degraded streams, wetlands and buffers. Encourage the planting of suitable native trees and native vegetation on steep slopes and on lands not anticipated to be developed.

Soils, slopes and geologically hazardous areas

Encourage environmentally sensitive site design that respects existing topography, sensitive lands and critical areas, provides for retention of native vegetation, provides active and passive recreational open space and minimizes impervious surface coverage. The City should create special design and building standards based upon best management practices to protect hillsides from impacts associated with development on slopes.

Update City building and development codes on an on-going basis to incorporate the best and latest standards for minimizing damage caused by seismic activities and take into account such hazards when locating land uses and intensities.
Staff 2/26/14 - Staff suggests that the Policy below is more appropriately located within the “Wetlands” policies section because it has no relation with slopes or geologically hazardous areas which is the title of this section. Staff recommends either removing this Policy or re-locating it as Policy NE-P30. This draft of the Natural Environment Element shows the policy re-located above.

PC 2/26/14 - The Planning Commission concurs.

NE-P35 Wetlands, streams, or other sensitive areas important for control of surface water runoff which have been adversely affected by human activity should not be further degraded.

NE-P376 Promote soils stability by the use of natural drainage systems and retention of existing native vegetation.

NE-P387 Establish buffers around the perimeter of undevelopable landslide hazard areas to avoid the potential to undermine such areas and minimize the risk to human life and safety.

NE-P398 Preserve the special ecological functions of hillsides by developing design and construction standards that help protect hillside ecological functions such as groundwater recharge, natural

PC 3/12/14 - The Planning Commission identified the Air Quality and Greenhouse Gas Emissions / Climate change policies and actions should be placed into separate sections to improve clarity.

PC 4/9/14 - The Planning Commission concurs.

Air quality

Staff 2/26/14 - King and Snohomish County, Countywide Planning Policies (KCCWPP and SCCWPP) requires the inclusion of policies to reduce greenhouse gas emissions and to recognize climate change. This type of activity is a regional and even a mega-regional effort. However, it is beholden on all jurisdictions to participate by implementing policies and standards related to land use patterns and transportation systems that reduce single occupant vehicle trips and promote bicycling, pedestrian and other non-motorized modes of transportation, encourage use of “green” building techniques, improve energy efficiency and implement other activities which reduce the release of greenhouse gases.

Consistent with these KCCWPP and SCCWPPs, staff proposes amendments to several existing policies and the placement of new policies that incorporate greenhouse gas emission and climate change objectives consistent with the County-wide Planning Policies. These greenhouse emission and climate change policies affect a number of Planning Elements including Land Use, Urban Design, Utilities, and Natural Environment. The policy amendments offered in the Natural Environment Element are geared mostly toward the air quality component of this effort.

PC 2/26/14 - The Planning Commission questioned whether all greenhouse gas / climate change policies should be located within the Natural Environment Element and suggested that some of these greenhouse gas and climate change policies could be placed within other elements, such as the Transportation, Urban Design and Land Use.

Staff 3/12/14 - Staff agrees with the Commission and is proposing changes to the initial draft policies as provided at the February 26 public hearing. Those changes include parceling out some of the KC and SC greenhouse gas and climate change policies to those Planning-wide Elements that most closely fit the individual objective of the SCCWPP or KCCWP Policy. For example, KCCWP Policies EN-16 and EN-20 include objectives to encourage land use, compact urban development and non-motorized forms of
transportation. Accordingly, these county-wide policies should be incorporated into the Land Use, Urban Design or Transportation Elements as appropriate.

Below are all KCCWPP and SCCWPP Policies regarding greenhouse gas emissions and climate change and the location where Staff proposes complimentary policies should be located.

KCCWP EN greenhouse gas/climate change policies are proposed to be implemented as outlined below:
- EN-16 - Land Use, Urban Design, and Transportation, and partially within NE-P40
- EN-17 - Natural Environment - NE-P-41
- EN-19 - Natural Environment - NE-P 41 and 47
- EN-20 - Land Use, Urban Design, and Transportation and partially within NE-P40
- EN-21 - Natural Environment - NE-P 48

SCCPP ENV greenhouse gas/climate changes policies are proposed to be implemented as outlined below:
- ENV - 6 - Natural Environment -NE-P40, 41, 47 and 48
- ENV-7 - Natural Environment - NE-P 41 and A-13
- ENV-8 - Natural Environment - NE-P 31 through 34
- ENV-9 - Natural Environment - NE-P 48
- ENV-10 -Natural Environment - NE-P41

Staff 2/26/14 - The Policy below needs minor revisions to recognize the authority of the Puget Sound Clean Air Agency (derived from the Federal Clean Air Act and the Washington Clean Air Act (RCW 70.94) and to remove the reference to a City-sponsored incentive program that would replace wood fireplaces with gas fireplaces. The City should defer to the Puget Sound Clean Air Agency for these types of programs.

