

ORDINANCE NO. 2012-08-040

AN ORDINANCE AMENDING THE CITY OF BELLINGHAM COMPREHENSIVE PLAN TO ADD THE ENVIRONMENT ELEMENT AS A NEW CHAPTER.

WHEREAS, the City has a process to amend the Comprehensive Plan once per year in accordance with Bellingham Municipal Code (BMC) 20.20.030 and 21.10.150; and

WHEREAS, the proposed Comprehensive Plan amendment was docketed by City Council January 2011; and

WHEREAS, the State Growth Management Act (GMA) (RCW Chapter 36.70A) determines what elements must be included in the Comprehensive Plan; and

WHEREAS, cities planning under GMA are required to meet goals that address protection of environmental resources and quality of life; and

WHEREAS, cities planning under GMA must ensure that community goals and values toward the environment are reflected in the Comprehensive Plan; and

WHEREAS, cities planning under GMA are required to include their Shoreline Master Program (SMP) goals and policies in their Comprehensive Plan, in accordance with RCW 36.70A.480; and

WHEREAS, the Environment Element references the latest SMP goals and policies once adopted; and

WHEREAS, the 2006 Comprehensive Plan has goals and policies related to the environment located in various chapters throughout the plan making them difficult to access; and

WHEREAS, the proposed amendment consolidates existing goals and policies related to the environment found in the Comprehensive Plan and other city-adopted documents into a single chapter making the goals and policies more accessible and organized; and

WHEREAS, eight new goals and ten new policies have been developed to address environmental issues that have emerged or become more critical since adoption of the 2006 Comprehensive Plan; and

WHEREAS, the Environment Element chapter provides a foundation that will be considered in the larger scope of the next full Comprehensive Plan update; and

WHEREAS, the proposed amendment to the Comprehensive Plan satisfies the decision criteria in BMC 20.20.040 A; and

WHEREAS, the SEPA responsible official reviewed the proposed amendment under the procedures of the State Environmental Policy Act, and a Determination of Nonsignificance was issued on March 2, 2012 and reissued on March 16, 2012; and

WHEREAS, in accordance with the GMA, the Washington State Dept. of Commerce was notified on April 4, 2012 of the City's intent to adopt the Comprehensive Plan amendment adding an Environment Element chapter to the Comprehensive Plan; and

WHEREAS, after a public notice was published on March 11, 2012 and mailed as required by BMC 21.10.150 D., the Planning Commission held a public hearing on April 12, 2012; and

WHEREAS, the Planning Commission considered the staff report and thereafter made Findings, Conclusions, and a Recommendation for adoption of the proposed amendment to the City Council, attached as Exhibit A; and

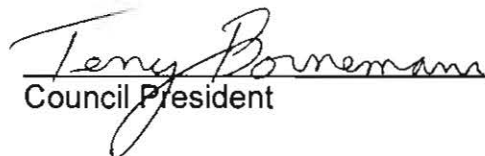
WHEREAS, after mailed and published notice as required by BMC 21.10.150 G., the City Council held a public hearing on May 14, 2012; and

WHEREAS, the City Council has considered the recommendation of the Planning Commission, the staff report, and the public comment;

NOW THEREFORE, THE CITY OF BELLINGHAM DOES ORDAIN:

- Section 1.** The City Council adopts the Findings of Fact, Conclusions and Recommendation of the Planning Commission as shown on Exhibit A.
- Section 2.** Bellingham Comprehensive Plan is hereby amended with the addition of the Environment Element as Chapter 9 of the Comprehensive Plan as shown in Exhibit B.

PASSED by the Council this 13th day of August, 2012



Council President

APPROVED by me this 16th day of August, 2012

Kelci Lind
Mayor

ATTEST: Linda Anderson
for Finance Director

APPROVED AS TO FORM:

[Signature]
Office of the City Attorney

Published: August 17, 2012

COMPREHENSIVE PLAN AMENDMENT – ENVIRONMENT ELEMENT BELLINGHAM PLANNING COMMISSION FINDINGS OF FACT, CONCLUSIONS, AND RECOMMENDATIONS

APRIL 12, 2012

SUMMARY

The City of Bellingham Planning and Community Development Department (PCDD) is requesting an amendment to the City's 2006 Bellingham Comprehensive Plan (Comp Plan) with the addition of a new chapter, the Environment Element. The proposed amendment meets Growth Management Act (GMA) (RCW 36.70A) goals regarding environmental protection and is intended to be coordinated and consistent with the other chapters of the Comp Plan.

I. FINDINGS OF FACT

1. Proposal Description

The proposal includes an amendment to the Comp Plan with the addition of a new chapter, the Environment Element. The proposed amendment is intended to:

- Maintain compliance with GMA (RCW 36.70A.020(10)) goals that safeguard the environment and quality of life; and
- Incorporate Shoreline Master Program (SMP) goals and policies as required by GMA (RCW 36.70A.480); and
- Consolidate existing goals and policies related to the environment from the Comp Plan and other city-adopted documents in a single chapter making the goals and policies and more accessible and organized; and
- Provide basic information on and efficient organization of key environmental topics in one chapter; and
- Ensure that community goals and values toward the environment are reflected in the Comp Plan; and
- Incorporate eight new goals and ten new policies related to the following topics included in the Environment Element chapter: Lake Whatcom, critical areas, climate change adaptation, energy and resource conservation, and fish and wildlife habitat conservation. These and others have been identified as locally significant environmental issues not fully addressed in the current Comp Plan. (Note: new goals and policies noted as such in the Draft Environment Element.)

2. Background Information/Procedural History

January 2011 - The City Council docketed the update of the Comp Plan and addition of the new Environment Element and the Economic Development Element to be completed in 2012.

May 2011 - The Governor signed a bill into law changing the Comp Plan update deadline from 2012 to 2016 due to the lack of state grant money to assist local jurisdictions on their update process.

August 15, 2011 - The City Council agreed to move forward with the Environment Element to be completed by mid-July 2012 and defer the major Comp Plan update to 2016.

February 13, 2012 - The City Council was briefed by PCDD staff on the status of the Economic Development Element, explaining that the chapter would be completed in mid-2013; the Environment Element is still on track for adoption in 2012.

3. Public Comment

Comments were received by one person on the non-project SEPA threshold determination of non-significance.

4. Consistency with the Comprehensive Plan Amendment Criteria

According to Bellingham Municipal Code (BMC) 20.20.040 A, the Planning Commission and the City Council shall use the following criteria to evaluate amendment requests. Below are all five criteria that must be met. (Note: the City Council approved changes to BMC 20.20.040 A on August 15, 2011 adopting these criteria.)

BMC 20.20.040 A 2. All the following criteria in have been met:

- a. The proposed amendment is consistent with the Growth Management Act and other applicable laws.

The Commission finds that the proposed amendment is consistent with GMA and other applicable laws. Specifically, the Environment Element is consistent with GMA Goal 9 (open space and recreation), Goal 10 (environment), and Goal 14 (shoreline management). While GMA does not currently address climate change directly, GMA Goal 2 (reduce sprawl) encompasses issues related to climate change and include encouraging efficient multimodal transportation.

- b. The proposed amendment addresses changing circumstances, changing community values, and is consistent with and will help achieve the comprehensive plan goals and policies.

The Commission finds that circumstances have changed since the adoption of the 2006 Comp Plan. Just before adoption, the City adopted its first comprehensive Critical Areas Ordinance which incorporated best available science to develop regulations protecting critical areas. This ordinance includes protection measures for wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, frequently flooded areas, and critical aquifer recharge areas.

Also, since adoption of the GMA in 1990, the science of climate change and resulting policies have emerged. Although climate change is not directly addressed by the GMA at this point, it is an issue that can't be ignored in long-term planning. In fact in 2007 the City passed a resolution (No. 2007-10) adopting greenhouse gas reduction targets and developed the Greenhouse Gas Inventory and Climate Protection Adaptation Plan. Because of the City's commitment to addressing climate change adaptation, several new goals and policies are being proposed that provide direction for long-term planning.

The eight new goals and ten new policies proposed in the draft chapter address changing environmental conditions, increased City and community awareness, and the adopted Legacies and Strategic Commitments that target maintaining a healthy environment and clean drinking water. These new goals and policies will help achieve the existing Comp Plan goals and policies by providing updated information and specific direction.

- c. The proposed amendment will result in long term benefit to the community and is in the community's overall best interests.

The Commission finds that environmental protection is economic protection. Avoiding damage to our streams saves costly remediation dollars. Sections in the chapter on urban forestry and natural services make a link between stewardship of the urban forest and how it provides innumerable benefits to human and stream health and maintains community character, making Bellingham a desirable place to live, work, and visit. It is in the community's overall best interest to maintain the environmental integrity that still exists. Furthermore, the community has certain expectations that the City will implement environmental protections for the resources we all share and value.

- d. The amendment will not adversely affect the public health, safety, or general welfare.

The Commission finds that the amendment will actually help protect public health, safety, and welfare by safeguarding aspects of the environment that could be harmful to health such as poor water or air quality and other intangibles that affect general welfare. There have been numerous studies showing the correlation between a healthy environment and a healthy community, and this chapter aims to maintain that interdependence.

The Environment Element chapter provides the basis for the City to adopt and implement development standards that protect Bellingham's citizens and its environmental resources. The new goals and policies proposed provide a foundation on which to provide protection to public health, safety, and general welfare in the face of a changing environment.

- e. If a concurrent rezone is requested, the proposal must also meet the criteria for rezones in BMC 20.19.030.

No rezones are proposed with this amendment.

II. CONCLUSIONS

Based on the staff report and the information presented at the public hearing, the Planning Commission concludes:

1. The proposed amendment to the Comp Plan to add an Environment Element will allow the City to maintain compliance with GMA (RCW 36.70A.020 (10)) goals aimed at safeguarding the environment and quality of life.
2. The proposed amendment adds the Shoreline Master Program goals and policies to the Comp Plan as required by GMA (RCW 36.70A.480).

