CHAPTER 5
SHORELINES

I. Introduction

A. Recitals

King County adopts the following, which are based on the Shoreline Management Act legislative findings in RCW 90.58.020. These recitals represent King County's belief and agreement that a coordinated approach to utilizing, managing, and protecting the shoreline resource is necessary and essential. These recitals apply to the shoreline jurisdiction.

1. Shorelines are some of the most valuable and fragile of King County's natural resources. There is appropriate concern throughout the county relating to the utilization, protection, restoration, and preservation of the shoreline jurisdiction.
2. Ever increasing pressures of additional use are being placed on the shoreline jurisdiction, which in turn necessitates increased coordination in its management and development.
3. Much of the shoreline jurisdiction and the uplands adjacent thereto are in private ownership. Unrestricted construction on the privately owned or publicly owned shorelines is not in the best public interest; and therefore, coordinated planning is necessary in order to protect the public interest associated with the shoreline jurisdiction while recognizing and protecting private property rights consistent with the public interest.
4. There is a clear and urgent demand for a planned, rational, and concerted effort, jointly performed by federal, state, and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of King County's shoreline jurisdiction.
5. It is the intent of King County to provide for the management of the shoreline jurisdiction by planning for and fostering all reasonable and appropriate uses. This program is designed to insure the development in a manner that, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest.
6. King County shoreline policies are intended to protect against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.
7. In the implementation of this chapter, the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines shall be preserved to the greatest extent feasible consistent with the overall best interest of the state, the county, and the people generally. To this end uses shall

be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the state's shoreline.

8. Alterations of the natural condition of the shoreline jurisdiction, in those limited instances when authorized, shall be given priority for single family residences and their appurtenant structures, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines, industrial and commercial developments that are particularly dependent on their location on or use of the shoreline jurisdiction, and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines.
9. Shorelines and shorelands in King County shall be appropriately designated and these classifications shall be revised when circumstances warrant, regardless of whether the change in circumstances occurs through man-made causes or natural causes. Any areas resulting from alterations of the natural condition of the shorelines and shorelands no longer meeting the definition of "shorelines of the state" shall not be subject to the provisions of King County Shoreline Master Program.
10. Permitted uses in the shorelines zone shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline jurisdiction and any interference with the public's use of the water.

B. About King County & King County Shorelines

1. Geography

King County covers 2,130 square miles and extends from Puget Sound in the west to 8,000-foot Mt. Daniel at the Cascade crest in the east. King County's shoreline jurisdiction includes saltwater coastline, river floodplains, and extensive lakes and streams.

2. King County's shoreline jurisdiction

King County's diverse shorelines fringe or flow into Puget Sound. Puget Sound and surrounding lowland lakes and river valleys are relatively young in geologic terms. Puget Sound is a glacially-carved, deep fjord between the Cascade and Olympic mountains.

Puget Sound is King County's link to the Pacific Ocean via two connections: the Strait of Juan de Fuca and the Strait of Georgia. Water, people and a diverse array of fish and wildlife travel freely between the ocean and King County via Puget Sound and these Straits.

Puget Sound is a large estuary complex created by the freshwater it receives from streams, rivers and springs and tidal exchange introduced through the two Straits. It is one of the more prominent and

productive estuaries in the world. In 1988, it was identified as an Estuary of National Significance by the United States government. Within Puget Sound are numerous small to large estuaries. The largest estuary in King County is the Green-Duwamish, although it is now a small remnant of its pre-development state.

Puget Sound consists of five basins. King County's portion of Puget Sound lies within the Central Basin and includes Vashon-Maury Island. The Central or Main Basin extends from Admiralty Inlet to Tacoma Narrows. It is the largest and deepest of the basins. The major drainages to the Central Basin, including Cedar River/Lake Washington watershed (including Lake Sammamish and the Sammamish River), the Green-Duwamish watershed, and Puyallup River/White River watershed, drain a total area of about 2,700 square miles and contribute slightly less than 20% of Puget Sound's freshwater input. The Snohomish watershed (including the Snoqualmie River Basin that lies mostly in King County) outlet into Puget Sound lies in Everett.

Puget Sound is located in a region that has great overlap between valuable natural resources and a burgeoning human population. The productivity, diversity and value of the resources are greatly affected by the extent and density of the population. Due to proximity to transportation routes and abundant food and water resources, most of the region's human development since the mid-1800s, when settlers of European descent started to explore and develop the region, has occurred along Puget Sound's shorelines, large lakes and rivers.

C. Washington State's Shoreline Management Act

1. Overview of Shoreline Management Act

Washington's Shoreline Management Act (SMA) was passed by the Legislature in 1971 and adopted by the public in a 1972 referendum. The goal of the SMA is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines."

The act establishes a broad policy giving preference to uses that:

- Protect the quality of water and the natural environment,
- Depend on proximity to the shoreline ("water-dependent uses"), and
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

The SMA establishes a balance of authority between local and state government. Cities and counties are the primary regulators but the state, through the Department of Ecology (Ecology), has authority to review local shoreline master programs and shoreline permit decisions.

Under the SMA, each city and county adopts a shoreline master program that is based on Ecology's shoreline master program rules or guidelines, but tailored to the specific needs of the community. More than 200 cities and all 39 counties have shoreline master programs. Local shoreline master programs combine both plans and regulations. The plans are a comprehensive vision of how shoreline areas will be used and developed over time. Regulations are the standards that shoreline projects and uses must meet.

Ecology provides technical assistance to local governments undertaking master program amendments. Master programs and master program amendments are only effective after Ecology's approval. In reviewing master programs, Ecology is limited to a decision on whether or not the program is consistent with the policy and provisions of the SMA and Ecology's guidelines.

Local governments may modify master programs to reflect changing local circumstances, new information, or improved shoreline management approaches. All changes to master programs require public involvement and Ecology approval. At a minimum, local governments must hold public hearings.

In 2003, Ecology adopted revised state guidelines. Cities and counties with shoreline master programs are required to update their shoreline master programs to bring them into compliance with these new state guidelines.

2. History of shoreline management in King County

King County adopted its original Shoreline Master Program (SMP) through two ordinances adopted by the King County Council and approved by the King County Executive, John Spellman, on May 2, 1978. Ordinance 3692 adopted the Shoreline Master Plan, which established the goals, objectives, and policies of the King County SMP. Ordinance 3688 adopted the development regulations that implemented the Shoreline Master Plan. By a letter dated June 30, 1978, Ecology stated that it had approved King County's SMP.

The 1978 Shoreline Master Plan addressed the required elements of the shoreline guidelines originally adopted by Ecology in 1972. The 1978 Plan established goals, objectives, and policies for eight different shoreline elements. For each of the four shoreline environments, it also established general policies.

The 1978 Plan stated that:

> "Each environment represents a particular emphasis in the type of uses and the extent of development that should occur within it. The system is designed to encourage uses in each Environment which enhance the character of the Environment while at the same time requiring

reasonable standards and restrictions on development so that the character of the Environment is not destroyed."

Finally, the 1978 SMP included general policies for a variety of different shoreline use activities, including agriculture, mining, recreation, and residential development. Associated shoreline regulations establish the designation criteria, the allowed uses, and development standards for the four shoreline environments recognized by the 1972 state guidelines.

In 1990, the King County Council adopted regulations governing environmentally sensitive areas, some of which include areas also within shoreline jurisdiction. (Ordinance 9614) King County updated its critical areas regulations effective January 1, 2005. (Ordinances 15032, 15033, and 15034) King County's Critical Areas Regulations and its SMP both provide that the regulations that are most protective of the environment apply in the case of a conflict.

3. Shoreline jurisdiction under the SMA

Shorelines of the State in King County, as defined by the SMA, include all marine waters, lakes greater than 20 acres, and rivers and streams with a minimum of 20 cubic feet per second (cfs) mean annual flow. The shoreline jurisdiction includes these water bodies and shorelands. Shorelands are defined as those areas extending landward for two hundred feet from the ordinary high water mark, floodways and contiguous floodplain areas landward two hundred feet from such floodways, and all associated wetlands and river deltas. King County currently includes the 100-year floodplain in its shoreline jurisdiction. Shoreline jurisdiction under the Shoreline Management Act does not include tribal reservation lands or lands held in trust by the federal government for the tribes.

Table S-1 below shows the number of shoreline miles managed under King County's SMP.

Table S-1. Miles of shoreline under King County's jurisdiction

Shoreline (miles)		
Lake	**River/Stream**	**Marine**
234	1,696	51

D. King County's Shoreline Master Program

The SMP adopted by King County provides a legal framework for decision making on land use and other activities that complies with the SMA. This section describes the elements of the SMP, with the details being further developed throughout this chapter.

1. Components of the Shoreline Master Program

The King County SMP consists of this chapter and the implementing shoreline management regulations.

This chapter describes King County's shoreline goals and policies. It addresses the shoreline jurisdiction, overall shoreline policy goals, shoreline element policies, SMP relationship to other laws, shoreline environment designations, environmental protection, shoreline use and modification, and administrative policies. The following documents provide supporting information for these goals and policies:

King County Shoreline Protection and Restoration Plan (September 2010): The Shoreline Protection and Restoration Plan summarizes the methods and results of King County's shoreline analysis with respect to restoration planning, the elements and applicability of the restoration plan, and the ways in which shoreline restoration is expected to occur over time.

King County Shoreline Public Access Plan (September 2010): The Shoreline Public Access Plan includes an inventory of existing formal and informal shoreline public access opportunities in the unincorporated area, and identifies gaps in public access opportunities. The Shoreline Public Access Plan describes King County's priorities for providing new public access to major shorelines in the unincorporated area.

King County Shoreline Cumulative Impacts Assessment (September 2010): The Shoreline Cumulative Impacts Assessment provides a mechanism for examining the potential success of county policies and regulations in meeting the goal of no net loss of shoreline ecological processes and functions.

King County Shoreline Inventory and Characterization (May 2007): The Shoreline Inventory and Characterization includes the data and analytic methods used to develop King County's shoreline inventory and shoreline characterization (including evaluation of existing physical and shoreline ecological processes and functions, public access and recreation, land use and economic development, public facilities and utilities, and archaeological and historic resources). In addition, the Shoreline Inventory and Characterization includes methodologies for cumulative impact analysis associated with shoreline management and comprehensive shoreline restoration planning. Specific data can be found at: http://www.kingcounty.gov/shorelines.

King County Shoreline Map Folio (September 2010): The Shoreline Map Folio includes all maps produced and referenced as part of the SMP update, with the exception of those maps included in this chapter. All geographic information can be found at: http://www.kingcounty.gov/shorelines/shorelines-plan-update.aspx

The terms “Shoreline Master Program,” “SMP,” “Shoreline Program” and “Program” are all used throughout this chapter to describe King County’s shoreline policies (this chapter) and shoreline management regulations in their entirety.