Staff 2/26/14 - Staff is proposing to simply the policy below to better integrate with the KCCWPP and SCCWPP climate change and greenhouse gas emission policy regarding reduction of single occupant vehicle trips and to respond to the Planning Commission desire to simplify this policy.

Staff 3/12/14 - When creating individual sections regarding Air Quality and Greenhouse Gas Emissions (GHG), it becomes necessary to revise the air quality policy NE-P40 to focus upon air quality functions. Staff is also proposing to insert a new policy NE-P41 to identify transportation management as an air quality policy.

PC 4/9/14 - The Planning Commission concurs

NE-P4039 Promote improved air quality through land use decisions and public facility sitings which create a compact and efficient community design, insofar as such a design reduces the quantity and length of single-occupancy vehicle trips. To further promote improved air quality, participate with Puget Sound Clean Air Agency programs and advisories, and, to reduce greenhouse gas emissions, participate in the regional greenhouse gas emissions inventory and measurement framework, explore incentives for the installation of gas fireplaces in lieu of wood fireplaces, particularly in multi-family developments.

NE-P41 Use transportation planning and transportation management as one mechanism to address air quality impacts.
Climate Change and Greenhouse Gas Emissions

Staff 3/12/14 - Staff is proposing some revisions to the policy below to better align with KCCWPP and SCCWPP provisions regarding greenhouse gas emissions and climate change and to address Planning Commission desire to include a more measurable standards to be met as a result of these efforts. Staff is proposing that the City reference the State-wide standard (as expressed within the KCCWPP EN 17) where by 2050 greenhouse gas emissions will be reduced to 50 percent of 1990 levels.

PC 3/12/14 - The Planning Commission is concerned with the unintended consequences of committing to climate change and greenhouse gas (GHG) reduction policies which either cannot be met, go far beyond the authority of the City of Bothell to implement, or which may have detrimental effects upon the City’s economic vitality. The scenario the Planning Commission is most concerned with is that by crafting overly aggressive greenhouse gas emission reduction targets the City may force some types of economic activities (industry or manufacturing) to close or re-locate if, in the future, the City were to find itself emitting more greenhouse gases (GHG) than is allowed under the City’s adopted GHG emission target.

The Planning Commission also identified the following concerns/comments:
- Is it possible to “de-politicize” climate change? The Commission recognizes that there are many people who question climate change and scientific findings that identify human activity may be the cause of accelerating climate change. It should be noted that a majority of climate scientists do opine that the human activity of releasing greenhouse gases does have an influence on climate change;
- Identify how close the state is to meeting the greenhouse gas emission goal of achieving 50 percent of the GHG released in 1990 by 2050;
- The City should not adopt a specific target unless there is a high degree of likelihood the target can be met and it is understood that the City of Bothell has limited authority;
- Provide additional background information on the state’s efforts;
- Craft policies that achieve the most cost effective GHG reductions;
- Consider policies that encourage telecommuting, and locating population near employment centers;
- Do not export businesses or manufacturing processes as a means of achieving a GHG emission target; and
- Finally, recognize other city obligations regarding employment and population growth and economic activity.

Staff 4/9/14 - Please see the Staff Memorandum dated April 2, 2014 for additional information and responses to a number of these questions/issues. To briefly recap the memorandum; at its most basic, climate change is the observed phenomenon (altered weather patterns) and the release of greenhouse gases is the cause (heating of the atmosphere). The State is making progress toward reducing GHG emissions but, as of 2010 (the latest year for which measurements are available) 1990 GHG emission levels have not yet been achieved (it is close). According to State measurements, there has been a decreasing trend in GHG emissions since 2007. However, it is surmised that some of that decrease was caused by the great recession.

The State has identified the following GHG emissions targets:
- Be equal to 1990 GHG levels by 2020
- Be 25% below 1990 GHG levels by 2035
- Be 50% below 1990 GHG levels by 2050

The State has also segregated GHG emission activities into “Sectors” which is a group of similar GHG emitting activities. The seven sectors comprise: Transportation; Residential / Commercial and Industrial (RCI); Electricity Generation; Industrial Processes; Agriculture; Waste Management; and Fossil Fuel
Industry and they are measured in Million Metric Tons of CO₂ equivalent (MMtCO₂e) because greenhouse gases are measured against their heat trapping ability as compared to CO₂.