3. The proposed amendment consolidates existing goals and policies and provides more efficient guidance related to the environment by developing a single chapter devoted to the environment. The proposed amendment also provides background information on main environmental topics in order to provide relevant information to citizens and decision makers.
4. Several environmental issues warrant attention now resulting in the drafting of eight new goals and ten new policies. The new goals and policies address Lake Whatcom, critical areas, climate change adaptation, energy and resource conservation, and fish and wildlife habitat conservation. These goals and policies further GMA direction to protect the environment and quality of life for our citizens.
5. The proposed amendment satisfies the review criteria for Comp Plan amendments listed in BMC 20.20.040 A 2.

III. RECOMMENDATIONS

Based on the findings and conclusions, the Bellingham Planning Commission recommends that the City Council approve the proposed amendment to the Bellingham Comprehensive Plan.

ADOPTED this 12TH day of April, 2012.

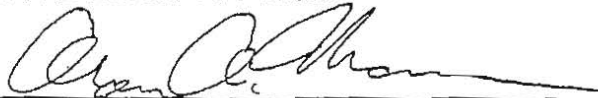


Planning Commission Chairperson

ATTEST: 

Recording Secretary

APPROVED AS TO FORM:



City Attorney

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ENVIRONMENT ELEMENT

PART 1: INTRODUCTION

The citizens of Bellingham have a long legacy of placing a high value on the environment and those community-held values have been expressed over and over in many venues. In 2011 the City Council agreed to docket the Environment Element chapter for consideration of adoption in 2012 to ensure compliance with the Growth Management Act (GMA) to address environmental protection in our Comprehensive Plan. The content of this new chapter represents Bellingham's key environmental topics and will serve as a foundation until the full update of the Comprehensive Plan which is scheduled for 2016.

In the 1992 'Visions for Bellingham' community-wide exercise, the Comprehensive Plan's framework goals were developed. As evidence of the community's interest in environmental protection, consider the Framework Land Use Policy FLU-8. This policy says, "Emphasize Bellingham's role as an environmental steward and direct the City to conduct business in a manner that: 1) increases community understanding of the natural environment and participation in protecting it through education and programs, 2) promotes sustainable land use patterns and low-impact development practices, and 3) leads by example in the conservation of natural resources such as energy, water, and trees, and avoidance of adverse environmental impacts."

Because the Comprehensive Plan directs the physical, social, and economic development of the City, a chapter devoted to the environment is essential for a comprehensive, informed approach to long-range planning. Goals and policies have been compiled from the 2006 Comprehensive Plan and the 2009 Shoreline Master Program, with a few new goals and policies included. City Staff, decision makers, and the public will be able to use this chapter for guidance and substance when considering both short- and long-term planning issues.

A. Legacies and Strategic Commitments

In 2009, the City Council embarked on a new strategic planning and performance measure system in an attempt to better align long-term goals with department budgets and work plans. Legacies and strategic commitments were adopted by Council in an attempt to chart a long course toward achievement of the legacy. A legacy is considered a long-term goal on a 20-50 year horizon.

Two of the nine legacies are directly linked to environment: "clean, safe drinking water" and "healthy environment". A third legacy has been included in this chapter, "mobility and connectivity options", because strategic commitments associated with this legacy have direct correlation to the Climate Change Adaptation section (Part 6).

The benefit of having the legacies and strategic commitments is that the entire city, both government and community, can track our long-term goals and the extent to which they're being met, allowing us to answer whether or not we are on the right course. The performance measures inform us how well we are doing with Lake Whatcom protection, for example or with greenhouse gas reductions. The Environment Element is a tool that will help us reach those long-term community-wide goals. The three legacies and associated strategic commitments relevant to this chapter are:

Legacy: Clean, Safe Drinking Water

Strategic Commitments

- Protect & improve drinking water sources
- Limit development in Lake Whatcom watershed
- Use efficient, ecological treatment techniques
- Maintain reliable distribution system
- Promote water conservation

Legacy: Healthy Environment

Strategic Commitments

- Protect & improve the health of lakes, streams & bay
- Protect & restore ecological functions & habitat
- Reduce contributions to climate change
- Conserve natural & consumable resources

Legacy: Mobility & Connectivity Options

Strategic Commitments

- Provide safe, well-connected mobility options for all users
- Maintain & improve streets, trails & other infrastructure
- Limit sprawl
- Increase infrastructure for bicycles, pedestrians & non-single-occupancy vehicle modes of transportation
- Reduce dependence on single-occupancy vehicles

B. Environment and the Economy

This chapter recognizes that it is mutually beneficial to have a healthy environment and a thriving economy. Those strongly-held environmental values for which this community is known reflect and inform the city's character. Then there are the natural features that have shaped Bellingham's character, from Bellingham Bay to forested stream corridors and the surrounding hills and forests. Bellingham's economic vitality benefits from a healthy and respected environment and the city makes this known to perspective businesses and employers.

Keeping Bellingham healthy—safeguarding our drinking water, protecting our salmon streams, retaining the urban forest and air quality—is what keeps this city livable and attractive to educated, skilled employees. In surveys of employers in Bellingham, a consistent response is that the quality of the environment and recreational opportunities is one of the biggest attractions to highly-skilled, talented workers. A mutual benefit manifests itself when those businesses and individuals participate in maintaining the environmental integrity we all share.

Bellingham has a growing reputation as a leader in sustainability, both in our municipal practices and in our city project and policies. In addition, our partnerships with the higher educational institutions and the private sector have embraced the regional interest in sustainability with the intent to save resources, save costs, and maintain an economically viable and a livable community into the future.

C. Environmental Stewardship

Environmental stewardship is a priority for the City and is expressed throughout this chapter and the Comprehensive Plan as a whole. The City recognizes its role as a principal steward

because of its authority to regulate land use and its responsibility to implement federal and state environmental policies and programs. As a steward, the City is committed to protect, preserve and restore the natural environment through a mix of regulations, long-range plans, programs, incentives, educational resources, partnerships, and leadership through management of its own land and operations.

The City's commitment to being a good steward of the environment is expressed through a responsible land use plan and strong regulatory program. The land use plan strives to establish a land use pattern that accommodates carefully planned levels of development, promotes efficient use of land, reduces sprawl, and encourages alternative modes of transportation. The regulatory program that ensures environmental protection includes Bellingham Municipal Code, Titles 15, 16, 18 and 20, as well as the federal and state regulations aimed at protecting society's most valuable environmental resources.

Good stewardship also includes helping private landowners better manage their lands to sustain a healthy environment. Approximately 15 percent of the land area within city limits is owned by the City of Bellingham with approximately 2 percent owned by other public institutions. That leaves 83 percent in private ownership. While regulatory controls provide some environmental safeguards, as an environmental steward, the City can act as a leader and an educator and provide incentives to the private sector to do their part to maintain a healthy environment.

D. Natural Services

Natural services (or ecosystem services) is a term for the way that nature benefits humans and societies through the services it provides. More recently, natural services have even been assigned economic values, particularly when decision makers are faced at the cost of replacing the services with manmade substitutes. Take flood control as an example. Natural floodplains provide the service of absorbing flood events and re-supplying nutrients to the soil whereas the loss of that service has required us to build dikes and levees and left us with ancillary problems like downstream scouring. Examples of other natural services include:

- Air and water purification
- Decomposition of waste
- Moderation of weather extremes
- Nutrient cycling
- Generation of soil fertility
- Protection of stream channels

PART 2: LAKE WHATCOM

Lake Whatcom is a county-wide treasure. Located east of Bellingham, the lake is 10 miles long, holds approximately 250 billion gallons of water, and is comprised of three "basins", with the northernmost basin, Basin One, situated within the City limits. The total lake surface area is approximately 5,000 acres with the entire watershed area calculated at 36,135 acres (based on City data). In the City portion of the watershed (1,017 acres or 2.8% of the watershed), the zoning is largely residential. In the County portion, zoning is mostly rural forestry, commercial forestry, and various residential zones. [See Exhibit 1.]

Lake Whatcom supplies drinking water to approximately 100,000 residents as of 2011. Because people have been using the lake in a number of ways for over 100 years, the watershed and the lake itself have gone through significant changes. Those changes continue to be the focus of citizens and policy makers as the water quality of the lake declines. Although lake water treated at the City's Water Treatment Plant exceeds federal and state drinking water quality standards year after year, the cost of treatment has gone up because of the increasing challenges associated with the decline in water quality.

Lake Whatcom was first used as a water supply in the 1880s when the Bellingham Bay Water Company withdrew water from Whatcom Creek near the outlet of the lake. The City acquired the water supply in the early 1890s when the town of New Whatcom was formed. Lake Padden was also used as a water supply, mostly for the southern portion of Bellingham.

Prior to its use as a municipal water supply, Lake Whatcom was a busy, resource-rich area where coal was mined and timber was harvested and transported in log booms to the mills at the northern end of the lake in the vicinity of what is now Bloedel Donovan Park. The lake was also enjoyed for recreation and residential development occurred.

Since 1968, the City has relied on Lake Whatcom for its municipal water supply. The City and Georgia Pacific had jointly financed construction of the diversion dam on the Nooksack River in 1962 as a step toward using Lake Whatcom for both municipal and industrial uses. Water diverted from the river is transported through a tunnel to Mirror Lake and then through Anderson Creek where it empties into the south end of Lake Whatcom. A maximum lake elevation of 314.94 was established in 1953 by the Whatcom County Superior Court. A control dam near the lake outlet is used to manage available supply and lake elevation.