2. Shoreline policies

The SMP contains specific policies relating to a wide variety of shoreline uses and issues.

Shoreline policies establish broad shoreline management directives. They are statements of intent by King County that direct or authorize a course of action or specify criteria for regulatory or non-regulatory action. The policies serve as the basis for regulations that govern use and development along the shoreline.

King County’s shoreline policies must:

1. Be consistent with the SMA;
2. Address the master program elements of RCW 90.58.100;
3. Include policies for environmental designations as described in WAC 173-26-211;
4. Be designed and implemented in a manner consistent with all relevant constitutional and other legal limitations on regulation of private property; and
5. Be consistent with the King County Comprehensive Plan and functional plans adopted as components of the Comprehensive Plan.

Shoreline policies provide a comprehensive foundation for the SMP regulations, which are more specific standards that are used to evaluate shoreline development proposals. King County must evaluate permit applications in light of the shoreline policies and may approve a permit only after determining that the development conforms to the policies in the Shoreline Master Plan.

In addition, shoreline policies assist in prioritizing King County’s spending on facilities and services within shorelines of the state. Finally, the shoreline policies provide direction for regional issues such as resource management, environmental protection, transportation, inter-governmental coordination and regional planning.

3. Shoreline Environments

The SMA requires that shoreline management programs classify shoreline areas into specific environment designations. Ecology's guidelines recommend six different environment designations, but does not require that local programs adopt this particular scheme. King County's 1978 SMP adopted the four environment designations recommended by Ecology at that time: Urban, Rural, Conservancy, and

Natural. In this update, King County is adopting eight environment designations in total, based on the recommendations from Ecology. These environment designations are:

High Intensity Shoreline Environment: Applied to areas that provide high-intensity water-oriented commercial, transportation, and industrial uses.

Residential Shoreline Environment: Applied to accommodate residential uses at urban densities, while allowing for non-residential uses that are consistent with the protection of the shoreline jurisdiction.

Rural Shoreline Environment: Applied to accommodate rural residential shoreline development, while allowing for rural non-residential uses that are consistent with the protection of the shoreline.

Conservancy Shoreline Environment: Applied to protect and conserve the shoreline for ecological, public safety, and recreation, purposes. Includes areas with important shoreline ecological processes and functions, valuable historic and cultural features, flood and geological hazards and recreational opportunities. Residential areas can also be designated as conservancy shorelines.

Resource Shoreline Environment: Applied to allow for mining and agriculture land uses, except for shorelines that are relatively intact or that have minimally degraded shoreline processes and functions.

Forestry Shoreline Environment: Applied in areas to allow for forest production and protect municipal water supplies.

Natural Shoreline Environment: Applied to shorelines that are relatively intact or have minimally degraded shoreline processes and functions that are intolerant of human use.

Aquatic Shoreline Environment: Applied to the areas waterward of the ordinary high water mark.

4. Shoreline program elements

The SMA identifies eight “program elements” that must be addressed and included in local shoreline master programs:

Economic development element that considers the location and design of industries, industrial projects of statewide significance, transportation facilities, port facilities, tourist facilities, commerce, and other developments that are particularly dependent on shorelines of the state.

Public access element that considers public access to publicly owned land along shorelines of the state.

Recreational element that identifies recreational opportunities along shorelines, such as parks, tidelands, beaches, and recreational areas, and that pursues acquisition through implementation of the King County SMP.

Circulation element that consists of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other public utilities and facilities.

Land use element that considers the general distribution and location, as well as the extent of use on the shorelines and adjacent areas for housing, business, industry, transportation, agriculture, natural resources, recreation, education, public buildings and grounds, and other categories of public and private use of the land.

Conservation element that addresses the preservation of natural resources including, but not limited to, scenic vistas, aesthetics, and vital estuarine areas for fish and wildlife.

Historic, cultural, scientific and educational element that prevents the destruction of or damage to any site having historic, cultural, scientific, or educational value as identified by the appropriate authorities, including affected Tribes, and the state office of archaeology and historic preservation.

Flood hazard element that considers the prevention and minimization of flood damages.

5. Shoreline modifications and uses

The SMA requires that local shoreline master programs distinguish between shoreline modifications and shoreline uses.

Shoreline modifications are generally related to construction of a physical element such as a dike, breakwater, dredged basin, or fill, but can include other actions such as clearing, grading or application of chemicals. A shoreline modification is usually undertaken in support of or in preparation for a shoreline use.

Shoreline uses are classified as "water-dependent," "water-related," "water-enjoyment," or "water-oriented."

A water-dependent use is a use or portion of a use that cannot exist in a location that is not adjacent to the water and that is dependent on the water by reason of the intrinsic nature of its operations.

A water-related use is a use or portion of a use that is not intrinsically dependent on a waterfront location but whose economic viability is dependent upon a waterfront location because:

(a) The use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or

(b) The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive or more convenient.

A water-enjoyment use is a recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides for recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which, through location, design and operation, ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

A water-oriented use is a use that is water-dependent, water-related, water-enjoyment, or a combination of such uses.

II. Shoreline Jurisdiction

A. King County's Responsibility to Regulate Shorelines

1. King County assumes primary responsibility for shoreline planning and regulation

King County has primary responsibility for shoreline management planning and for the administration of shoreline regulations within its jurisdiction.

S-101 **King County has primary responsibility within its boundaries for planning required by the Shoreline Management Act and for administering its shoreline regulatory program.**

King County recognizes that its SMP is subject to review and approval by the Washington State Department of Ecology and that the SMP must be consistent with the policies and provisions of the SMA (RCW 90.58).

2. King County's Shoreline Master Program is intended to be consistent with the Shoreline Management Act & Guidelines

King County's SMP is intended to be consistent with the required elements of Ecology's guidelines for implementing the SMA that are found in WAC 173-26 and 173-28. King County's SMP shall be interpreted consistently with the SMA. In the event of a conflict between SMA and King County's SMP, the SMP should be interpreted to give meaning and effect to the SMA.

S-102 **King County's Shoreline Master Program is to be interpreted consistently with the policies and requirements of the Shoreline Management Act (RCW 90.58).**

S-103 **King County's Shoreline Master Program is to be interpreted consistently with the required elements of the shoreline guidelines found in WAC 173-26 and 173-28.**

3. King County's Shoreline Master Program is to be liberally construed

The SMA explicitly provides that it is exempt from the rule of strict construction and must be liberally construed to give full effect to the Act's objectives and purposes. By adopting a liberal standard of construction, the state Legislature demonstrated the importance it attached to protecting the shoreline

and accomplishing the goals and policies of the SMA. Consistent with this mandate, and because King County believes that accomplishing the goals and objectives of the SMA within the county is of primary importance, the SMP is to be liberally construed to accomplish its objectives and purpose.

S-104 **King County's Shoreline Master Program is exempted from the rules of strict construction and shall be construed liberally to give full effect to its objectives and purpose.**

B. Shoreline Jurisdiction

1. Shoreline jurisdiction extends over all "shorelines" and "shorelines of statewide significance" within unincorporated King County

The SMA applies to all "shorelines of the state." "Shorelines of the state" are defined to include "shorelines" and "shorelines of statewide significance."

It is important to understand the distinction between the terms "shorelines" and "shorelines of statewide significance." Both terms are used throughout the SMA and define the scope of King County's shoreline jurisdiction. The distinction is important because the SMA imposes greater and more specific obligations when dealing with shorelines of statewide significance.

a. "Shorelines"

Shorelines are defined in the SMA as follows:

> "Shorelines" means all of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes.

b. "Shorelines of statewide significance"

Shorelines of statewide significance, as specifically defined in the SMA include:

- Those areas of Puget Sound between the ordinary high water mark and the line of extreme low tides;
- Lakes, whether natural, artificial or a combination thereof, with a surface acreage of 1,000 acres or more measured at the ordinary high water mark; and
- Natural rivers or segments thereof downstream of a point where the mean annual flow is measured at 1,000 cubic feet per second or more.

In unincorporated King County, the water bodies that qualify as shorelines of statewide significance include:

- The marine waters around Vashon-Maury Island
- Northeast Lake Washington (north of Kirkland) and southwest Lake Washington (west of Renton)
- Lake Sammamish at Marymoor State Park and Lake Sammamish State Park
- Mud Mountain Reservoir and White River from river mile 15.5 to river mile 46 (excluding the Muckleshoot Indian Reservation between river mile 8.9 and river mile 15.5)
- Green River from its confluence with the Duwamish River to river mile 95
- Duwamish River from river mile 3.5 to river mile 5
- Chester Morse Lake (Reservoir)
- Tolt Reservoir
- Mainstem Snoqualmie River to river mile 43 and Middle Fork Snoqualmie River to river mile 39
- South Fork Skykomish River to river mile 30

Associated shorelands that are adjacent to shorelines of statewide significance are included within the shoreline of statewide significance jurisdiction.

c. "Shorelands"

Shorelines includes "associated shorelands" which are defined in the SMA as follows:

> "Shorelands" or "shoreland areas" means those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter.

d. Shoreline jurisdiction

King County's shoreline jurisdiction consists of the combination of shorelines, shorelines of statewide significance, and shorelands.

S-105 **King County's shoreline jurisdiction extends over all shorelines of the state, as that term is defined in the Shoreline Management Act, in unincorporated King County. This includes jurisdiction over shorelines, shorelines of statewide significance and shorelands.**

e. Options to extend geographic jurisdiction over shorelines and shorelines of statewide significance

The SMA gives King County two options concerning the scope of its shoreline jurisdiction.

The first option allows the county to include one-hundred year floodplains:

> Any county or city may determine that portion of a one-hundred-year-floodplain to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom.

(RCW 90.58.030(2)(f)(i))

In its original SMP adopted in 1977, King County included the one-hundred year floodplain. The continued regulation of the one-hundred year floodplain is necessary to comply with certain federal requirements under the National Flood Insurance Program. Therefore, King County continues to extend its shoreline jurisdiction to cover one-hundred year floodplains.

S-106 **King County includes within its shoreline jurisdiction the one-hundred year floodplains of shorelines of the state.**

The second option allows the extension of shoreline jurisdiction to include land necessary for buffers for critical areas that extend beyond the 200 foot shoreland jurisdiction:

> Any city or county may also include in its master program land necessary for buffers for critical areas, as defined in chapter 36.70A RCW, that occur within shorelines of the state, provided that forest practices regulated under chapter 76.09 RCW, except conversions to non-forest land use, on lands subject to the provisions of this subsection (2)(f)(ii) are not subject to additional regulations under this chapter.