In the State of Washington, the Transportation Sector which generates 42.2 MMtCO₂e is the single largest contributor to GHG emissions, followed by Electricity Net Consumption (generation) at 20.7 and RCI at 19.7 MMtCO₂e.

The City has the authority to influence the Transportation and Residential, Commercial and Industrial (RCI) Sectors by encouraging compact walkable communities, mass transit, non-motorized transportation and energy efficient buildings in residential, commercial and industrial buildings.

Staff has revised the proposed GHG policies to: 1) reflect the Planning Commission comments; 2) to be consistent with the King and Snohomish County, County-wide Planning Policies; and 3) to focus climate change and GHG policies upon those “Sectors” or activities which the City has authority to influence.

Policy NE P42 is a Staff proposal to ‘de-politicize’ climate change. The Policy below acknowledges there is uncertainty over climate change but reminds the reader it is prudent to participate in activities to reduce the potential for human-caused activities from contributing to climate change and the City recognizes its obligation to do so.

PC 4/9/14 - Planning Commission concurs.

NE-P42 Climate change is a phenomenon that atmospheric and climate experts theorize could lead to significant adverse impacts upon features of the natural environment such as air, water, plants, wildlife, and people. Whether climate change is caused by human activity or a natural weather cycle, the prudent approach is to establish policies and actions that reduce the potential for human-caused actions to contribute to climate change. Accordingly, the City of Bothell should participate in climate change and greenhouse gas emission reduction efforts.

Staff 4/9/14 - Proposed Policy NE-42 includes the type of activities which the City of Bothell has the authority to take in addressing climate change and includes features of the King and Snohomish County, County-wide Planning Policies. This policy focuses on actions involving the Transportation and RCI Sectors.

The reason there is one policy regarding climate change and one policy (NE-P44) focused on GHG Emissions is to comply with the specific County-wide planning policies which also split these two efforts though Bothell’s best approach would be to reduce GHG emissions.

PC 4/9/14 - Planning Commission concurs.

NE-P43 Minimize Climate Change impacts by:
- Encouraging employment and population growth within the City’s activity centers and mixed use areas that support mass transit, encourage non-motorized modes of travel and reduce commute trip lengths;
- Using natural systems to reduce carbon in the atmosphere by establishing regulations that retain existing forests and promote the creation of forests on lands not anticipated to develop;
- Encouraging and incentivizing energy efficiency, conservation methods and sustainable energy sources in public and private development;
- Working toward developing a common framework with other jurisdictions to analyze climate change impacts when conducting environmental review under SEPA; and
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- Participating in regional efforts to anticipate, prepare for, and adapt as necessary to the impacts of climate to public health and safety, the economy, public and private infrastructure, water resources, and wildlife habitat.

Staff 4/9/14 - The revised Policy NE-P44 below focuses on activities which the City can undertake to reduce greenhouse gas emissions. Again, the emphasis is upon the Transportation and RCI Sectors.

PC 4/9/14 - Planning Commission conurs.

NE-P44 Minimize greenhouse gas emissions by:

- Encouraging or incentivizing new development to use low emission construction practices, low or zero net lifetime energy requirements and "green" building techniques;
- Participating in regional programs or initiatives to reduce greenhouse gas emissions;
- Encouraging mass transit, non-motorized, and other forms of transportation that does not rely upon single occupant vehicle trips;
- Focusing on those initiatives which produce the most effective and cost efficient reductions; and
- Increasing and encouraging the use of low emission vehicles, such as efficient electric-powered vehicles.

Staff 4/9/14 - Proposed Policy NE-P45 implements the State Legislature’s finding within RCW 70.235.005 which states:

“It is the intent of the legislature that the state will:
(a) Limit and reduce emissions of greenhouse gas consistent with the emission reductions established in RCW 70.235.020;
(b) Minimize the potential to export pollution, jobs, and economic opportunities; and
(c) Reduce emissions at the lowest cost to Washington’s economy, consumers, and businesses”.

Further, this policy also addresses the Commission’s desire to avoid a situation where important economic activities (e.g. industrial or manufacturing) would be prohibited or discouraged as an expeditious means of reducing GHG emissions.

PC 4/9/14 - Planning Commission conurs.

NE-P45 Minimize the potential to export greenhouse gases, jobs, population, and economic opportunities and reduce greenhouse gas emissions at the lowest cost to Bothell’s economy, residents, consumers and businesses.

Staff 2/26/14 - In future hearings, Staff will be offering amendments to the Utilities and Conservation Element which will propose re-locating many of the conservation goals and policies of that Element into other Elements, including the Natural Environment Element; certain types of conservation policies are required by the GMA and must, therefore, be incorporated into the Imagine Bothell... Comprehensive Plan. Staff is proposing to insert many of those Conservation Policies and Actions into the Natural Environment Element as proposed below.