Starting in the early 1900s, there was concern about the water quality of the lake, from logging and coal mining, swimming, and eventually from the lack of sanitary sewer service. In 1981, Western Washington University's (WWU) Institute for Watershed Studies, which had been established in 1962, was contracted by the City to investigate the water quality of Lake Whatcom. A monitoring program was developed to provide long-term data for the lake.

In addition to gathering data on water quality trends in Lake Whatcom, since 1992 annual reports have been published by WWU describing the results of the annual monitoring of the lake and some of the major tributaries. In more recent years, additional research has been conducted by WWU on the effectiveness of stormwater facilities in the Lake Whatcom watershed and on the hydrology of the lake. This research has resulted in City improvements to stormwater facilities that treat residential development and roads.

Joint management of the lake by local jurisdictions commenced formally in 1998 with the signing of the Interlocal Agreement between the City of Bellingham, Whatcom County, and the Lake Whatcom Water and Sewer District (known then as Water District 10). The City has a right to withdraw water for municipal supply purposes. The Lake Whatcom Water and Sewer District (District) also has a right to withdraw a limited volume of water for its customers. The District was initially formed in 1968 to provide sewer service to homes with on-site septic systems and now provides sewer and water service to Geneva, Sudden Valley, and the north shore of Lake Whatcom.

Since 2000, the Interjurisdictional Coordinating Team (ICT), which is comprised of staff from the City of Bellingham, Whatcom County, and the District, has worked cooperatively on the development of lake management plans. The first management plan was completed in 1999, but since the formation of the ICT, five-year plans have been completed for 2000-2004, 2005-

2009, and 2010-2014. Sudden Valley Community Association staff has participated in the ICT since 2010.

In 1998, the Department of Ecology formally identified Lake Whatcom as having dissolved oxygen levels that did not meet State water quality standards for surface waters. This triggered a listing on the Washington State list of impaired water bodies, also known as the 303(d) list of the Clean Water Act (CWA). Subsequently, in 2008, high total phosphorus levels were added to the list of 303(d) water quality impairments. Low dissolved oxygen levels are a result of excess phosphorus contributing to algal blooms that eventually deplete dissolved oxygen in their decay. In low oxygen conditions, phosphorus is released from lake sediments further exacerbating the problem. In addition to these two listings, eleven tributaries to Lake Whatcom are also listed as impaired due to elevated fecal coliform bacteria counts.

Due to the 303(d) listings, the Dept. of Ecology completed a Total Maximum Daily Load (TMDL) study in 2008, to establish the maximum amount of phosphorus that Lake Whatcom can incur while still achieving acceptable water quality standards. This study also recommends maximum fecal coliform levels for the listed tributaries. The TMDL process is expected to formalize the multi-decade process needed to restore Lake Whatcom to acceptable CWA standards. Additional steps in the TMDL process include: continued implementation of the Lake Whatcom Management Program Work Plan, formulation of a Summary Implementation Strategy (SIS), and development of a Water Quality Improvement Plan (also called the Detailed Implementation Plan).

While there are several natural and anthropogenic sources of phosphorus, it is largely recognized that residential development is a significant contributor of phosphorus because of runoff characteristics from developed surfaces. As of December 2011, in the 36,135-acre Lake Whatcom Watershed there are more than 6,800 existing residential units with the potential to add approximately 1,929 more units in the watershed (City Lake Whatcom Watershed Annual Build-out Analysis, January 2012). Given that 83 percent of the city portion of the watershed is in private ownership and that developed runoff volumes are significantly more impactful to water quality than runoff coming from undeveloped areas, many City strategies focus on retrofitting those areas currently developed. Mimicking natural hydrology is recommended as a best management practice.

Maintaining a sustainable supply of clean drinking water is paramount to the City and the citizens relying on it. As a multiple-use watershed, Lake Whatcom has several significant challenges with over 6,800 homes and approximately 124 linear miles of paved roads (as of 2011) in addition to active forestry, animal husbandry, and boating.

Although boating doesn't contribute to the excess phosphorus problem, it can have an impact on water quality. As a result of impacts such as the release of unburned fuel, the City passed Ordinance No. 2005-06-045 in 2005, after much public debate, banning the use of carbureted two-stroke engines on the lake (the County has similar prohibitions).

Lake Whatcom provides many boat-related recreational opportunities for the community. However, when any boat is transported from one water body to another, it risks transporting aquatic invasive species (AIS). These species are capable of causing economic loss, environmental damage, and harm to human health and can include pathogens, plants, and animals. As of 2012, Lake Whatcom has at least eight AIS and one invasive mollusk, the Asian clam.

Preventing additional AIS from entering the lake, as well as preventing the spread of AIS from Lake Whatcom to other water bodies is important in ensuring that Lake Whatcom, and the resources it provides to the community, are not degraded due to invasive species. A prevention strategy is being developed to reduce the potential for additional infestations.

Efforts the City has undertaken to protect and improve the water quality of Lake Whatcom include constructing and upgrading stormwater facilities with best available technology, acquiring large land tracts, adopting stringent development regulations, engaging in public outreach/education and homeowner incentives, retrofitting streets with low impact development components, banning phosphorus fertilizer, and many others. It is clear that improvement of Lake Whatcom water quality will take a partnership of State, County, and City governments, the District, the Sudden Valley Community Association, neighborhoods, and watershed residents.

PART 3: SHORELINE MASTER PROGRAM

The shorelines of Bellingham have great social, ecological, recreational, cultural, economic and aesthetic value. Bellingham's lakes, streams, and near-shore areas provide citizens with clean water; deepwater port and industrial sites; habitat for a variety of fish and wildlife including salmon, shellfish, forage fish, and waterfowl; archaeological and historical sites; open space; and areas for boating, fishing, and other forms of recreation. In many cases, Bellingham's shoreline resources are limited and irreplaceable.

The City of Bellingham, through adoption of its Shoreline Master Program (SMP), intends to implement the 1972 Washington State Shoreline Management Act (SMA)(RCW 90.58) and its policies. The policies include protecting the State's shorelines and their associated natural resources, identifying areas for preferred uses, and providing opportunities for the general public to have access to and enjoy shorelines in general.

The water bodies that are designated as shorelines and managed by the SMP are Bellingham Bay, Lake Whatcom, Lake Padden, and Chuckanut, Whatcom and Squalicum Creeks as well as the critical areas that are associated with these shorelines such as wetlands and frequently flooded areas. [See Exhibit 2.]

Implementing the SMP must protect the ecological function of shorelines and, at a minimum, achieve a 'no net loss' of ecological function. Single-family residences, ports, shoreline recreational uses (including but not limited to parks, marinas, piers, and other improvements), water-dependent industrial and commercial developments, and other developments that depend on a shoreline location shall be given priority.

The City of Bellingham's first SMP was adopted in 1974 and then updated in 1989. Since that time, there have been substantial changes in the way shorelines are regulated. New scientific data and research methods have improved our understanding of shoreline ecological functions and their value to fish and wildlife, water quality and human health. Prepared in accordance with the SMA, the City's latest update was adopted by the State in 2012.

In 1995, the Growth Management Act (GMA) (RCW 36.70A) was amended to include the goals and policies of the SMA as one of the goals of the GMA (making it the 14th GMA goal). The amendment also required that the goals and policies of an SMP approved under RCW 90.58.020 be considered an element of the City's Comprehensive Plan (RCW 36.70A.480).

Pursuant to RCW 36.70A.480, the goals and policies of the latest approved SMP shall be

considered an element in the Comprehensive Plan but all other parts of the SMP, including use regulations, shall be considered a part of our development regulations. In addition, WAC 173-26-191(1)(e) specifies that there must be mutual and internal consistency between Comprehensive Plan elements and implementing development regulations (including SMPs) in order to result in effective and efficient shoreline management.

PART 4: CRITICAL AREAS

In the City of Bellingham, critical areas, as defined in the Growth Management Act (GMA) (RCW 36.70A), include: wetlands, fish and wildlife habitat conservation areas (includes streams), frequently flooded areas, and geologically hazardous areas. GMA requires the City to adopt policies that implement development regulation to protect the functions and values of critical areas, maintain and enhance anadromous fisheries, and conserve fish and wildlife habitat.

The City of Bellingham adopted its first complete Critical Areas Ordinance (CAO) on December 6, 2005, in accordance with GMA. Bellingham Municipal Code (BMC)16.55 replaced BMC 16.50 which was the City's first wetland and stream protection ordinance adopted on December 9, 1991. The 2005 CAO was based on best available science (as defined in WAC 365-195-900 through WAC 365-195-925), one of the basic GMA requirements for designating and protecting critical areas.

The purpose of having protective regulations for critical areas is twofold: 1) to protect public safety and 2) to protect the beneficial biological, chemical, and physical functions critical areas provide. By limiting impacts to critical areas, the City can protect the public, protect the ecological services provided, direct development to suitable areas, and save scarce public resources by avoiding the need to remediate or mitigate impacts from development.

The City of Bellingham is rich in wetlands and habitat conservation areas (streams, wildlife corridors, etc.) But like the rest of the nation, past practices have resulted in significant loss of these resources. There was a concerted effort to drain and fill wetlands through much of the 20th century. Beginning in the 1970's, however, there was a shift to understanding the value of wetlands for the natural services they provide. Wetlands, for example, provide such natural services as stormwater cleansing, flood attenuation, nutrient uptake, and wildlife habitat.

Fish and wildlife habitat conservation is the management of land for maintaining species in suitable habitats within their natural geographic distribution. Areas designated as fish and wildlife habitat conservation areas include, but are not limited to, those areas with which endangered, threatened, and sensitive species have a primary association. They also include lakes, ponds and streams as well as eelgrass beds and other habitat areas critical to the support of local species.