(RCW 90.58.030(2)(f)(ii))

King County is not exercising its option to extend its shoreline jurisdiction to include lands for buffers for critical areas.

S-107 **Where critical areas are located within the unincorporated King County shorelands, the shoreline jurisdiction shall not include the critical area buffers that extend outside of the shoreline jurisdiction boundary.**

2. Jurisdictional map

Applying these definitions within King County has involved an extensive survey of the shoreline jurisdiction, which is discussed in detail in the King County Shorelines Inventory and Characterization (May 2007). The Shorelines of the State map at the end of this chapter shows the complete scope of King County's shorelines and shorelines of statewide significance.

III. Shoreline Policy Goals

A. Introduction to Shoreline goals

King County's shoreline has a long history of settlement because of the abundant natural resources, availability of water, and usefulness as transportation routes. The shoreline also draws people to enjoy the aesthetic and recreational value that marine beaches, lakes, and rivers provide. The shoreline supports some of the region's most important industries, such as shipping, fishing, and tourism.

Because of the unique and irreplaceable value of the shorelines of the state, King County recognizes that it is in the public interest to protect shoreline ecological processes and functions, while allowing reasonable and necessary use of shorelines to support the regional economy and provide recreational opportunities for the public.

The high demand for shoreline use over time has degraded shoreline ecological processes and functions in many areas. Many segments of King County's shoreline jurisdiction are devoid of native vegetation, the banks are hardened with additions of rock and other materials, sediment movement is no longer driven by natural forces, and valuable fish and wildlife habitat is gone or impaired to a significant extent. Unaltered shorelines are increasingly rare. It has become critical to restore and enhance degraded shorelines.

A vast majority of the shoreline jurisdiction, particularly in the lower parts of the regional watersheds and along the marine shorelines, is in private ownership, giving the citizens of King County an important role in protecting unique and irreplaceable shoreline values. The challenge for King County is to manage these lands in a manner that protects, restores, and enhances King County's shoreline jurisdiction, while respecting private property rights and protecting the public interest.

King County has established a set of general policy goals that provide overarching guidance for discretionary decision-making, support shoreline regulations, and define the vision that King County has for the use, protection, restoration and enhancement of the shorelines of the state. These policy goals reflect the wide range of SMA mandates, while at the same time preserving the maximum possible flexibility for King County to address the unique shoreline conditions within its jurisdiction.

B. Statement of Applicability

The SMA includes a requirement that development proposals must obtain a shoreline substantial development permit. However, the SMA includes a number of exemptions from this requirement. For

example, proposals to construct a single family residence or to construct a bulkhead to protect a single family residence are exempt from the requirement to obtain a substantial development permit. Activities that do not require a shoreline substantial development permit can, individually and cumulatively, adversely impact adjacent properties and natural resources. King County has both the authority and the responsibility to enforce SMP regulations on all uses and development in the shoreline jurisdiction. In order to ensure that permit-exempt activities comply with the SMA and the County's SMP, King County generally requires applicants with exempt projects to apply for a shoreline exemption.

Because there has been confusion in the past regarding the scope of the SMA, Ecology requires that all master programs contain the following policy statement:

S-201 **All proposed uses and development occurring within King County's shoreline jurisdiction must conform to the Shoreline Management Act and to King County's Shoreline Master Program.**

C. Shoreline Preferred Uses

The SMA establishes mandatory preferences for uses that are unique to or dependent upon a shoreline location. These preferred uses apply to the entire shoreline jurisdiction, both the shorelines and shorelines of statewide significance. The SMA preferred uses are recognized in the following policies.

S-202 **In establishing and implementing shoreline policies and development regulations, King County shall give preference to uses that are unique to or dependent upon a shoreline location.**

S-203 **King County, when determining allowable uses and resolving use conflicts in the shoreline jurisdiction, shall apply the following preferences and priorities in the order listed below:**

a. **Reserve appropriate areas for protecting and restoring shoreline ecological processes and functions to control pollution and prevent damage to the natural environment and to public health.**

b. **Reserve shoreline areas for water-dependent and associated water-related uses. Harbor areas, established pursuant to Article XV of the State Constitution, and other areas that have reasonable commercial navigational accessibility and necessary support facilities, such as transportation and utilities, should be reserved for water-dependent and water-related uses that are associated with commercial navigation,**

unless adequate shoreline is reserved for future water-dependent and water-related uses and unless protection of the existing natural resource values of such areas preclude such uses. Shoreline mixed-use developments may be allowed if they include and support water-dependent uses and address specific conditions that affect water-dependent uses.

c. Reserve shoreline areas for other water-related and water-enjoyment uses that are compatible with ecological protection and restoration objectives.

d. Locate single-family residential uses where they are appropriate and can be developed without significant impact to shoreline ecological processes and functions or displacement of water-dependent uses.

e. Limit nonwater-oriented uses to those locations that are inappropriate for higher priority uses or where the nonwater-oriented uses demonstrably contribute to the objectives of the Shoreline Management Act.

S-204 **In particular circumstances, the preferred use policies, the local economic and land use conditions, and the policies and regulations that assure protection of shoreline resources may result in a determination that other uses may be considered as necessary or appropriate. These other uses may be accommodated, provided that the preferred uses are reasonably provided for throughout the shoreline jurisdiction.**

D. General Policy Goals

The SMA policies of protecting shoreline ecological processes and functions, fostering reasonable use, and maintaining the public right of navigation and corollary uses result in certain mandatory policy goals for the shoreline jurisdiction.

These policies apply to both shorelines and shorelines of statewide significance. The policies are not ranked in a specific order. King County reserves the right to balance these general policies based on the unique circumstances, location and physical condition of the shoreline.

S-205 **The following policy goals apply to all of the shoreline jurisdiction. The goals are not ranked in importance and have been assigned a number for identification purposes only.**

1. **The use of the shoreline jurisdiction for those economically productive uses that are particularly dependent on shoreline location or use.**
2. **The use of the shoreline jurisdiction for public access and recreation.**
3. **Protection and restoration of the ecological processes and functions of shoreline natural resources.**
4. **Protection of the public right of navigation and corollary uses of waters of the state.**
5. **The protection and restoration of buildings and sites having historic, cultural, and educational value.**
6. **Planning for public facilities and utilities correlated with other shorelines uses.**
7. **Prevention and minimization of flood damage.**
8. **Recognizing and protecting private property rights.**
9. **Preferential accommodation of single-family residential uses.**
10. **Coordination of shoreline management with other relevant local, state and federal programs.**

E. Shorelines of Statewide Significance Policy Goals

The Shoreline Management Act identifies certain shorelines as "shorelines of statewide significance" and raises their status by setting use priorities and by calling for a higher level of effort in implementing the SMP. The state legislature has declared that the interest of all people shall be paramount in the management of shorelines of statewide significance.

S-206 **The interests of all people shall be paramount in the management of shorelines of statewide significance within King County.**

The legislature has established policy goals that govern shorelines of statewide significance. Significantly, these policy goals are ranked in order of preference, i.e., the first goal must be given priority over all subsequent goals.

The following policy recognizes and accepts the policy goals as directed by the SMA for shorelines of statewide significance:

S-207 **In developing and implementing its Shoreline Master Program for shorelines of statewide significance, King County shall give preference, in the following order of preference, to uses that:**

a. **Recognize and protect the statewide interest over local interest;**

b. Preserve the natural character of the shoreline;

c. Result in long-term over short-term benefit;

d. Protect the resources and ecology of the shoreline;

e. Increase public access to publicly owned areas of the shorelines;

f. Increase recreational opportunities for the public in the shoreline; and

g. Provide for any other element as defined in RCW 90.58.100.

S-208 **In developing and implementing policies relating to shorelines of statewide significance, King County shall provide for optimum implementation of policies that satisfy the statewide interest.**

F. State-Owned Shoreline Policy Goals

The state also owns property within King County. The SMA requires that certain policies be adopted with regard to shoreline land owned by the state. This is distinct from shorelines of statewide significance, which may or may not be in state ownership. Because state-owned shoreline is often adapted to providing recreational activities for the public, King County has given special consideration to these factors in developing the SMP.

S-209 **King County should encourage and help facilitate the use of state-owned shorelines for public recreational activities, where appropriate.**

G. Balancing Policy Goals

The policy goals for the management of the shoreline jurisdiction have the potential for conflict. King County shorelines are considered among the most valuable and fragile of King County's natural resources. These shorelines are valuable for economically productive industrial and commercial uses, recreation, navigation, residential amenity, scientific research, and education. They are fragile because shorelines depend upon a balance between physical, biological, and chemical systems that may be significantly altered by both natural forces (earthquakes, volcanic eruptions, landslides, storms, droughts, floods) and human activities (industrial, commercial, residential, recreation, navigational). Unbridled use of the shorelines ultimately could destroy their utility and value for human use.

S-210 **The policy goals of King County's Shoreline Master Program relate both to the use and protection of the extremely valuable and vulnerable shoreline resources of the state.**

S-211 **King County shall accommodate in the shoreline jurisdiction all reasonable and appropriate uses consistent with protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and consistent with public rights of navigation.**

S-212 **The policy of achieving both shoreline use and protection is reflected in the provision that permitted uses in the shoreline jurisdiction shall be designed and conducted in a manner to avoid or minimize, in so far as practical, any resultant damage to the ecology and environment of the shoreline area and the public's use of the water.**

S-213 **King County shall balance shoreline use and shoreline protection when meeting the policy goals of the Shoreline Management Act.**

H. Multiple Approaches to Accomplishing Policy Goals

The policy goals in the SMP may be achieved through a variety of methods that go beyond simply regulating development within the shoreline jurisdiction. There are a wide range of non-regulatory tools available that provide incentives for property owners to work cooperatively with King County to achieve these policy goals. In addition, King County works closely with other public and non-profit groups to achieve mutually beneficial objectives.

S-214 **The King County Shoreline Master Program policies may be achieved by a number of different means, both regulatory and non-regulatory. These include, but are not limited to:**

- **a. Regulations controlling development within the shoreline jurisdiction;**
- **b. Acquisition of land and easements by purchase, lease, or gift, either alone or in concert with other local governments;**
- **c. Accepting grants, contributions, and appropriations from any public or private agency or individuals;**
- **d. Public facility and park planning;**
- **e. Watershed planning;**
- **f. Voluntary salmon recovery projects; and**
- **g. Incentive programs, such as the transfer of development rights or the public benefit rating system.**

IV. Shoreline Element Policy Goals

A. Need for shoreline elements

The SMA requires local master programs to include a number of elements that range from use of shorelines for economic benefit and accommodating necessary infrastructure to protecting both cultural and natural resources. These elements are addressed separately throughout this chapter and are based on the following overarching King County Shoreline Master Program element policy goals.