Further, those King County, County-Wide Planning Policies related to greenhouse gas emissions are proposed to be included below (NE-P49 and NE-P53).

Staff 3/12/14 - The five conservation of water policies initially proposed by staff in the February 26, public hearing have been combined into a single policy and the two recycling policies have been combined.
Conservation of Resources

NE-P47  Encourage water conservation by:
- Retaining regulations encouraging water conservation;
- Providing water conservation assistance to customers;
- Promoting public education, awareness and involvement in water conservation programs; and
- Practicing efficient water use in municipal buildings, parks, city-maintained facilities and the Bothell Cemetery.

NE-P48  Continue to promote the City recycling and composting programs in single family and multi-family residential areas and extend the program to all businesses and municipal facilities.

NE-P49  Encourage the transition to a sustainable energy future by reducing demand through planning for efficiency and conservation and by meeting reduced needs from sustainable sources.

Monitoring, updating and enforcement

NE-P50  Apply adaptive management to critical area regulations to monitor and evaluate their effectiveness and update regulations that do not achieve the level of protection prescribed in the regulations.

NE-P51  Provide sufficient resources to enforce critical area and other natural resource regulations, including enforcement of both civil and criminal penalties.

PC 2/26/14 - The Planning Commission expressed support for identifying a specific goal against which the effectiveness of this policy will be measured. KCCWPP EN-17 specifies the state-adopted standard of achieving a reduction that is equivalent to 50 percent of the emissions that were released in 1990 by the year 2050. It is appropriate to utilize the same standard in this policy.

PC 3-12-14 - The Planning Commission believes that committing to a specific target is inappropriate for an activity that is so dependent upon regional and national efforts. Further, staff is proposing placing the work "incentivize" into this action to match policy NE- P44 and to increase the potential of success of reducing GHG emissions.

NE-P52  Promote or incentivize energy efficiency, conservation methods and sustainable energy sources in support of achieving a reduction of greenhouse gas emissions and climate change.

NE-P53  Formulate and implement climate change adaptation strategies that address the impacts of climate change to public health and safety, the economy, public and private infrastructure, water resources, and habitat.

Actions

Applicable to multiple features of the Natural Environment

NE-A1  Periodically update critical areas regulations to incorporate best available science, correct deficiencies identified through adaptive management or provide protection for plant or animal
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species listed as threatened or endangered by the state or federal government. The critical
areas regulations shall embody the intent of the goals and policies contained in this Element
and elsewhere in the Plan.

NE-A2 Aggressively enforce the city’s regulations and ordinances, particularly with regard to natural
follage retention, land clearing, landscaping and critical area protection.

NE-A3 Maintain and update maps and inventories of aspects of the natural environment including,
but not limited to, critical areas as defined by the Growth Management Act (See Figures NE 1-
6).

NE-A4 Participate in interjurisdictional efforts which may be implemented from time to time
concerning the natural environment.

Staff 2/26/14 - The minor revision below simply references the “city” in lieu of the Boards, Commissions
and Council when investigating lands for reclamation, acquisition or preservation. Also, it makes sense
to reference both the Land Use and Parks and Recreation Elements.

PC 2/26/14 - The Planning Commission concurs.

NE-A5 Work with the public and any other interested parties to investigate and identify for Planning
Commission, Shorelines Board, Parks and Recreation Board, and City Council City
consideration environmentally sensitive areas, fish and wildlife habitat areas, fish and wildlife
corridors, aquifer recharge lands, critical forestlands, and other areas in need of preservation
within the Bothell Planning Area which are deserving of public reclamation, restoration,
acquisition, preservation and inclusion within the City’s open space system. Reference the
Land Use Element and the Parks, Recreation and Open Space Element.

Staff 2/26/14 - It is appropriate to identify “community” instead of “city” in the policy below because the
preservation of natural areas frequently crosses jurisdiction boundaries.

PC 2/26/14 - The Planning Commission concurs.

NE-A6 Prioritize those properties identified in NE-A5 according to their value to the community
and their vulnerability to degradation or loss. Emphasis should be given to those areas which
facilitate the development of uninterrupted natural passageways for wildlife, provide for
continuous urban separators between jurisdictions and within the community, or enhance
public access to the waterfront.

NE-A7 Provide printed materials and information workshops regarding stewardship of
environmentally sensitive areas.

NE-A8 Update the City’s surface water comprehensive plan and implementing regulations so as to
incorporate those surface water management approaches and technologies which best reflect
the goals and policies of this element.