Geohazards include features such as landslide-prone areas, seismic hazard areas, and areas where past mining, such as the coal mining that occurred in Bellingham, may have created hazards. The marine bluffs found along Bellingham Bay are a visible example of areas that could pose a hazard and therefore warrant regulation of nearby activities in order to protect public safety and properties. Geohazards are identified to avoid locating development in areas that pose a risk to public safety due to inherent geologic characteristics.

Frequently flooded areas in Bellingham are those areas that are within the 100-year floodplain and all other areas that are locally know to flood frequently but that are not in a FEMA-

designated floodplain. The purpose of regulating these areas is to both protect the ecological processes and features associated with waterways but also to protect public safety and private and public property. Frequently flooded areas are designated to ensure maintenance of natural stream processes but also to reduce the risk to public safety and to properties.

Critical areas are regulated by the City, as required by GMA, but they are also often regulated by several state and federal agencies such as the U.S. Army Corps of Engineers, the Washington State Dept. of Ecology, and the Washington State Dept. of Fish and Wildlife Protection of critical areas within the shoreline jurisdiction will be transferred to the Shoreline Master Program, once the SMP is adopted by the Dept. of Ecology, in accordance with the GMA and the Shoreline Management Act.

PART 5: FISH AND WILDLIFE HABITAT RESTORATION

Bellingham contains numerous unique characteristics that, when combined, create a nexus for biological diversity and a richly dynamic landscape. The physical characteristics include a large marine bay, major river estuary, four salmon-bearing streams running through the city limits, freshwater lakes, remnants of old-growth forest, and acres of wild and plantation forest extending from the marine shorelines beyond the city limits to the Cascade Mountains. The combination of natural features is unique for a city the size of Bellingham.

Restoration

The City has put forth extensive efforts to catalogue, preserve, and restore habitats through programs such as the Bellingham Bay Demonstration Pilot Project, Shoreline Master Program update, Whatcom Creek Restoration project, Greenway acquisition program, and the Waterfront Futures Project. These efforts help meet the requirements set forth in the Growth Management Act (GMA) about the management of land for maintaining species in suitable habitats.

The goal of restoration is the reformation of ecological processes and functions into a persistent, resilient system. It is ideal to have restoration result in the creation of habitat and habitat-forming processes where feasible.

Restoration in urban areas presents several challenges including limited available sites, contamination, fragmented habitat, or competing needs for land resources. The City gives special consideration to protecting the systems that support salmon through, among other programs, its critical areas protections and floodplain regulations. Because life cycles of salmonids depend on functions throughout the watershed, effective measures to conserve and protect them must comprehensively address hydrology (including basin-wide levels of impervious surface), aquatic habitats, and riparian habitats.

Restoration efforts focus on several scales, from shoreline reaches to the watershed as a whole, to improve essential habitat conditions including clean, cold and adequate water, sufficient dissolved oxygen, spawning gravel, food sources, rearing habitat, refuges from predators, and unconstrained migration routes.

Urban restoration is best accomplished when the principles of landscape ecology are applied to the selection of a restoration site. Protecting our lakes, streams, wetlands, and nearshore environments requires consideration of broader watershed processes that occur outside these specific ecosystems. There is ample research indicating that restoration efforts that take a watershed approach by considering the broader watershed processes result in more successful outcomes.

Despite the loss and fragmentation of habitat, Bellingham has maintained its unique character, natural features, and open spaces. It has done this through a combination of regulatory requirements, land use planning, acquisition, and innovative restoration projects.

Water Quality and Quantity

Controlling pollutants at their source is the best method to prevent water quality problems in the city's streams and shorelines. Healthy streams support vital functions of the aquatic environment such as fish habitat and flood attenuation. Bellingham's surface water system consists of natural and constructed drainages which eventually discharge to the marine waters of Bellingham Bay. The major creeks in Bellingham are Squalicum, Whatcom, Padden and Chuckanut Creeks. In addition, a small area of land in the northern part of the city drains to Silver Creek, a tributary to the Nooksack River. The City is committed to maintaining and improving the conditions of its streams and utilizing the natural services they provide.

In addition to discrete pollutants such as heavy metals and bacteria, comprehensive stormwater and watershed management must also consider temperature pollution. Water temperatures influence what types of organisms can live in a water body and many organisms in our region rely on cold water to survive. Three main waterways in Bellingham have formally been identified as having temperatures that exceed State standards: Whatcom Creek, Padden Creek, and Squalicum Creek. Collectively these three creeks have been placed on the State list of impaired water bodies and include a Total Maximum Daily Load (TMDL) process to reduce instream temperatures. (Note: Lake Whatcom has also been placed on the State list of impaired water bodies.)

The City adopted a Watershed Master Plan in 1995 and an updated version was completed in 2007. The purpose of the plan was to examine all watersheds within the urban area, discern problems, provide solutions and focus work on the greatest needs to help provide solutions and strategies for dealing with flooding and stormwater quality issues.

Stormwater regulations that come from the state and federal levels have resulted in changes to local stormwater requirements. Data on the impacts of development showed that standards in place in the 1990s were insufficient to prevent degradation of the environment and loss of aquatic resources.

Since 1995 the City has been managing stormwater using source controls, education, low-impact development techniques and both onsite and regional treatment Best Management Practices (BMPs). The City has since adopted the 2005 Washington State Department of Ecology Stormwater Manual.

Low-impact development (LID) describes a stormwater management strategy that emphasizes the use of existing natural site features integrated with small-scale stormwater controls to more closely mimic natural hydrologic patterns. LID measures include preserving existing native vegetation and designing development to fit site characteristics. LID techniques include limiting impervious surfaces, and promoting onsite infiltration of stormwater.

PART 6: CLIMATE CHANGE ADAPTATION

In general, the ambient air quality in the city of Bellingham is good. Criteria pollutant measurements by the Department of Ecology and the Northwest Clean Air Agency demonstrate that concentrations are well within federal standards. One of our major sources of pollutants is cars and other mobile sources.

Climate Change Mitigation

Land use and development also can influence air quality. Maintaining or increasing residential density, and allowing for mixed development, could reduce pollution, primarily by reducing the amount of car trips people must make and thereby reducing emissions.

In 2007, the City passed Resolution No. 2007-10 adopting greenhouse gas (GHG) reduction targets including a Climate Protection Action Plan (CPAP) identifying specific implementation measures to achieve GHG reduction goals. The CPAP outlines the City's approach to climate change in three phases. Phase I enumerates and attempts to quantify existing actions that have been developed since the year 2000. Phase II identifies next steps towards reducing GHG emissions from both municipal operations and the community. [See Exhibit 3.] Phase III was initially left undeveloped to incorporate community responses and ideas. Phase III is anticipated for completion in 2013 and will likely focus on incorporating climate change adaptation strategies into municipal operations.

In 2011 the City completed the fifth and final milestone established by the International Council for Local Environmental Initiatives (ICLEI) Climate Protection Program. Although the City achieved this important milestone, we continue to implement measures designed to reduce impacts to climate change.

GHG emissions were inventoried for the base year of 2000 and for the interim analysis year of 2005. These analyses provide a foundation to base GHG emission reduction goals. Bellingham established an ambitious but achievable goal for reducing our GHG emissions. Based on the findings of the inventory, a survey of existing and possible measures and a review of other community's targets, City staff recommended that Bellingham establish a series of targets for municipal operations and for the entire community. The adopted GHG emission reduction target for city government is substantial: reduce GHG emissions by 64% from 2000 levels by 2012 and by 70% from 2000 levels by 2020 for municipal operations (CPAP, page 10).

For the community, the Climate Protection Action Plan adopts a 7% GHG reduction from 2000 levels by 2012 and 28% from 2000 levels by 2020 (CPAP, page 11).

Climate Change Adaptation

The City of Bellingham recognizes that it is essential to not only mitigate climate change through reduced GHG emissions but also to adapt to a changing climate through long-term planning. Climate change adaptation focuses on increasing our resiliency to impacts associated with a changing climate regardless of the level of mitigation through GHG emission reductions the global community is able to achieve. An example of a climate change adaptation strategy is raising the elevation of development adjacent to the Puget Sound to minimize the risk of sea level rise.

Adapting to climate change involves similar framework, methodology and professional expertise currently underway through emergency management and preparedness programs such as flooding, volcanic eruptions, fires, etc. Adaptive planning also takes into account the impact climate change will have on our natural and built environment.

Climate change is anticipated to result in increased temperatures, decreased snowpack, and in sea level rise. Major sectors that could be affected as a result include hydrology and water resources, energy, coasts, ecosystem function, emergency management, food supply and distribution, public health, land use planning and transportation.

Hydrology and water resource management, energy management, ecosystem management and coastal infrastructure are the management areas impacted by climate change that are of highest priority for the City of Bellingham. The City has drafted a Climate Adaptation Plan which will serve as a guidance document for Phase III of the City's CPAP. Climate change impacts requiring adaptation actions often overlap among management areas and thus will require interdepartmental collaboration to address effectively and offer opportunities for multiple benefits.

Climate change adaptation strategies for Western Washington encourage planning for an sea level rise of 50 inches by the end of the century (University of Washington Climate Impacts Group). Threatened areas include existing coastal infrastructure located within the projected 50-inch sea level rise elevation area and geologically hazardous steep slopes that are likely to be compromised by increased erosion and higher storm surges. Potentially threatened existing coastal infrastructure includes transportation corridors such as railroads, roads, bridges, trails, buildings, water and wastewater distribution systems, and other utility infrastructure including electricity, cable, and natural gas.

PART 7: ENERGY AND RESOURCE CONSERVATION

While the Climate Change section focuses on both mitigation and adaptation, the Energy and Resource Conservation Section focuses specifically on conservation of energy, fossil fuels, water and waste reduction goals. The City has made significant progress in this area.