B. Economic Development Element

King County's economy is the largest and most significant in the Puget Sound Region and in Washington State. With almost half of the state's nonagricultural jobs and almost 83,900 businesses, it is essential that the King County accommodate the industries and infrastructure to support a healthy and vibrant economy. Most of the county's industry and infrastructure lies within the incorporated cities and is not subject to the King County Shoreline Master Program. However, there are some portions of the shoreline jurisdiction in unincorporated King County that provide for economic development of the region.

S-301 **King County should plan for the location and design of industries, transportation facilities, port facilities, tourist facilities, commerce and other developments that are particularly dependent on their location on or use of the shorelines of the state.**

C. Public Access Element

King County believes the shoreline should be accessible to the general public to enjoy and use within the limitations of private property rights and ecological considerations. Since a significant amount of shoreline property is in private ownership, the responsibility to maintain and provide public access falls primarily on public projects. Not all sites are appropriate for use by the public and must be evaluated carefully to ensure that public access can be safely provided without harm. Provisions should also be retained and sought to provide opportunities for the public to enjoy views of the water and shoreline.

S-302 **King County shall:**

a. Support the public interest with regard to rights to access waters held in public trust by the state, while protecting private property rights and public safety, as well as considering impacts on shoreline ecological processes and functions.

b. Protect the rights of navigation and the space necessary for water-dependent uses.

c. To the greatest extent feasible consistent with the overall best interest of the state and the people generally, protect the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state, including views of the water.

e. Regulate the design, construction, and operation of permitted uses in the shorelines of the state to minimize, insofar as practical, interference with the public's use of the water.

When planning shoreline public access, King County should try to achieve an integrated system that can supplement, and be coordinated with, multimodal transportation planning. King County has identified areas of potential public access that will be assessed in more detail through shoreline permits and public projects. The King County Shoreline Public Access Plan (July 2009) provides details on the analysis of existing shoreline public access in King County, identified public access gaps and opportunities, and the resulting shoreline Public Access Plan.

S-303 **The King County Shoreline Master Program should increase the amount and diversity of public access to the shoreline jurisdiction in areas identified within a shoreline public access gap. New public access should minimize impacts to shoreline ecological processes and functions, preserve natural shoreline character as much as possible, protect private property rights and consider public safety.**

S-304 **Public agencies, including local governments, port districts, state agencies, and public utility districts, should include public access in their development proposals if public access is compatible with the activity and can be provided safely. An assessment of the impact of public access on the shoreline and constructed features should also be conducted.**

S-305 **King County shall require public access to shorelines of the state for water-enjoyment, water-related, and nonwater-dependent non-residential uses and for subdivisions of land into more than four parcels unless:**

a. The development proposal is not compatible with public access;

b. There is a safety or security concern;

c. Inclusion of public access will have an environmental impact that cannot be mitigated; or

d. There are legal limitations on allowing public access.

S-306 **King County shall adopt development regulations that establish maximum building height limits, setbacks, and view corridors to minimize the impact to existing views from public property or a substantial number of residences. Where providing direct public access or allowing for water dependent shoreline uses conflicts with maintaining existing views, the direct public access or water dependent shoreline uses shall have priority.**

D. Recreational Element

Shorelines provide many opportunities for recreation, such as boating, swimming, beach combing, hiking, and nature viewing. Since much of the shoreline jurisdiction is in private ownership, using public lands for recreation will become increasingly important. Opportunities should be sought through public projects to protect and enhance recreational opportunities.

S-307 **King County should protect and, when possible, expand recreational opportunities, including but not limited to parks, beaches, tidelands, swimming beaches and boat launches.**

S-308 **King County should evaluate opportunities to acquire shoreline property for purposes of public recreation from willing sellers of private property.**

E. Circulation Element

Circulation and transportation planning is conducted at many levels in King County. The overarching transportation planning agency in the Puget Sound region is the Puget Sound Regional Council, an association of cities, towns, counties, ports, and state agencies that serves as a forum for developing policies and making decisions about growth and transportation issues in the Puget Sound region. At the local level, cities and counties approve local circulation patterns for their individual jurisdictions. King County should consider the policy goals in this Shoreline Master Program when participating in regional and local transportation planning discussions.

S-309 **The King County Shoreline Master Program should guide the county's transportation plans and projects within the shoreline jurisdiction.**

F. Land Use Element

Land use in King County is established through implementation of the Washington State Growth Management Act (GMA). To implement the GMA, King County relies primarily on the King County Comprehensive Plan and functional plans that are adopted as part of this Comprehensive Plan for facilities and services. This Comprehensive Plan establishes an urban growth line and designates land use and zoning for the unincorporated portions of King County. It also delineates and protects agricultural production districts, forest production districts and mineral resource sites.

S-310 **The King County Comprehensive Plan should consider the policy goals of the King County Shoreline Master Program when designating land use and zoning on shorelines of the state and adjacent lands.**

G. Conservation Element

The SMA requires local master programs to include a conservation element for the preservation of natural resources, including critical areas, scenic vistas, aesthetics, and vital freshwater, saltwater and estuarine areas for fish and wildlife.

1. Critical areas

King County's critical areas ordinance is based on best available science and protects coal mine hazard areas; erosion hazard areas; flood hazard areas; seismic hazard areas; landslide hazard areas; volcanic hazard areas; steep slope hazard areas; critical aquifer recharge areas; wetlands; aquatic areas (including lakes, rivers and streams and marine areas); and wildlife habitat conservation areas. The GMA requires that a shoreline master program provide a level of protection for critical areas located within shorelines that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources. Policy S-403 adopts this requirement.

Past development of the shorelines has degraded the habitat for many species by activities such as armoring banks against wave action and the erosive force of water flowing downstream; removal of vegetation; straightening channels; installing in-stream structures for flood control, hydroelectricity and water supply; and allowing stormwater runoff that degrades water quality. Degraded shorelines should be restored and shorelines that are in good condition should be preserved.

S-311 **King County shall protect shoreline critical areas and, where possible, should restore degraded habitat and critical area functions and values.**

2. Scenic vistas

The natural topography of King County provides numerous scenic vistas of the shoreline. King County should ensure that development occurring both within and outside the shorelines of the state avoids impacts on scenic vistas and protects view corridors while balancing other policy goals of this plan.

S-312 **King County should consider and, when possible, require protection of scenic vistas of the shoreline jurisdiction when reviewing public and private development proposals.**

3. Aesthetics

Natural shorelines are visually aesthetic in their natural state. When these shorelines are altered through development, the aesthetic value of the shoreline should be preserved as much as possible. In areas where shorelines have already been developed with little consideration of the aesthetics, restoration should return the shoreline to an aesthetically-pleasing environment.

S-313 **King County should ensure that public and private development proposals protect and restore the aesthetic quality of shorelines in the project design.**

H. Historic, Cultural, Scientific and Educational Element

The historic, cultural, scientific and educational element provides for protection and restoration of historic resources. Historic resources include historic building, sites, objects, districts and landscapes, prehistoric and historic archaeological resources and traditional cultural places.

S-314 **Historic resources in the shoreline jurisdiction should be protected to prevent the destruction of, or damage to, any site having archaeological, historic, cultural, or scientific value through coordination and consultation with the appropriate local, state and federal authorities, including affected Tribes.**

a. **Sites should be protected in collaboration with appropriate Tribal, state, federal, and other local governments. Cooperation among public and private parties is to be encouraged in the identification, protection, and management of cultural resources.**

b. **Where appropriate, access to such sites should be made available to parties of interest. Access to such sites must be designed and managed in a manner that gives maximum protection to the resource.**

c. Opportunities for education related to archaeological, historical and cultural features should be provided where appropriate and incorporated into public and private programs and development.

S-315 **King County should work with Tribal, state, federal and local governments to maintain an inventory of all known historic resources. King County shall protect these inventories from public disclosure to the extent permitted or required under applicable federal and state law. As appropriate, such sites should be preserved and restored for study, education and public enjoyment to the maximum possible extent.**

S-316 **Provisions for historic resource preservation, restoration and education should be incorporated with open space or recreation areas in site development plans whenever compatible and possible.**

S-317 **Cooperation among involved private and public parties should be encouraged to achieve these historic, cultural, scientific and educational objectives.**

S-318 **Private and public owners of historic resources should be encouraged to provide public access and educational opportunities at levels consistent with long term protection of both historic values and shoreline ecological processes and functions. Site-specific conditions may require public site access to be restricted at times, but educational means should be provided whenever possible.**

S-319 **Historic resource development should be planned and carried out so as to prevent impacts to the resource. Impacts to neighboring properties and other shoreline uses should be limited to temporary or reasonable levels.**

S-320 **Owners of historic resource are encouraged to make substantial development plans known well in advance of application so that appropriate agencies, such as the Washington State Department of Archaeology and Historic Preservation, Tribes and others, may have ample time to assess the site and make arrangements to preserve historic, cultural, scientific and educational values as applicable.**

S-321 **If development is proposed adjacent to an historic resource, the proposed development should be designed and operated so as to be compatible with continued protection of the historic, cultural or archaeological resource.**

V. Shoreline Plan Relationship to Other Laws

A. Washington's Growth Management Act (Chapter 36.70A RCW)

The GMA, passed by the Washington State Legislature in 1990 and 1991, seeks to further protect the quality of life in Washington State. The GMA requires that the state's most populous and fastest growing counties and their cities prepare comprehensive land use plans that anticipate growth for a 20-year horizon. Smaller communities and those communities that are experiencing a slow rate of growth may choose to plan under the GMA, but are not required to do so. Comprehensive plans adopted in accordance with GMA must manage growth so that development is directed to designated urban areas and away from the Rural Area. The GMA also requires local governments to designate and protect critical areas and to identify and protect natural resource lands, which include commercially significant forestry, agriculture, and mining areas. In 1997, the Washington State Legislature amended both the GMA and the SMA in an effort to achieve consistency between the two statutes. Among the amendments to the GMA was a provision that makes the policies and goals of the SMA also policies and goals of the GMA. See RCW 36.70A.480.

S-401 **The King County Shoreline Master Program must be consistent with the Washington State Growth Management Act.**

B. King County Countywide Planning Policies

King County, along with the City of Seattle, City of Bellevue, and suburban cities established the Growth Management Planning Council (GMPC) to prepare a coordinated policy framework for future development in King County. In July 1992, the GMPC adopted Phase 1 of the Countywide Planning Policies. Phase 2 was adopted in 1994. The King County Countywide Planning Policies have been ratified by a majority of the jurisdictions in King County and therefore apply to all jurisdictions. The Countywide Planning Policies address critical areas, land use patterns, transportation, community character and open space, affordable housing, development and provision of urban services, siting of public capital facilities, economic development, and regional financing and governance.