Fish and wildlife

NE-A9 Continue participation in regional watershed and salmon recovery planning activities.

Soils, slopes and geologically hazardous areas
NE-A10  Protect cleared and graded areas from erosion at all times, pursuant to best management practices.

NE-A11  Maintain and update clearing and grading regulations to minimize the overall impact of the activity on the environment.

Staff 2/26/14 - The City already has hillside design criteria within the Critical Areas Regulations under the Geologic hazards section (BMC 14.04.800). Accordingly, the language should read ‘retain and update’ not ‘develop’.

PC 2/26/14 - The Planning Commission concurred subject to review of the final draft of this element.

NE-A12  Retain and update, where necessary, Develop hillside design and construction standards for development on geologically hazardous slopes.

Staff 2/26/14 - Actions are needed that support the proposed new policies regarding the KCCWPP and SCCWPP requirements to implement certain activities associated with the reduction of greenhouse gas emissions.

Staff recommends including a qualifier that identifies that the City will participate in the King County program to clearly establish that such a program is not to be considered an independent City of Bothell activity.

Staff 4/9/14 - The actions below have been revised to reflect the revisions to the policies above, to remove references to a specific GHG target, to emphasize the state-wide and regional scope of this effort, and to be consistent with County-wide Planning Policies. Further, the title has been changed to reflect the fact that these actions address GHG emissions.

4/9/14 - The Planning Commission concurs.

Air Quality-Greenhouse gas emissions

NE-A13  Participate in State and regional greenhouse gas emissions inventory and measurement frameworks to efficiently and effectively measure progress toward achieving greenhouse gas emission reductions.

NE-A14  Consider providing incentives to encourage private development to improve energy efficiency, use green building and site development methods, and to implement other greenhouse gas emission actions.

PC 2/26/14 - The Planning Commission requested that staff provide the web page link for the Bothell CO2OL Program which is: http://www.ci.bothell.wa.us/CityServices/BothellCOOLashx?p=1740

It is appropriate to note that currently, the Bothell CO2OL Program’s focus is on recycling and stormwater runoff because of the public outreach requirements of the NPDES Phase II Permit, and the need to educate annexation area residents of Bothell’s garbage / recycling program.

Staff 4-9-14 - Staff inserted the words “and Climate Change” as one of the Bothell CO2OL activities. In its original form the Bothell CO2OL Program was a climate change initiative.
NE-A15  Continue the Bothell CO2OL Greenhouse Gas Reduction and Climate Change Program and expand the program where feasible.

Staff 2/26/14 - New actions are necessary to implement the re-located GMA-required conservation policies from the Utilities and Conservation Element which is proposed to be re-named the Utilities Element.

Conservation of Resources

NE-A16  Continue to participate in and develop information programs for homeowners, apartment dwellers and business that provide advice on how to reduce water consumption. This information may be disseminated through the City newsletter, with monthly utility bills, or by other means that should be readily accessible to the public.

NE-A17  In the review of proposed developments, encourage the use of indigenous, low water demand landscaping (also referred to as xeriscaping) and water-efficient irrigation systems, temporary irrigation systems or no irrigation system if the landscaping can establish itself and is sustainable without an irrigation system.

NE-A18  Develop and implement new and innovative programs to support water conservation.

NE-A19  Explore and when feasible, include water consumption history in customer water bills.

NE-A20  Provide to building permit applicants information on energy-efficient appliances and building materials and techniques.

Staff 2/26/14 - The following action is derived from discussions that occurred during the consideration of the Green Planned Unit Development (PUD) code amendments in 2012. Green building developers and builders identified that incentives are necessary to compensate developers and builders for the higher costs associated with the additional costs associated with green buildings and the carry costs that result from the additional processing and verification time necessary to comply with green building programs.

Staff 4/9/14 - The action below is consistent with the new GHG emission reduction policies above.

NE-A21  Encourage use of green building techniques and use of green building programs and strategies. Consider the use of incentives to encourage green building programs.

Staff 2/26/14 - The actions below are conservation actions that have been re-located from the Utilities and Conservation Element.

NE-A22  Give priority in City procurement procedures to recycled materials, if equal in cost or less expensive than other materials.

NE-A23  Investigate the feasibility of using reclaimed water for irrigation and other purposes and pursue if found to be cost-effective.

Monitoring, updating and enforcement
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NE-A2413-Apply adaptive management to monitor and improve the effectiveness of critical area and other development regulations to establish whether they have achieved the intended purpose of protecting environmentally sensitive lands from degradation in keeping with the policies of this element and best available science.