Municipal Operations

In 2009, the City adopted the Energy and Resource Conservation (ERC) Policy to increase conservation efforts through operational and behavioral changes within municipal operations. The ERC policy is intended to reduce the City's operating costs, preserve jobs, and provide leadership in energy and resource conservation in the community. Ultimately, this policy is designed to ensure a sustainable future by reducing the impact of City government operations on the environment.

In 2005, the City passed Resolution No. 2005-21 requiring new municipal construction greater than 5,000 square feet in size to meet Leadership in Energy and Environmental Design (LEED) Silver standards or greater. Since adoption of this resolution, the City has built the Depot Market Square and the Lightcatcher Museum to meet LEED standards. The Environmental Learning Center was built prior to the resolution but was built with methods and materials similar to LEED Silver standards.

Community

Bellingham was one of the first cities in the nation to be awarded an EPA grant as a Climate Showcase Community. After receiving the grant, the City partnered with several local non-profits and businesses to promote community-wide energy efficiency improvements through the grant focusing on a program called the Community Energy Challenge. This program offers:

- Resources for energy efficiency improvements to commercial and residential facilities
- Reduces barriers to implementing energy efficiency technology
- Trains a workforce to implement building improvements
- Raises awareness of energy conservation opportunities through social marketing

Transportation concurrency is a part of the Growth Management Act (GMA) (RCW36.70A) requiring cities to adopt level of service standards and performance measures to ensure that the transportation system can keep up with growth in the community. The City's Multimodal Transportation Concurrency program is designed to help Bellingham achieve GMA and Comprehensive Plan goals to accommodate infill and reduce sprawl by directing growth to urban villages and other areas of the City. The concurrency program is also intended to complete sidewalks and bicycle lanes throughout the City. Bellingham's innovative program has gained wide recognition and is another example of the City's attempt at seeing GHG reductions and energy and resource conservation.

PART 8: URBAN FORESTRY

Urban forests include everything from the forest of Whatcom Falls Park to the street trees throughout Bellingham that together create a tree canopy providing irreplaceable natural services. [See Exhibit 4]. The purpose of having an urban forestry section in the Comprehensive Plan is to call attention to the social and ecological benefits of trees and an urban forest. Urban forests can be seen as part of a city's essential infrastructure.

As of 2010, the City's existing data (digital infrared imagery combined with high-resolution LIDAR) indicates that 31.9% of Bellingham has a tree canopy, defined as vegetation at least 20 feet high.

The benefits of the urban forest, which also includes the understory plant community, are multifaceted. Many of these attributes are considered ecosystem services because they provide economic value through their environmental function. Some of these include:

- reduces greenhouse gas concentrations and removes pollution
- reduces energy uses in buildings by providing shade and wind protection
- sequesters carbon
- attenuates stormwater; reduces noise
- offers habitat
- stabilizes slopes
- provides refuge in the summer
- gives us a sense of place and beauty

Trees also play a role in the City's drinking water supply. The 2009 Lake Whatcom Reservoir Regulatory Chapter, Bellingham Municipal Code 16.80, requires the "natural forested condition" to be preserved and/or installed for each new development project. The tree canopy intercepts rainwater but the tree root system and associated plants and microbes facilitate water infiltration and nutrient cycling into the ground, thereby limiting runoff laden with phosphorus.

On City properties, trees are managed by Parks and Recreation Department staff. Management tasks include removal of hazards, repairing damage to trees, planting new trees, and removing invasive species. Bellingham has been designated a "Tree City USA" by the Arbor Day Foundation for more than a dozen years in a row.

The urban forest changes over time due to many variables—the economy, government policies, development patterns and pressures, climate change, pests, improper planting or plant

selection, and more. As a result, many communities are adopting Urban Forestry Management Plans to protect the assets provided by the urban forest.

PART 9: GOALS (Note: 'NEW EVG' indicates a new goal. 'A' by the goal number is a reference to Appendix A listing the adopted reference for that goal. All EVGs are in numerical order. All other goals are direct citations from the 2006 Comprehensive Plan.)

A. General Goals

NEW EVG-1 Continue to protect natural systems so that they may continue to provide natural services to our community, keeping our community healthy and livable.

NEW EVG-2 Recognize that Bellingham's quality of life is one of its competitive advantages and promote economic growth that maintains and enhances this quality of life.

B. Lake Whatcom Goals

FGLW-1 Protect the quality of the water in the Lake Whatcom Reservoir to ensure long-term sustainability of the Lake as a drinking water reservoir.

FGLW-2 Reduce the development potential in the Lake Whatcom Reservoir Watershed.

CFV-6 Bellingham's water quality is improved through the pursuit of goals expressed in the Joint Lake Whatcom Watershed Agreement with the county and Water District #10 and through continued efforts to control stormwater quantity and quality.

VB 46 Bellingham's water quality is improved through the pursuit of goals expressed in the Joint Lake Whatcom Watershed Agreement with the County and Water District #10, and through continued efforts to control stormwater quantity and quality.

VB 57 Citizens and property owners join forces to protect the quality of Lake Whatcom, its watershed, the City's other lakes and creeks and Bellingham Bay. Through community education, regulation, performance based development standards, and public and private cooperation, the community as a whole supports protection of these natural resources as a priority.

CFG-26 Recognize Lake Whatcom and its watershed as the major drinking-water reservoir for the county and develop public and private management principles for the lake and watershed consistent with a drinking water reservoir environment.

CFG-27 Protect, preserve and enhance water quality and manage water quantity to ensure long-term sustainable supplies for a variety of uses, with priority placed on domestic water supply. Management programs and actions will be made in recognition of existing contractual agreements and potential for review and renegotiation in light of these goals.

CFG-28 Prioritize protection over treatment in managing Lake Whatcom and its watersheds. Management actions shall reflect a long-term view of replacement or treatment costs.

CFG-29 Manage water quantity to sustain long-term efficient use of the water for beneficial uses within the county that are consistent with a drinking-water reservoir, and recognize the

integral link with the Nooksack River and associated water resource concerns.

CFG-30 Ensure that opportunities for public comment and participation are provided in policy and management program development, and promote public awareness and responsible individual actions.

CFG-31 Promote learning, research, and information opportunities which better our understanding of the watershed system, the impacts of activities, and the benefits and potentials of policies implemented.

C. Shoreline Goals

See the latest adopted Shoreline Master Program (SMP) for the SMP goals.

D. Critical Areas Goals

VB 57 Citizens and property owners join forces to protect the quality of Lake Whatcom, its watershed, the City's other lakes and creeks and Bellingham Bay. Through community education, regulation, performance based development standards, and public and private cooperation, the community as a whole supports protection of these natural resources as a priority.

VB 59 Undisturbed natural areas allow habitat for fish and wildlife, provide connections within greenway corridors and protect steep slopes and sensitive areas. Greenways in Bellingham connect with similar corridors in the urban fringe. Mechanisms to retain these open areas range from public acquisition to clustering development on adjacent portions of sites, and from regulatory requirements to regulatory incentives.

LU-127 Shorelines, wetlands, and steep hillsides should be protected or impacts mitigated in accordance with adopted standards.

NEW EVG-3 Continue to implement GMA and Comprehensive Plan goals aimed at environmental protection and maintaining quality of life through the implementation of the Critical Areas Ordinance.

EVG-4A Preserve and protect significant environmental features including unique wetlands, woodlands, prairies, meadows, shorelines, waterfronts, wooded hillsides, and other characteristics that support wildlife and reflect Bellingham's resource.

E. Fish & Wildlife Habitat Restoration Goals

CFG-7 Manage stormwater in concert with State and Federal plans to improve the quality of our streams and marine waters.

FLU-6 Protect and enhance the quality of the natural environment by protecting and restoring important critical areas such as streams, wetlands, lakes, and Bellingham Bay, and by retaining significant trees and other natural resources.

LU-144 Bellingham recognizes the requirement for, and substantial benefit of, incorporating the use of "best available science" in the overall management of critical areas and natural resource protection.

LU-145 Citizens value those plants and animal species that help characterize our community and establish our unique identity (such as those listed in the 1995 Wildlife and Habitat Assessment Plan). From time to time, such species may be designated as “species of local significance” by City Council resolution, thereby elevating their status and consideration for additional protection.

LU-146 Our community acknowledges the tremendous ecological value of anadromous fish, given their potentially broad geographic range, and the responsibility that comes with providing for their enduring lifecycle and habitat needs. We have a long-term commitment to enhance this resource.

LU-147 As Bellingham grows, we are mindful of our natural surroundings and the value of all living creatures. Our community will provide habitat for wildlife, established and maintained via a system of interconnected stream and trail corridors, shorelines, open spaces, and parks in areas of high habitat value.

F. Climate Change Adaptation Goals

NEW EVG-5 When feasible, identify public and private infrastructure vulnerable to a sea level rise of up to 22 inches by 2050 and 50 inches by 2100, based on low probability, high-impact estimates.

NEW EVG-6 Preserve existing water supply and ensure adequate future water supply, despite capacity impacts associated with climate change.

NEW EVG-7 Share data and emerging science on sea level rise with managers of habitat restoration projects in order that the projects have the opportunity to incorporate this information in project.

EVG-8A Reduce GHG emissions by 70% from 2000 levels by 2020 for municipal operations.

EVG-9A Reduce GHG emissions by 28% from 2000 levels by 2020 for the community.

G. Energy and Resource Conservation Goals

VB 19 Bellingham’s employment base combines public and private resources to increase economic diversity emphasizing renewable resources, clean and quiet industry, higher paying family wage jobs, small business, and home-based cottage industries.

VB 20 Bellingham’s economy builds on the educational research, teaching facilities and technical resources provided by Western Washington University, as well as building on the community and technical college resources.

VB 44 Bellingham is characterized by clean air and water and low levels of noise pollution. Particular attention is paid to noise pollution from the I-5 corridor, the airport noise impact area, and the waterfront industrial area.