S-402 **The King County Shoreline Master Program must be consistent with and coordinated with the King County Countywide Planning Policies.**

C. Critical Areas Regulations

Critical areas located within shorelines are regulated under the SMA and implemented through local shoreline master programs. The GMA requires that shoreline master programs provide a level of protection for shoreline critical areas that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources.

S-403 **The King County Shoreline Master Program and implementing regulations shall provide a level of protection for critical areas in the shoreline jurisdiction that assures no net loss of shoreline ecological functions necessary to sustain shoreline natural resources.**

The SMA provides options for assuring consistency with the GMA protection of critical areas. These options range from including the GMA critical areas regulations in the SMP to preparing a discrete set of shoreline regulations.

S-404 **The King County Shoreline Master Program includes by reference portions of the King County critical areas regulations into the Shoreline Master Program to meet the requirements of RCW 90.58.090(3) and 90.58.090(4).**

D. Zoning, Clearing and Grading, and Stormwater Regulations

King County has adopted a wide array of development regulations that protect various aspects of the environment and implement other King County policies. These regulations generally include King County's surface water management regulations, clearing and grading regulations, and zoning. In the shoreline jurisdiction, the Shoreline Master Program may impose additional requirements. Shoreline development regulations must:

1. Be sufficient in scope and detail to ensure implementation of the SMA statewide shoreline management policies, this chapter, and the King County Comprehensive Plan and functional plans adopted to implement the Comprehensive Plan;
2. Include regulations that apply to the environmental designations classified under WAC 173-26-211;
3. Include general regulations, specific use regulations that address issues of concern in regard to specific uses, and modification regulations;
4. Include clearing and grading and stormwater regulations that protect the ecological processes and functions of the shorelines; and

5. Design and implement regulations and mitigation standards in a manner consistent with all relevant constitutional and other legal limitations on the regulation of private property. (RCW 90.58.100)

However, to the extent that it can, consistent with requirements of the SMA, King County will rely on its existing regulations to meet the requirements of the SMA.

S-405 **To the maximum extent practical, King County's Shoreline Master Program shall rely on King County's existing regulations, including critical areas regulations, surface water management regulations, clearing and grading regulations, and zoning in order to comply with the Shoreline Management Act and the Ecology's guidelines.**

E. Flood Hazard Management Plan

The King County Flood Hazard Management Plan directs floodplain management within King County. This plan was developed in coordination with incorporated cities within King County as directed by RCW 86.12.210 and is binding on each jurisdiction located within King County. The goals of the King County Flood Hazard Management Plan are:

1. To reduce the risks from flood and channel migration hazards.
2. To avoid or minimize the environmental impacts of flood hazard management.
3. To reduce the long-term costs of flood hazard management.

Flood hazard regulations are implemented within unincorporated King County. Each jurisdiction within King County is required under the Flood Hazard Management Plan to adopt flood hazard management regulations that meet the minimum requirements of the National Flood Insurance Program.

In 2007, the King County Council approved the formation of a countywide flood control zone district under the authority in RCW 86.15.025. The overarching countywide strategies and objectives include:

1. Improving levee protection through major commercial, industrial and residential areas;
2. Improving flood water conveyance and capacity;
3. Reducing hazards by removing flood, erosion, and landslide prone residential structures;
4. Providing safe access to homes and businesses by protecting key transportation routes;
5. Minimizing creation of new risks to public safety from development pressure.

The King County Flood Control Zone District (FCZD) is governed by a District Board of Supervisors that consists of the members of the King County Council. An advisory committee advises the board of supervisors of the FCZD on regional flood protection issues by providing recommendations to the board

of supervisors on the district's work program and budget, including capital improvement program projects. King County will rely on the Flood Hazard Management Plan and the FCZD to meet the general shoreline master program provisions for flood hazard reduction in WAC 173-26-221(3).

S-406 **The King County Shoreline Master Program will rely on the policies and programs established in the King County Flood Hazard Management Plan and flood hazard regulations to meet the requirements of the Shoreline Management Act and the Department of Ecology's guidelines for flood hazard reduction.**

VI. Shoreline Environment Designations

A. Introduction to shoreline environment designations

Shoreline management addresses a wide range of physical conditions and development settings. The SMP classifies shoreline reaches into defined environment designations, based on the existing use pattern, the current biological and physical character of the shoreline, and the goals and aspirations of the community. King County prescribes environmental protection measures, allowable use provisions, and development standards for each shoreline environment designation.

King County has established eight shoreline environment designations:

A. High Intensity Shoreline
B. Residential Shoreline
C. Rural Shoreline
D. Conservancy Shoreline
E. Resource Shoreline
F. Forestry Shoreline
G. Natural Shoreline
H. Aquatic

This section sets forth the purpose, criteria and management policies for each shoreline environment. The Shoreline Environment Designation maps at the end of this chapter show how the environment designations apply to shoreline reaches within the shoreline jurisdiction in unincorporated King County. Shoreline areas that meet the jurisdictional criteria, but that are not mapped or designated, are assigned a Conservancy designation until the SMP is amended to assign a shoreline environment to that shoreline reach.

Environment Designation Criteria

King County has a long history of comprehensive planning and basin planning. Beginning in the 1980s, basin plans were developed throughout the county and helped identify fragile aquatic resources. Relying on these plans, King County has assigned zoning that is appropriate given the nature of the resources that need protection. As a result, fragile resources generally have zoning classifications that permit only low intensity development. King County's zoning regulations limit high intensity development to urban areas designated under the County-Wide Planning Policies and the King County Comprehensive Plan.

King County recognizes, however, that zoning by itself is insufficient to determine the shoreline environment designations. Other factors are also important in assuring that the shoreline environment

designations help King County achieve the goals of the SMA. These factors include, for a given shoreline:

- Existing development patterns together with zoning, the King County Comprehensive Plan land use designations and other officially adopted plans;
- Existing shoreline ecological processes and functions and the degree of human alteration;
- Whether the reach has a restoration priority that demonstrates it has both basin conditions and existing shoreline condition that support extra efforts to maintain shoreline ecological processes and functions and the length of such reaches;
- Federal, State, County, Tribal and municipal watershed ownership status;
- The goals of King County citizens for their shorelines as set forth in this chapter;
- Pursuant to RCW 90.58.100(4), for state-owned shorelines the public demand for wilderness beaches and other recreational activities and for ecological study areas; and
- Other state policies in the SMA and the Ecology's guidelines (RCW 90.58.020 and WAC 173-26, respectively).

Figure S-1 depicts the decision making process that is used to determine the appropriate shoreline environment designation for a given shoreline.

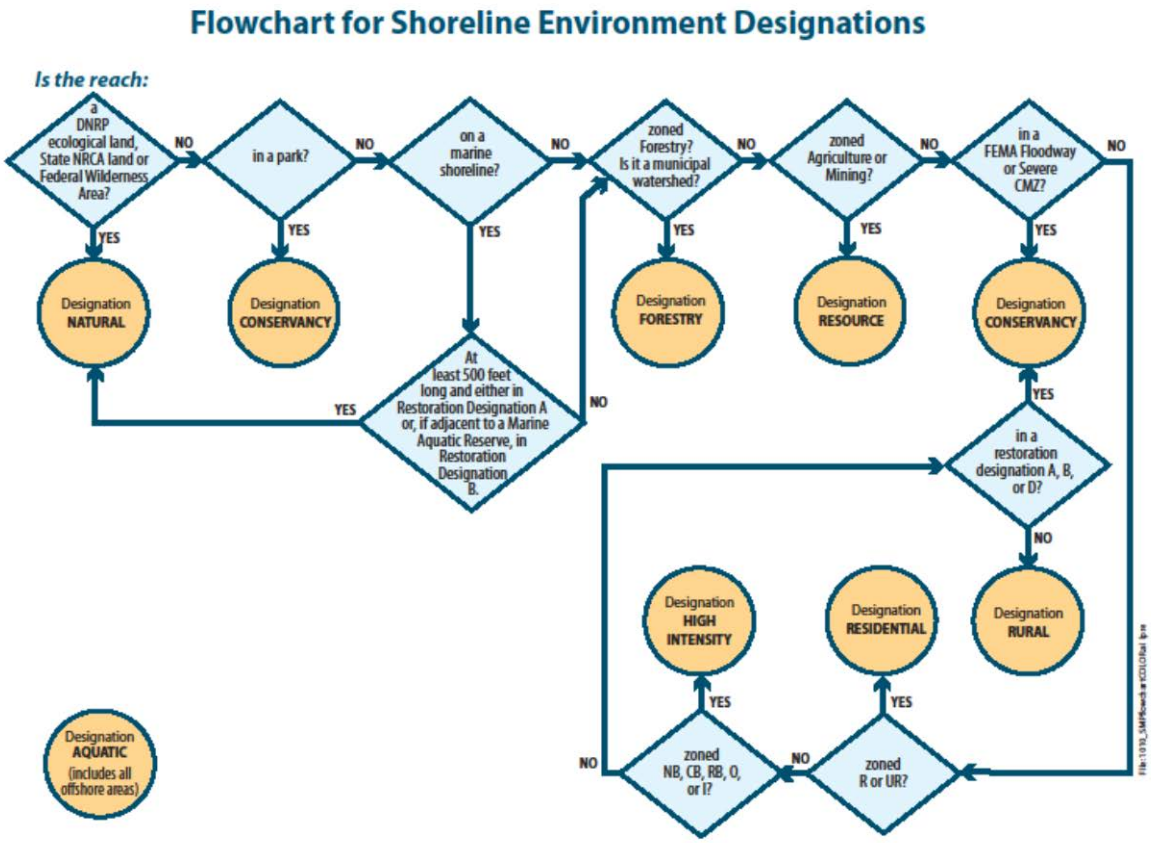

Figure S-1. Pathway of decisions in applying criteria to produce shoreline designations.

The shoreline environment designations take into account several elements. Areas currently meeting the criteria for high levels of protection are given greater levels of protection. The determination of whether an area deserves a greater level of protection is based either on its current ownership and condition, e.g. publicly owned natural areas or wilderness areas, or on its restoration rating. The restoration rating is discussed in more detail below. Zoning is also an important criterion. King County has for years implemented zoning as a means to protect more sensitive areas from intense development. Shoreline environment designations also take into account whether a reach is located within a floodway and severe channel migration hazard area and gives greater protection to these areas due to their importance in maintaining shoreline ecological processes and functions and because of public health and safety concerns.

The restoration rating (see King County Shoreline Protection and Restoration Plan (July 2009) is included in the designation as a way to incorporate more strongly the current degree of alteration along the shoreline, the biological importance of the reach in a watershed context, and the restoration priorities

associated with the combination of the two analyses. The restoration designations are largely concerned with whether it is most appropriate to implement measures to protect or conserve a site, restore it to a previous condition, or undertake projects to enhance its current condition or to create new features with shoreline ecological processes and functions. These ratings also provide guidance on areas where it is important to protect existing shoreline ecological processes and functions.

Restoration ratings combine the reach characterization based on the results from an alterations analysis with the context of basin analyses (See Table S-2). The reach or drift cell characterization is an assessment of the extent to which ecosystem structure, processes, and, ultimately, functions for a reach or drift cell are affected by anthropogenic factors. Scores resulting from this assessment are indicative of the degree to which shoreline ecological processes have been altered and impaired. The reach characterizations are found in King County Shoreline Inventory and Characterization: Methodology and Results (May 2007). The basin analysis is based on the Basin Condition Map adopted by the King County Council in K.C.C. 21A.24.065.

Restoration Score	Basin Condition	Reach Condition	Actions
A	High	High	Conserve, Preserve
B	High	Moderate	Conserve, Preserve, Restore, Enhance
C	High	Low	Restore, Enhance
D	Moderate	High	Conserve, Enhance, Restore, Preserve
E	Moderate	Moderate	Conserve, Enhance, Restore
F	Moderate	Low	Enhance, Restore
G	Low	High	Enhance, Conserve
H	Low	Moderate	Enhance, Create
I	Low	Low	Enhance, Create

Table S-2. Restoration scores and associated actions.

Each designation has specific restoration goals associated with it, based on the conditions observed onsite and in the basin. Depending on condition, as indicated by the degree of alteration, reaches and drift cells were placed into one of nine categories of preferred actions. These range from preservation and conservation under the highest conditions (high basin and reach conditions, i.e., the least altered from natural) to enhancement and creation under the poorest condition (low basin and reach conditions, the most altered from natural).

The various actions are defined as follows:

- **Preserve** – To protect intact processes, often through acquiring lands or easements to exclude activities that may negatively affect the environment.
- **Conserve** – To maintain biodiversity by protecting or increasing the natural potential of landscapes to support multiple native species. Typically, this is accomplished through financial incentives for landowners intended to offset any economic loss resulting from managing the land for conservation.
- **Restore** – To transform degraded conditions to a close approximation of historical conditions. Restoration generally involves more intense and extensive modification and manipulation of site conditions than would occur with enhancement projects. Example actions include levee breaching, removal, or setback.
- **Enhance** – To improve a targeted ecological attribute and/or process. Example actions may include culvert replacement, riparian plantings and fencing, invasive species removal, and streambank stabilization.
- **Create** – To construct or place habitat features where they did not previously exist in order to foster development of a functioning ecosystem. Examples include tidal channel excavation and the placement of dredge material intended to create marsh or other habitat. Creation represents the most experimental approach and, therefore, may have a lower degree of success, particularly when landscape-scale ecological processes are not sufficient to support the created habitat type.

The marine shoreline, which in unincorporated King County occurs only around Vashon/Maury Island, is treated a little differently than freshwater shorelines in the designation strategy. This is in recognition of both the differing character of marine shorelines, which are subject to tidal influences, wakes from large commercial vessels, and some variation in the ecological processes affecting them, as well as the creation of the Maury Island Environmental Aquatic Reserve along Maury Island and Quartermaster Harbor shorelines by the Washington state Department of Natural Resources. More protection by shoreline designation was afforded to marine shorelines with active feeder bluffs and little alteration to processes. As a result, in these areas, areas with a restoration rating of A or B were designated natural in recognition of the importance of conserving existing shoreline ecological functions and processes in this area.

B. High Intensity Shoreline Environment

Purpose

The purpose of the High Intensity Shoreline Environment is to provide for high intensity water-oriented commercial and industrial uses.

High Intensity Designation Criteria

S-501 **A shoreline may be designated High Intensity if the shoreland is characterized by high intensity development or uses or is zoned Neighborhood Business (NB), Commercial Business (CB), Regional Business (RB), Office (O), or Industrial (I), and:**

a. The shoreland does not contain limitations on urban uses, such as geological hazards or flood hazards; and

b. The shoreline does not provide important shoreline ecological processes and functions that would be significantly compromised by high intensity residential, commercial, or industrial use.

High Intensity Management Policies:

S-502 **In the High Intensity Shoreline Environment, King County shall give priority to non-residential land uses that are water-dependent or water-related.**

S-503 **King County shall discourage non-water-oriented, non-residential land uses in the High Intensity Shoreline Environment. Shoreline mixed-use developments that include and support water dependent uses may be allowed. King County should allow non-water-oriented land uses in the High Intensity Shoreline Environment only in limited situations and only if they do not conflict with or limit opportunities for water-dependent uses or are located on sites where there is no direct access to the shoreline.**

S-504 **Prior to allowing expansion of a high intensity non-water-oriented use in the shoreline environment, King County shall determine that there is no feasible alternative for locating the expansion outside of the shoreline jurisdiction.**

S-505 **King County should require visual or physical public shoreline access to be provided whenever feasible in the High Intensity Shoreline Environment.**

S-506 **King County shall protect the aesthetic character of the shoreline in the High Intensity Shoreline Environment through development regulations, including sign controls, development siting criteria, screening requirements and architectural standards, landscaping requirements and maintenance of natural vegetation.**

S-507 **King County shall require that the scale and intensity of new uses and development within the High Intensity Environment is compatible with, and protects or enhances, the existing character of the area.**

C. Residential Shoreline Environment

Purpose

The purpose of the residential shoreline environment is to accommodate residential and commercial uses on a scale appropriate with urban residential zones.

Residential Shoreline Designation Criteria

S-508 **A shoreline may be designated Residential Shoreline if the shoreland is characterized by urban levels of residential development or uses or is zoned Urban Residential (R) or Urban Reserve (UR) and:**

a. The shoreland does not contain limitations on urban uses, such as geological hazards or flood hazards; and

b. The shoreline not provide important shoreline ecological processes and functions that would be significantly compromised by urban levels of residential development.

Residential Shoreline Environment Management Policies:

S-509 **King County shall require that the scale and intensity of new uses and development within the Residential Shoreline Environment is compatible with, and protects or enhances the existing character of the area.**

S-510 **King County should encourage public or private outdoor recreation facilities that are compatible with the character of the area in the Residential Shoreline Environment. Water-dependent and water-enjoyment recreation facilities that provide opportunities for people to access and enjoy the shoreline are preferred uses in the Residential Shoreline Environment.**

S-511 **King County should discourage non-water-oriented commercial uses in the Residential Shoreline Environment. A non-water-oriented commercial use may be allowed as part of a shoreline mixed-use development or if the non-water-oriented use provides a substantial benefit with respect to the goals and policies of this Program, such as providing public access or restoring degraded shorelines.**

D. Rural Shoreline Environment

Purpose

The purpose of the Rural Shoreline Environment is to accommodate land uses normally associated with rural levels of development while providing appropriate public access and recreational uses to the maximum extent practicable.

Rural Shoreline Environment Designation Criteria

S-512 **A shoreline may be designated Rural Shoreline if the shoreland is characterized by rural levels of development or if the shoreland is zoned Rural Area (RA) and:**

- **a. The shoreland does not contain limitations on rural residential uses, such as geological hazards or flood hazards; and**
- **b. The shoreline does not provide important shoreline ecological processes and functions that would be significantly compromised by rural levels of residential development.**

Rural Shoreline Environment Management Policies:

S-513 **King County should limit uses in the Rural Shoreline Environment to those rural development activities and associated services that sustain the shoreline's physical and biological resources and that protect options for restoration to maximum extent practicable given the nature of rural development.**

S-514 **King County should require that multi-family and multi-lot residential and recreational developments in the Rural Shoreline Environment provide public access and joint use for community recreational facilities.**

E. Conservancy Shoreline Environment

Purpose

The purpose of the Conservancy Shoreline Environment is to conserve areas that are a high priority for restoration, include valuable historic properties or provide recreational opportunities.

Conservancy Shoreline Environment Designation Criteria

S-515 **A shoreline may be designated Conservancy Shoreline if it is in an area where important shoreline ecological processes have not been substantially degraded**

by human activities, where important shoreline ecological processes would be degraded by development or present a public health or safety risk, or where the shoreline is in public ownership and is managed for public access or recreation. Areas that may be included in Conservancy Shoreline are:

a. Shoreline reaches primarily within an identified FEMA floodway or severe channel migration hazard zone;

b. Lake shorelines or river shorelines with a restoration plan rating of A, B, or D;

c. Marine shorelines with a restoration plan rating of A, B, or D; and

d. Shorelines in public ownership and managed for public access or recreation.

Conservancy Shoreline Environment Management Policies:

S-516 **King County should limit uses in the Conservancy Shoreline Environment to those that sustain the shoreline area's physical and biological resources or to uses of a nonpermanent nature that do not substantially degrade the rural or natural character of the shoreline area or disturb historic and cultural resources. King County should discourage non-residential uses in the Conservancy Shoreline except as follows:**

a. King County should allow aquaculture, forestry and agriculture in the Conservancy Shoreline Environment; and

b. King County should allow water-dependent and water-enjoyment recreation facilities as preferred uses if significant adverse impacts to the shoreline are mitigated.

S-517 **King County shall require that new uses or development in the Conservancy Shoreline Environment preserve the existing character of the shoreline consistent with the purpose of the environment, including:**

a. Limiting the total effective impervious surface in the shoreline jurisdiction to no more than ten percent in order to maintain the existing hydrologic character of the site; and

b. Allowing more effective impervious surface coverage on lots legally created prior to the date of adoption of this update to King County's Shoreline Master Program. In these cases, effective impervious surface coverage shall be limited to the maximum extent practicable.

F. Resource Shoreline Environment

Purpose

The purpose of the Resource Shoreline Environment is to allow for mining and agricultural uses on lands that have been designated under the GMA as agricultural lands of long-term commercial significance or mineral resource lands where those lands do not provide significant shoreline ecological processes and functions.

Resource Shoreline Environment Designation Criteria

S-518 **A shoreline may be designated Resource Shoreline if the shoreland is zoned Agriculture or Mineral and the shoreline is not designated Natural Shoreline under Policy S-525.**

Resource Shoreline Environment Management Policies:

S-519 **King County should limit uses in the Resource Shoreline Environment to agricultural and mining activities.**

S-520 **King County shall adopt development standards for the Resource Shoreline Environment to preserve the existing character of the shoreline consistent with the purpose of the environment.**

G. Forestry Shoreline Environment

Purpose

The purpose of the Forestry Shoreline Environment is to allow for forestry uses in the Forest Production District and to protect municipal watersheds.