VB 45 Bellingham reduces noise pollution and increases air quality by reducing its reliance on the automobile and promoting walking, bicycling and other modes of transportation.

FLU-8 Emphasize Bellingham's role as an environmental steward by conducting business in a manner that : 1) increases community understanding of the natural environment and participation in protecting it through education and programs, 2) promotes sustainable land use patterns and low-impact development practices and 3) leads by example in the conservation of natural resources such as energy, water and trees, and avoidance of adverse environmental impacts.

TV-5 Bellingham reduces noise pollution and increases air quality by reducing its reliance on the automobile and promoting walking, bicycling, and other modes of transportation.

TG-2 Encourage and provide for energy efficient means of transportation in Bellingham.

TG-6 Provide a transportation system which minimizes environmental and social impacts and reduces reliance on fossil fuels.

TP-31 Improve air quality by reducing vehicle exhaust emissions by promoting: alternatives to the single occupant vehicle; use of cleaner fuels; and, improving the operating efficiency of the transportation system.

TP-32 Promote energy conservation by implementing transportation demand management policies and through the use of alternative fuels.

TP-61 Give high priority to developing and maintaining nonmotorized transportation facilities that lessen impacts on the environment and reduce energy consumption, such as the bicycle and pedestrian trails network.

TP-86 Explore and utilize, where feasible and cost effective, existing and emerging technologies for alternative fuels and fuel efficiency measures for transit vehicles.

CFP-9 An aggressive water conservation program including distribution of water saving devices along with public education has been implemented and will help to limit water waste. Continued implementation and development of this program is a priority.

CFP-15 Produce measurable cost-benefit through reduced operating costs to the City (generally public buildings, remodeling or other public improvements).

CFP-57 An aggressive water conservation program including distribution of water saving devices along with public education has been proposed and will help to limit water waste. Continued implementation and development of this program is a priority.

PUG-4 Reduce demand for new energy generation and resources through support of conservation policies and strategies.

CDP-55 The design of a building, its location on the site, and its layout should respond to specific site conditions such as topography, natural features and solar orientation.

CDP-8 Energy efficient designs should be encouraged in all residential structures.

NEW EVG-10 Investigate sewage heat recovery and utilization for municipal operations and private development.

NEW EVG-11 Investigate economic feasibility of development and implementation of potential district heating systems.

NEW EVG-12 Highlight existing opportunities to reduce employee commute trips and vehicle miles traveled.

EVG-13A HVAC systems for municipal facilities shall be operated efficiently to conserve energy.

EVG-14A Increase efficiency of water and energy use and reduce waste generated from municipal facilities.

H. Urban Forestry Goals

VB-3 Bellingham continues to retain its natural, green setting by protecting unique natural features and public open spaces, creating greenbelts and preserving wooded hillsides in and around the City. New development is encouraged to incorporate existing mature vegetation and additional trees and native vegetation. Open space corridors along creeks include connections from the Bay to Whatcom and Padden lakes as well as along the Squalicum and Chuckanut Creek corridors heading to the mountains. In order to preserve or create these green corridors and open spaces, the community employs a variety of techniques, including incentives and regulations for the design and siting of new development, as well as public acquisition.

FLU-6 Protect and enhance the quality of the natural environment by protecting and restoring important critical areas such as streams, wetlands, lakes, and Bellingham Bay, and by retaining significant trees and other natural resources.

FLU-8 Emphasize Bellingham's role as an environmental steward by conducting business in a manner that : 1) increases community understanding of the natural environment and participation in protecting it through education and programs, 2) promotes sustainable land use patterns and low-impact development practices and 3) leads by example in the conservation of natural resources such as energy, water and trees, and avoidance of adverse environmental impacts.

VB 44 Bellingham is characterized by clean air and water and low levels of noise pollution. Particular attention is paid to noise pollution from the I-5 corridor, the airport noise impact area, and the waterfront industrial area.

LU-128 Destruction of significant natural features should be minimized.

LU-129 Water and air quality should be maintained and/or enhanced through the development and/or enforcement of environmental regulations.

LU-144 Bellingham recognizes the requirement for, and substantial benefit of, incorporating the use of "best available science" in the overall management of critical areas and natural resource protection.

LU-145 Citizens value those plant and animal species that help characterize our community and establish our unique identity (such as those listed in the 1995 Wildlife and habitat Assessment Plan). From time to time, such species may be designated as "species of local

significance” by City Council resolution, thereby elevating their status and consideration for additional protection.

EVG-15A Provide operation and maintenance resources for forestry management, habitat protection and code enforcement in existing and new open space areas.

PART 10: POLICIES (Note: 'EVP' indicates a new policy. 'A' by the policy number is a reference to Appendix A listing the adopted reference for that policy. All EVPs are in numerical order. All other policies are direct citations from the 2006 Comprehensive Plan.)

A. General Policies

WFGP-2: Restore the Health of Land & Water:

- Enhance or reintroduce natural systems.
- Create and restore habitat wherever possible.
- Remediate upland and in-water contamination.
- Protect existing natural shorelines.
- Seek opportunities to soften existing hardened shorelines.
- Tailor environmental cleanup strategies and remediation to planned use.
- Manage stormwater to enhance estuarine habitats.
- Require sustainable practices in all development.
- Restore, enhance and expand beaches wherever possible.
- Connect proposed open space and natural areas to regional open space network and wildlife corridors.
- Explore mitigation banking and incentives (such as environmental credits) for environmental resource protection and enhancement prior to redevelopment.

NEW EVP-1 Continue coordination between City departments on the management of open space of all kinds, including undeveloped street rights-of-way, in a manner that achieves the Legacies and Strategic Commitments for this chapter.

B. Lake Whatcom Policies

LU-131 Support the ongoing goals, policies and adopted work program of the Lake Whatcom Reservoir Inter-jurisdictional Coordinating Team.

LU-132 Prioritize protection over treatment in managing the Lake Whatcom Reservoir and its watershed. Management actions shall reflect a long term view of replacement or treatment costs.

LU-133 Ensure that opportunities for public comment and participation are provided in policy and management program development, and to promote public awareness and responsible individual actions.

LU-134 Promote learning, research, and information opportunities which better our understanding of the watershed system, the impacts of activities, and the benefits and potentials of policies implemented.

LU-135 Implement programs regulations, and/or incentives that result in land use practices by watershed residents and users that protect the water quality of the Lake Whatcom Reservoir to the fullest extent possible.

LU-136 Work with Whatcom County, the Lake Whatcom Water and Sewer District, the Sudden Valley Association, and individual property owners to purchase land, rezone properties, consolidate lots, transfer development rights, and educate the public about the benefits of reducing potential development in the Lake Whatcom Reservoir Watershed.

LU-137 Undeveloped portions of the Geneva UGA that are in the Lake Whatcom Watershed should be removed from Bellingham's UGA.

LU-138 Designate receiving zones for development rights transferred from the Lake Whatcom Reservoir Watershed in areas of the City appropriate for higher densities such as the urban centers.

LU-139 Implement "low impact development" techniques for all new residential development and infrastructure projects in the Lake Whatcom Reservoir Watershed.

LU-140 Encourage existing residentially developed areas in the Lake Whatcom Reservoir Watershed to implement "low impact development" techniques where possible.

NEW EVP-2 Continue to work in collaboration with the County toward meeting Dept. of Ecology Total Maximum Daily Load (TMDL) requirements.

NEW EVP-3 Continue to explore funding options to implement the Lake Whatcom Management Plan and related Total Maximum Daily Load (TMDL) efforts to reduce phosphorus entering the lake.

NEW EVP-4 Emphasize prevention of invasive species entering Lake Whatcom, particularly invasive mollusks, and address existing invasive species

C. Shoreline Policies

See the latest adopted Shoreline Master Program (SMP) for the SMP policies.

WFGP 3 Improve Waterfront Access: Protect and enhance environmental resources when designing for shoreline access and upland development.

D. Critical Areas Policies

FLU-6 Protect and enhance the quality of the natural environment by protecting and restoring important critical areas such as streams, wetlands, lakes and Bellingham Bay, and by retaining significant trees and other natural resources.

LU-144 Bellingham recognizes the requirement for, and substantial benefit of, incorporating the use of "best available science" in the overall management of critical areas and natural resource protection.

LU-145 Citizens value those plants and animal species that help characterize our community and establish our unique identity (such as those listed in the 1995 Wildlife and Habitat

Assessment Plan). From time to time, such species may be designated as “species of local significance” by City Council resolution, thereby elevating their status and consideration for additional protection.

LU-146 Our community acknowledges the tremendous ecological value of anadromous fish, given their potentially broad geographic range, and the responsibility that comes with providing for their enduring lifecycle and habitat needs. We have a long-term commitment to enhance this resource.

LU-147 As Bellingham grows, we are mindful of our natural surroundings and the value of all living creatures. Our community will provide habitat for wildlife, established and maintained via a system of interconnected stream and trail corridors, shorelines, open spaces, and parks in areas of high habitat value.

EVP-5A Development should take appropriate steps to avoid shoreline modification and stabilization, utilize a range of Low Impact Development techniques, minimize site disturbance, and avoid or minimize impacts to critical areas within shorelines.

EVP-6A Bellingham’s shorelines and their ecological functions should be inventoried simultaneous with future updates to the Shoreline Master Program and the City’s Critical Areas Ordinance in order to determine if there has been a net gain in overall ecological function of our shoreline areas and within our watersheds.

EVP-7A Preservation of ecological function of shorelines including critical areas should have priority over public access, recreation and development objectives whenever a conflict exists.

EVP-8A Critical areas that are within the shoreline jurisdiction are to be protected and managed in such a manner that the result of any use activity or development is no net loss of shoreline ecological function, and is in accordance with the standards and requirements within this Title.