Forestry Shoreline Designation Criteria

S-521 **A shoreline may be designated Forestry Shoreline if the shoreland is within the Forest Production District and the shoreline is not designated as a Natural Shoreline or a Conservancy Shoreline.**

Forestry Shoreline Management Policies:

S-522 **King County shall require forest practices in the Forestry Shoreline Environment to comply with standards that provide protection for shoreline ecological processes and functions equal to or greater than the forest practice**

rules adopted by the Washington State Department of Natural Resources and in effect on January 1, 2007.

S-523 **King County shall allow activities related to the direct management and delivery of municipal domestic water supplies in the Forestry Shoreline Environment only when consistent with municipal domestic water supply best management practices.**

S-524 **King County shall allow agricultural and aquaculture uses within the Forestry Shoreline Environment if the use is subject to appropriate limitations or conditions to ensure that the use does not expand or alter practices in a manner inconsistent with the purpose of the designation.**

H. Natural Shoreline Environment

Purpose

The purpose of the Natural Shoreline Environment is to protect those shoreline areas that are relatively free of human influence and are of high ecological quality. This designation allows only very low intensity uses in order to maintain the existing high levels of ecological process and function.

Natural Shoreline Environment Designation Criteria

S-525 **A shoreline may be designated Natural Shoreline if the shoreline is:**

a. **Of high ecological quality and is performing an important, irreplaceable ecological process or function that would be damaged by human activity;**

b. **Unable to support new development or uses without significant adverse impacts to shoreline ecological processes and functions or risk to human safety;**

c. **A federally designated wilderness area or in an area managed by the King County Department of Natural Resources and Parks as natural lands; or**

d. **A marine shoreline reach that extends at least five hundred feet along the ordinary high water mark and either has a restoration plan rating of A or has a restoration plan rating of B and is located adjacent to the Maury Island Marine Aquatic Reserve.**

Natural Shoreline Environment Management Policies:

S-526 **King County shall not allow new shoreline armoring in the Natural Shoreline Environment.**

S-527 **King County shall not allow the following new uses in the Natural Shoreline Environment:**

- **a. Commercial uses;**
- **b. Industrial uses;**
- **c. Nonwater-oriented recreation uses that require shoreline modification in order to provide shoreline access;**
- **d. Mining and associated facilities, such as docks, piers, and loading facilities; and**
- **e. Transportation facilities, utility corridors, and parking areas that can be located outside of the Natural Shoreline Environment.**

S-528 **King County may allow single-family residential development in the Natural Shoreline Environment as a shoreline conditional use if the scale and intensity of the use is limited to protect shoreline ecological processes and functions and is consistent with the purpose of the environment. King County shall require new subdivisions and short-subdivisions in the Natural Shoreline Environment to locate new structures and impervious surfaces outside of the shoreline jurisdiction to the maximum extent practicable.**

S-529 **King County shall allow scientific, historical, cultural, and educational research uses in the Natural Shoreline Environment if no significant ecological impact on the area will result.**

S-530 **Except for removal of noxious weeds or invasive vegetation as provided for in S-645, King County shall not allow vegetation removal in the Natural Shoreline Environment that will reduce the capability of vegetation to perform normal ecological processes and functions.**

S-531 **King County shall allow agricultural and aquaculture uses of a very low intensity nature within the Natural Shoreline Environment if the use is subject to appropriate limitations or conditions to ensure that the use does not expand or alter practices in a manner inconsistent with the purpose of the designation.**

S-532 **King County shall allow passive and low-impact recreational activities in the Natural Shoreline Environment. New passive and low impact recreation activities shall use designs that avoid or minimize impacts to shoreline processes and functions. Maintenance of trails and campsites shall minimize disturbance and restoration of impacted areas is encouraged.**

S-533 **King County should use tax incentives, easements, and buyouts to protect shorelines in the Natural Shoreline Environment with important fish and wildlife habitat at risk from moderate to high intensity development.**

I. Aquatic Environment

Purpose

The purpose of the aquatic environment is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high water mark.

Aquatic Shoreline Environment Designation Criteria

S-534 **A shoreline shall be designated Aquatic if it is waterward of the ordinary high water mark of the shoreline.**

Aquatic Shoreline Environment Management Policies:

S-535 **King County shall allow new in-water and over-water structures in the Aquatic Shoreline Environment only for water-dependent uses, public access, or ecological restoration.**

S-536 **King County shall limit the size of new over-water structures in the Aquatic Shoreline Environment to the minimum necessary to support the structure's intended use.**

S-537 **King County shall encourage multiple uses of over-water facilities in the Aquatic Shoreline Environment in order to reduce the impacts of shoreline development and increase the effective use of water resources.**

S-538 **King County shall require all developments and uses on navigable waters or their beds in the Aquatic Shoreline Environment to be located and designed to minimize interference with surface navigation, to consider impacts to public**

views, and to allow for the safe, unobstructed passage of fish and wildlife and materials necessary to create or sustain their habitat, particularly those species dependent on migration.

S-539 **King County shall not allow uses in the Aquatic Shoreline Environment that adversely impact the ecological processes and functions of critical saltwater and freshwater habitats, except when necessary to achieve the objectives of RCW 90.58.020, and then only when the adverse impacts are mitigated according to the sequence described in WAC 173-26-201(2)(e) as necessary to assure no net loss of shoreline ecological processes and functions.**

S-540 **King County shall consider the guidance in the Maury Island Aquatic Reserve Management Plan in making decisions about permitted uses in the shoreline jurisdiction.**

VII. Environment Protection Policies

A. General Environmental Protection Policy Goals

The Ecology's guidelines recognize that shoreline ecological processes and functions may be impaired not only by shoreline developments that are required to obtain shoreline substantial development permits, but also by past actions, unregulated activities, and developments that are exempt from the shoreline substantial development permit requirements. The loss or degradation of shoreline ecological processes and functions from any of these activities can significantly impact shoreline natural resources and may also adversely impact human health and safety.

The concept of ecological processes and functions recognizes that any ecological system is composed of a wide variety of interacting physical, chemical, and biological processes. These processes are interdependent in varying degrees and at different scales, and that result in the landscape, habitats and species as they exist at any time. Ecological functions are the work performed or roles played individually or collectively within ecosystems by these processes.

1. Cumulative Impacts and "No Net Loss" of Ecological Processes and Functions

Nearly all shoreline areas, even substantially developed or degraded areas, retain important ecological processes and functions that contribute to the survival and successful reproduction of plants and animals. For example, an intensely developed harbor area may also have an important function as a fish migration corridor and feeding area critical to species survival. In addition, ecosystems are interconnected and many species may depend on the functioning of multiple systems for critical resources. As examples, anadromous fish depend upon the viability of freshwater, marine, and terrestrial shoreline ecosystems, and many wildlife species associated with shorelines depend on the functioning of both terrestrial and aquatic environments. Therefore, the policies for protecting and restoring ecological processes and functions should apply to the maximum extent practical to all shoreline areas, not just those that remain relatively unaltered.

The SMA requires that King County's Shoreline Master Program achieve no net loss of shoreline ecological processes and functions from new uses or development, and that it address the cumulative impacts on shoreline ecology that would result from future shoreline development. The SMA also requires local governments to plan for restoration of shoreline ecological processes and functions where they have been impaired, thus working towards actual improvement in shoreline ecological processes and functions. The following policies ensure that King County will address cumulative impacts of existing

and proposed shoreline development and work towards improving shoreline ecological processes and functions.

S-601 **King County shall ensure that new uses, development and redevelopment within the shoreline jurisdiction do not cause a net loss of shoreline ecological processes and functions.**

S-602 **King County should protect shorelines and conduct restoration in areas that have been previously degraded.**

S-603 **King County shall require shoreline uses and modifications to be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions to the maximum extent practical.**

S-604 **King County's Shoreline Master Program shall include regulations and mitigation standards to ensure that permitted and exempt developments in the aggregate will not cause a net loss of shoreline ecological processes and functions.**

S-605 **King County's Shoreline Master Program goals and policies will promote restoration of impaired shoreline ecological processes and functions. Policies and programs and non-regulatory actions that contribute to restoration goals will be identified. King County should consider the direct and indirect effects of regulatory or non-regulatory programs of other local, state, and federal governments, as well as any restoration effects that may result from shoreline development regulations and mitigation standards.**

S-606 **The King County Shoreline Master Program identifies restoration opportunities and planning elements that together should improve the overall condition of habitat and resources within the shoreline jurisdiction.**

S-607 **King County should provide options for property-specific technical assistance and tailored applications of shoreline management regulations through Rural Stewardship Plans for single family residential uses in the upland areas of the Rural, Conservancy and Natural Shoreline Environments. Rural Stewardship Plans must be consistent with the goals of the Shoreline Management Act and**

King County Shoreline Protection and Restoration Plan, and ensure no net loss of shoreline ecological processes and functions.

S-608 **The King County Shoreline Master Program shall consider the cumulative impacts of reasonably foreseeable future development to ensure no net loss of shoreline ecological processes and functions.**

S-609 **The Shoreline Master Program is intended to fairly allocate the burden of addressing cumulative impacts. King County should adopt policies and regulations that are designed to avoid the need for individualized cumulative impacts analysis for commonly occurring and planned development.**

S-610 **King County shall prefer and provide special permitting considerations for docks and piers that are shared among multiple landowners.**

S-611 **When updating the Shoreline Master Program, King County should analyze proposed policies and regulations to determine whether they will cause cumulative adverse impacts to the shoreline and consider how such impacts may be avoided. The evaluation of cumulative impacts should consider:**

a. Current condition of the shorelines and associated natural processes;

b. Reasonably foreseeable future development and shoreline uses;

c. An appropriate evaluation of the effect on shoreline ecological processes and functions caused by unregulated activities, development exempt from permitting, and effects such as the incremental impact of residential bulkheads, residential piers, or runoff from newly developed properties; and

d. Beneficial effects of any established regulatory programs under other local, state, and federal laws.

S-612 **King County should use the shoreline permitting or shoreline conditional use permitting processes for development proposals that may have impacts that cannot be anticipated or uncommon impacts that have not been considered or identified at time of adoption of the King County Shoreline Master Program to ensure that all impacts are addressed and that there is no net loss of ecological function of the shoreline after mitigation.**

S-613 **King County shall consider and address cumulative impacts of shoreline development on shoreline ecological processes and functions and on shoreline uses given priority under RCW Chapter 90.58.**

2. Ongoing Evaluation, Review of Cumulative Impacts and Duty to Update

King County will periodically review the Shoreline Master Program and make amendments that it determines are necessary to reflect changing local circumstances, new information and improved data, and to meet the requirements of RCW 90.58.080 and applicable guidelines. King County will also monitor actions taken to implement the Shoreline Master Program and the shoreline conditions to inform updates of Shoreline Master Program provisions and improve shoreline management over time.