EVP-9A Critical areas within the shoreline jurisdiction should be protected and restored by integrating the full spectrum of planning and regulatory measures, including the comprehensive plan, inter-local watershed plans, local development regulations, and state, tribal, and federal programs.

EVP-10A The City should protect critical areas and their existing shoreline ecological functions so that they continue to contribute to existing ecosystem-wide processes.

EVP-11A The City and other special interest groups, organizations or non-profit entities should restore and enhance degraded critical areas as separate restoration projects to improve existing shoreline ecological functions and ecosystem-wide processes, where feasible and appropriate.

E. Fish and Wildlife Habitat Restoration Policies

Restoration - General Policies

FLU-6 Protect and enhance the quality of the natural environment by protecting and restoring important critical areas such as streams, wetlands, lakes and Bellingham Bay, and by retaining significant trees and other natural resources.

EVP-12A Define and preserve a system of open space corridors and buffers to provide separation between natural areas and urban land uses within the Bellingham developing area.

EVP-13A Provide natural area and open space linkages within developed areas.

EVP-14A Preserve environmentally sensitive areas as natural area linkages, habitat corridors and urban buffers.

EVP-15A Preserve unique environmental features or areas in future land developments and increase public use and access. Cooperate with other public and private agencies and with private landowners to set aside unique features or areas as publicly accessible resources.

Restoration - Implementation Policies

EVP-16A Restoration and conservation should occur via comprehensive restoration planning, public land acquisition, conservation easements, site design and as development / redevelopment occurs. Activities that restore and enhance ecological functions of our shorelines should be emphasized.

EVP-17A Balance the desire for public access and interpretive education with preservation of environmentally sensitive areas and sites that are especially unique to the Bellingham area where appropriate.

EVP-18A Restoration planning should include incentives and other means to restore water connections that have been impeded by previous development and provisions to protect hydrologic connections between water bodies, watercourses, and associated wetlands.

EVP-19A Comprehensive restoration planning should implement a framework of citywide restoration goals and priorities including for the non-SMA stream drainages and wetlands contributing to the shoreline of the state. Restoration planning should also prioritize projects so that when resources are made available, projects will already be identified for their anticipated improvements to our natural systems.

Restoration - Specific Resources Policies

LU-147 As Bellingham grows, we remain mindful of our natural surroundings and the value of all living creatures. Our community will provide habitat for wildlife, established and maintained via a system of interconnected stream and trail corridors, shorelines, open spaces, and parks in areas of high habitat value.

EVP-20A Identify and conserve wildlife habitat including nesting sites, foraging areas, and migration corridors within or adjacent to natural areas, open spaces, and the developed urban area.

EVP-21A Preserve and protect significant environmental features including unique wetlands, woodlands, prairies, meadows, shorelines, waterfronts, wooded hillsides, and other characteristics that support wildlife and reflect Bellingham's resources.

EVP-22A Preserve and protect habitat sites that support threatened species and urban wildlife.

EVP-23A Lagoons that are defined as pocket estuaries and pocket beaches, despite being heavily impacted over time, should be restored and protected for their ability to support a variety of marine and upland species, especially salmon.

Restoration - Specific Geographic Policies

EVP-24A Shorelines of Lake Whatcom should be restored in such a manner that bulkheads are removed, in-water structures are minimized, and a variety of native vegetation is planted within close proximity to the shoreline so that natural processes are reintroduced.

EVP-25A Squalicum, Whatcom, Padden and Chuckanut Creek estuaries as well as other tidally influenced lagoons or pocket estuaries and pocket beaches should be restored in order to provide an improved level of habitat function and processes. These pocket estuaries are valuable for their diversity of aquatic and upland species habitat opportunities and their ability to support non-natal anadromous fish. As redevelopment occurs adjacent to these areas, these estuaries should be restored to achieve the following:

- Improved tidal floodwater attenuation;
- Improved nutrient filtering and recycling;
- Higher quality shellfish habitat;
- Increased biological support and habitat value for juvenile salmonids other upland species;
- Shoreline stabilization and large woody debris (LWD) recruitment via native vegetation.

Restoration - Land Acquisition Policies

EVP-26A Acquire additional salt waterfront land and tidelands whenever possible to expand the network of open space along Bellingham Bay.

EVP-27A Acquire additional lakefront and creekfront land whenever possible to provide increased access to all Bellingham water resources.

Restoration - Coordination Policies

NEW EVP-28 Share data and emerging science on sea level rise with managers of habitat restoration projects in order that the projects have the opportunity to incorporate this information in project.

EVP-29A The City and other special interest groups, organizations or non-profit entities should restore and enhance degraded critical areas as separate restoration projects to improve existing shoreline ecological functions and ecosystem-wide processes, where feasible and appropriate.

EVP-30A Shoreline restoration and conservation efforts should be coordinated with Whatcom County, Port of Bellingham and other public agencies, especially for shoreline systems whose watersheds extend into County jurisdiction.

EVP-31A The Nooksack Tribe, Lummi Nation, Corps of Engineers, Washington Department of Ecology, Washington Department of Fish and Wildlife and other appropriate resource agencies should be included at the beginning of the design and development stages of a restoration project or plan.

Water Quality and Quantity - General Policies

LU-143 Establish land uses, development densities, impervious surface coverage and stormwater standards that minimize flooding, streambank erosion, and loss of aquatic and other habitat.

CFP-3 Work to reduce the amount of water pollutants from stormwater runoff and combined sewer overflows.

CFP-40 Design of drainage systems should incorporate measures to maintain or increase the fisheries resource in the natural drainage system.

Water Quality and Quantity - Specific Action Policies

CFP-44 All storm sewers should be designed to carry major storms without significantly increasing stream erosion and flood damage.

EVP-32A Drainage from single-family residences should not be tight-lined directly to or over shoreline bluffs or steep banks. Drainage, to the maximum extent feasible, should be designed or retrofitted to include water quality measures that filter out pollutants common to single-family residences such as fertilizers and pesticides, and should be discharged at a point that does not prematurely erode the shoreline or the face or toe of the bank or bluff.

Water Quality and Quantity - Natural Services Policies

CFG-6 Minimize conventional storm drainage design and where possible, rely upon those alternative approaches and low-impact development techniques that recognize the improvement of natural watercourses and wetlands in maintaining a viable drainage system.

EVP-33A Current (2005) stormwater standards and Low Impact Development techniques should be used for development on shoreline parcels where site conditions allow. Low Impact Development techniques within the 2005 Department of Ecology Stormwater Management Manual for Western Washington should be incorporated into site design to minimize impacts on water quality and ecological function where appropriate.

EVP-34A Impervious surfaces should be reduced or minimized and native vegetation of a height and species sufficient to provide shade and filtration to adjacent water bodies should be retained or established to help reduce pollutant loading to shorelines, especially Lake Whatcom, and other water bodies that are listed on the Department of Ecology's 303(d) list. (33 USC 1313d, RCW 90.48, WAC 173-201A and WAC 173-204.)

Water Quality and Quantity - Education/Coordination Policies

LU-141 Encourage and work with Whatcom County to adopt regulations that restrict or prohibit land use practices and activities that cumulatively impact water quality.

CFP-2 Bellingham and Whatcom County shall cooperate to protect water quality and quantity within watersheds and marine water bodies which cross jurisdictional boundaries.

EVP-35A Existing public stormwater management systems and facilities should be retrofitted and improved to incorporate LID techniques whenever feasible and as specified in BMC 15.42.

EVP-36A Ensure mutual consistency between shoreline management provisions and other regulations that address water quality and stormwater quantity, including public health, stormwater, and water discharge standards. The regulations that are most protective of ecological functions shall apply.

F. Climate Change Policies

NEW EVP-37 Encourage energy conservation within municipal operations and throughout the community.

NEW EVP-38 Encourage development of public and private partnerships with higher education institutions, non-profits organizations and other agencies to reduce GHG emissions.

G. Energy and Resource Conservation Policies

LU-33 Encourage energy-efficient site and building designs to increase efficiency and preserve natural resources.

LU-105 Encourage the use of long-lived, low maintenance building materials and high efficiency energy systems to reduce building life cycle cost.

LU-106 Promote and encourage the use of “Built Green” and/or “LEED” principles in all new housing developments.

LU-129 Water and air quality should be maintained and/or enhanced through the development and/or enforcement environmental regulations.

LU-130 Develop more thorough environmental studies of sensitive areas and specify potential mitigating measure in the neighborhood plans, thereby reducing the need for extensive environmental review of projects and reliance on SEPA negotiations for routine permits.

HP-31 Encourage the use of long-lived, low-maintenance building materials and high-efficiency energy systems to reduce housing life cycle costs.

PUP-18 Support energy efficient construction codes.

PUP-9 Encourage siting of residences to increase solar access. Minimize blockage of access to sunlight for adjoining residences to the extent feasible.

PUP-20 Encourage tree planting to save heating and cooling energy and to provide wind breaks. Balance tree planting efforts with the need for solar access and the desire to protect views in certain areas.

PUP-21 Seek ways to promote energy conservation in City of Bellingham facilities and operations.

NEW EVP-39 Continue water conservation efforts for municipal operations and the community.

NEW EVP-40 Encourage non-motorized transportation systems to reduce vehicle trips.

EVP-41A HVAC equipment within municipal operations shall be operated to provide the indoor climate that is appropriate for the specific activity, meet indoor air quality standards and protect equipment.

EVP-42A Lighting, signage and electrical appliances/equipment for municipal facilities shall be operated efficiently to conserve energy.

EVP-43A Municipal facilities shall utilize water efficiently through the following: Inefficient water fixtures shall be retrofitted with efficient fixtures when feasible based upon a return on investment analysis and landscaping planting/replacement and irrigation scheduling shall be designed to conserve water.

EVP-44A Reduce waste generated from municipal facilities through increased opportunities, capacity and education for recycling.

EVP-45A Facility size, energy efficiency, operating function, hours of operation, building age, community benefit, long-term plan for relocation, remodel history, and age of HVAC equipment shall be used in prioritizing energy efficiency projects from a facility level.

EVP-46A Cost, energy conserved, utility rebate potential, and essential maintenance shall be used in prioritizing energy efficiency projects from a project level.

EVP-47A Energy efficiency projects within municipal operations shall be monitored to report energy use and cost savings.

H. Urban Forestry Policies

VB 3 Bellingham continues to retain its natural, green setting by protecting unique natural features and public open spaces, creating greenbelts and preserving wooded hillsides in and around the City. New development is encouraged to incorporate existing mature vegetation and additional trees and native vegetation. Open space corridors along creeks include connections from the Bay to Whatcom and Padden lakes as well as along the Squalicum and Chuckanut Creek corridors heading to the mountains. In order to preserve or create these green corridors and open spaces, the community employs a variety of techniques, including incentives and regulations for the design and siting of new development, as well as public acquisition.

FLU-6 Protect and enhance the quality of the natural environment by protecting and restoring important critical areas such as streams, wetlands, lakes, and Bellingham Bay, and by retaining significant trees and other natural resources.

FLU-8 Emphasize Bellingham's role as an environmental steward by conducting business in a manner that : 1) increases community understanding of the natural environment and participation in protecting it through education and programs, 2) promotes sustainable land use patterns and low-impact development practices and 3) leads by example in the conservation of natural resources such as energy, water and trees, and avoidance of adverse environmental impacts.

LU-127 Shorelines, wetlands, and steep hillsides should be protected or impacts mitigated in accordance with adopted standards.

LU-128 Destruction of significant natural features should be minimized.

LU-129 Water and air quality should be maintained and/or enhanced through the development and/or enforcement of environmental regulations.

LU-144 Bellingham recognizes the requirement for, and substantial benefit of, incorporating the use of "best available science" in the overall management of critical areas and natural resource protection.

LU-145 Citizens value those plant and animal species that help characterize our community and establish our unique identity (such as those listed in the 1995 Wildlife and Habitat Assessment Plan). From time to time, such species may be designated as "species of local significance" by City Council resolution, thereby elevating their status and consideration for additional protection.

Appendix

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EVG-13A	Internal Public Works Policy - PWK 19.00.01
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EVG-15A	Parks, Recreation and Open Space Plan - Section 5.2.i, Page 33
EVP-5A	2012 Shoreline Master Program - Section 22.02.20(B)(2)(c), Page 8
EVP-6A	2012 Shoreline Master Program - Section 22.02.20(B)(2)(m), Page 10
EVP-7A	2012 Shoreline Master Program - Section 22.03.30(A)(2)(e), Page 21
EVP-8A	2012 Shoreline Master Program - Section 22.08.30(A)(1), Page 71
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EVP-25A	2012 Shoreline Master Program - Section 22.02.20(B)(2)(k), Page 9
EVP-26A	Parks, Recreation and Open Space Plan - Section 6.5, Page 45
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EVP-29A	2012 Shoreline Master Program - Section 22.08.30(A)(4), Page 71
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EVP-47A	Internal Public Works Policy - PWK 19.00.01

Exhibit 1

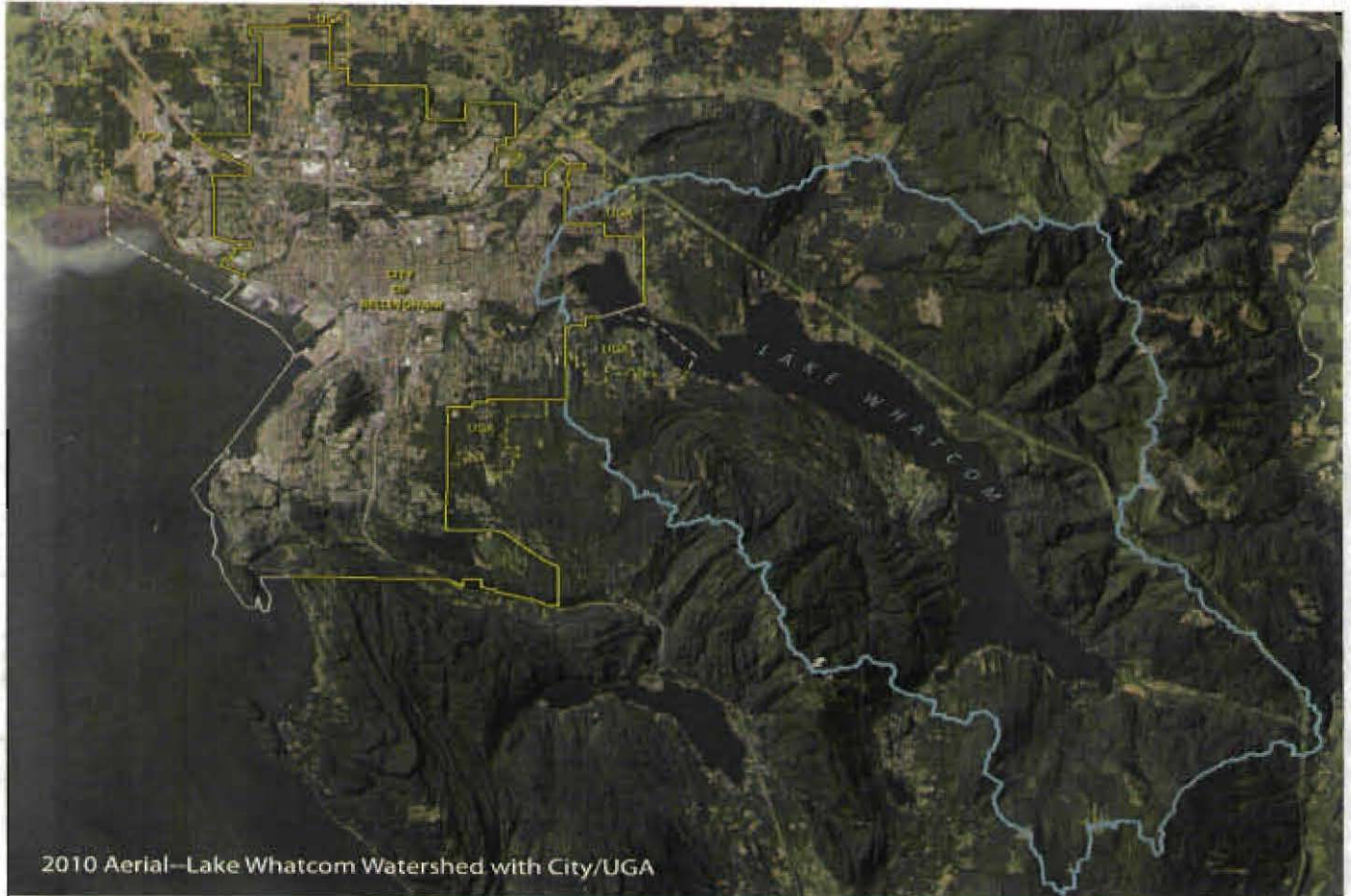


Exhibit 2

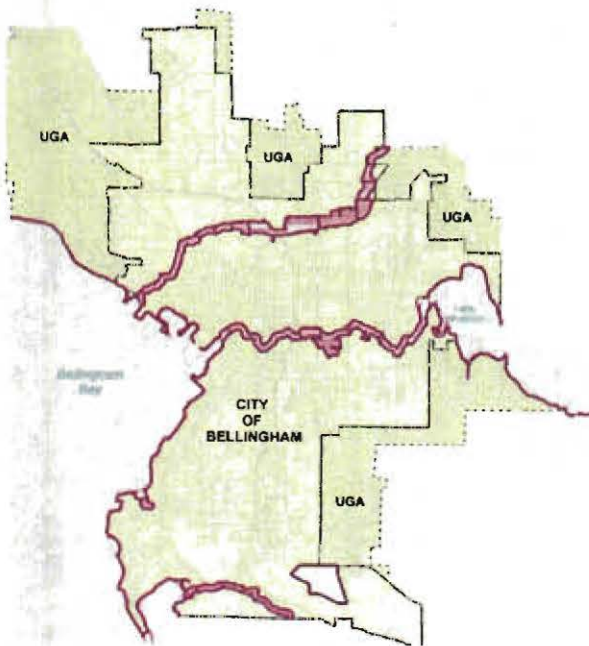
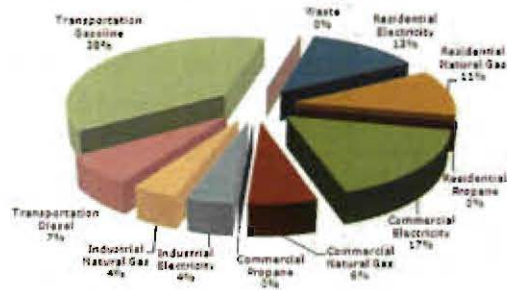


Exhibit 3

In the base year 2000, the community of Bellingham emitted approximately 950,793 tons of eCO₂. By far the largest single sector was transportation in which diesel and gasoline emissions together accounted for 44.2% of all emissions in Bellingham in 2000. Gasoline emissions alone accounted for 37.3% of total community emissions. When electricity based emissions from residential, commercial and industrial sectors are combined, they accounted for 34.7% of the total community emissions. The figure below shows the breakdown of community emissions by sector and source type.



Bellingham community greenhouse gas emissions - 2000
Source: CACP Model output

Exhibit 4



June 10, 1999
Whatcom Creek
after Fire



May 18, 2009
Whatcom Creek
after Restoration