S-614 **King County shall periodically review and amend its Shoreline Master Program using a process that inventories and ensures meaningful understanding of current and potential ecological processes and functions provided by affected shorelines.**

B. Shoreline Critical Areas

1. Standard for protection under the SMA

The GMA requires King County to protect the functions and values of critical areas, which are defined as wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas. Critical areas located within the shoreline jurisdiction are protected under the SMP rather than the GMA. The SMP provides a level of protection for critical areas to assure no net loss of shoreline ecological functions. In addition, the SMA requires King County to give optimum protection of shorelines of state-wide significance. The King County Comprehensive Plan and functional plans adopted as elements of the King County Comprehensive Plan also guide the protection of critical areas within the shoreline jurisdiction.

2. Use of scientific and technical information

The Shoreline Management Act requires local governments to use scientific and technical information when establishing protection measures for critical areas. To achieve this requirement, King County has, to the extent feasible:

1. Used a systematic interdisciplinary approach that ensures the integrated use of the natural and social sciences and the environmental design arts;

2. Consulted with and obtained the comments of any federal, state, regional, or local agency having any special expertise with respect to environmental impacts;
3. Considered all plans, studies, surveys, inventories, and systems of classification made or being made by federal, state, regional, or local agencies, by private individuals, or by organizations dealing with King County shorelines;
4. Used all available information regarding hydrology, geography, topography, ecology, economics, and other pertinent data;
5. Employed, when possible, all appropriate, modern scientific data processing and computer techniques to store, index, analyze, and manage the information gathered.

King County has reviewed and synthesized a wide range of scientific information resulting in regulatory standards based on the best available science for the protection of critical areas. In addition, King County considered state, Tribal and federal programs to provide a full spectrum of planning and regulatory measures to guide critical areas protection in shorelines.

S-615 **In considering development regulations to protect shoreline ecological processes and functions, King County shall consider the scientific and technical information contained in functional plans adopted to implement the Comprehensive Plan, adopted watershed plans, King County critical areas regulations and state, Tribal and federal programs.**

In order to ensure no net loss of shoreline ecological processes and functions resulting from development proposed in shoreline critical areas, the King County SMP requires that development proposals analyze the environmental impacts of the proposal and consider measures to avoid, if possible, and then mitigate for the adverse environmental impacts.

S-616 **King County shall apply the following sequence of steps listed in order of priority in evaluating the impacts of development and redevelopment on critical areas within the shoreline jurisdiction:**

a. Avoid the impacts altogether;
b. Minimize impacts;
c. Rectify impacts by repairing, rehabilitating or restoring the affected environment;
d. Reduce or eliminate the impacts over time;
e. Compensate for impacts by replacing, enhancing or providing substitute resources; and
f. Monitor the impact and taking appropriate corrective measures.

3. Wetlands

When determining allowed uses within wetlands and their buffers in shorelines of the state, consideration should be given to those uses that would result in no net loss of wetland area and wetland function. Consideration should be given to specific uses that are likely to positively impact the physical, chemical, and biological processes that create and sustain wetlands.

S-617 **King County wetland regulations shall address the following uses to achieve, at a minimum, no net loss of wetland area and functions:**

- **a. Removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;**
- **b. Dumping, discharging, or filling with any material, including discharges of stormwater and domestic, commercial, or industrial wastewater;**
- **c. Draining, flooding, or disturbing of the open water level, duration of inundation, or groundwater table;**
- **d. Driving of pilings;**
- **e. Placing of obstructions;**
- **f. Construction, reconstruction, demolition, or expansion of any structure;**
- **g. Significant vegetation removal, except for non-conversion forest practices regulated under RCW chapter 76.09;**
- **h. Other uses or development that results in a significant ecological impact to the physical, chemical or biological characteristics of wetlands; and**
- **i. Activities reducing the functions of buffers.**

Wetlands shall be categorized based on rarity, irreplaceability, or sensitivity to disturbance, as well as the functions the wetland provides. The SMA provides the option of using specified wetland rating systems or developing a regionally specific system, provided the system is scientifically based and provides a method to distinguish wetland quality and function. King County adopted the Washington State Wetland Rating System for Western Washington for use in categorizing wetlands under the GMA critical areas development standards.

S-618 **King County shall categorize wetlands within shorelines of the state as provided for in Chapter 4, Environment, of the King County Comprehensive Plan.**

The King County SMP provisions that would allow limited alterations to wetlands shall be consistent with the policy of no net loss of wetland area and functions, wetland rating, and scientific and technical information.

S-619 **King County should allow alterations to wetlands only if there is no net loss of wetland functions and values.**

The King County SMP requires buffers be delineated and protected around wetlands. The size of the wetland buffer is based on the classification of the wetland and its characteristics and whether the wetland is located within or outside of the Urban Growth Area. Mitigation measures have been established to obtain a reduced buffer width in return for added measures to address light, noise, toxic runoff, change in water regime, pets and human disturbance, dust, and degraded buffer condition. Other modifications to buffer widths are allowed through buffer averaging. Circumstances, such as the presence of threatened or endangered species or proximity to steep slopes, may authorize increased buffer widths.

S-620 **King County shall delineate buffers around wetlands to protect and maintain wetland functions. Buffer widths shall be based on ecological function, characteristics and setting, potential impacts with adjacent land use, and other relevant factors.**

The King County SMP requires that mitigation measures achieve equivalent or greater wetland functions including, but not limited to, habitat complexity, connectivity and other biological functions, and seasonal hydrological dynamics. Preferential consideration is given to measures that replace the impacted functions directly and in the immediate vicinity of the impact.

S-621 **In determining appropriate mitigation measures applicable to shoreline development, the mitigation sequencing requirements described in WAC 173-26-202(d)(e) require that lower priority measures shall be applied only where higher priority measures are determined to be infeasible or inapplicable.**

King County may authorize alternative compensatory mitigation within the watershed that addresses limiting factors or identified critical needs for shoreline resource conservation based on watershed or comprehensive resource management plans applicable to the area of impact. Authorization of compensatory mitigation measures may require appropriate safeguards, terms, or conditions as necessary to ensure no net loss of shoreline ecological processes and functions.

S-622 **King County may allow compensatory mitigation only after a mitigation sequence is applied (see Policy S-616) and higher priority means of mitigation are determined to be infeasible.**

- **a. Compensatory mitigation replacement ratios or other mitigation provisions shall consider:**
  - **1. The risk of failure of the compensatory mitigation action;**
  - **2. The length of time the compensatory mitigation action will take to replace adequately the impacted wetland functions and values; and**
  - **3. The gain or loss of the type, quality, and quantity of the ecological functions of the compensation.**
- **b. Performance standards shall be established to evaluate the success of compensatory mitigation.**
- **c. Long-term monitoring shall be required to determine if performance standards are met.**
- **d. Long-term protection and management shall be required for compensatory mitigation sites.**

4. Critical Aquifer Recharge Areas

King County has classified and mapped critical aquifer recharge areas according to the vulnerability of the aquifer. Vulnerability is the combined effect of hydrogeological susceptibility to contamination and the contamination loading potential. High vulnerability is indicated by land uses that contribute contamination that may degrade groundwater and by hydrogeologic conditions that facilitate degradation. Low vulnerability is indicated by land uses that do not contribute contaminants that will degrade groundwater and by hydrogeologic conditions that do not facilitate degradation. Critical aquifer recharge areas are required to be protected under the GMA as a critical area.

S-623 **The King County Shoreline Master Program shall protect critical aquifer recharge areas consistent with the King County Comprehensive Plan and critical areas regulations.**

5. Geologically Hazardous Areas

Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological processes and events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard.

Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices, so that risks to health and safety are acceptable. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided. Under the King County SMP, geologically hazardous areas include:

1. Erosion hazard areas;
2. Landslide hazard areas;
3. Seismic hazard areas;
4. Coal mine hazard areas;
5. Volcanic hazard areas; and
6. Steep slope hazard areas.

The following policies to protect health and safety and also to reduce the loss of shoreline ecological processes and functions apply to geological hazardous areas located within the shoreline jurisdiction.

S-624 **Development regulations for geologically hazardous areas shall meet the minimum requirements in WAC 365-190-080(4).**

S-625 **King County shall prohibit development and new lot creation in geologically hazardous areas if it would result in increased risk of injury to people or property damage, consistent with K.C.C. chapter 21A.24.**

S-626 **King County shall prohibit new development that requires structural stabilization in geologically hazardous areas. Stabilization will be allowed in these areas only if the stabilization is necessary to protect existing allowed uses, there is no alternative location available, and no net loss of shoreline ecological processes and functions will result. Stabilization measures shall conform to WAC 173-26-231.**

S-627 **King County may allow stabilization structures or measures in geologically hazardous areas to protect existing primary residential structures, if there are no alternatives, including relocation or reconstruction of the residential structure, the stabilization is in conformance with WAC 173-26-231, and no net loss of shoreline ecological processes and functions will result.**

6. Fish and Wildlife Habitat Conservation Areas

King County is required by the GMA to protect fish and wildlife habitat conservation areas as critical area. The Washington Department of Community, Trade, and Economic Commerce (Commerce) adopted guidelines to assist local governments in designating critical areas, including fish and wildlife habitat conservation areas. The Commerce guidelines are designed to define and protect areas necessary to maintain species in suitable habitats within their natural geographic distribution, at least in part so that isolated subpopulations are not created. Commerce identifies the following areas as being suitable for fish and wildlife habitat conservation areas:

1. Areas with which endangered, threatened, and sensitive species have a primary association; areas critical for habitat connectivity;
2. Habitats and species of local importance;
3. Commercial and recreational shellfish areas;
4. Kelp and eelgrass beds; herring, smelt and sand lance spawning areas;
5. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat;
6. Waters of the state;
7. Lakes, ponds, streams, and rivers planted with game fish by a governmental or Tribal entity; or
8. State natural area preserves and natural resource conservation areas.

The King County Comprehensive Plan and its development regulations protect the functions and values of fish and wildlife habitat conservation areas through its provisions governing aquatic areas and wildlife habitat conservation areas.

Ecology's guidelines divide fish and wildlife habitat conservation areas into critical saltwater and critical freshwater habitats.

a. Critical saltwater habitat

Critical saltwater habitats include all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as herring, smelt and sand lance; subsistence, commercial and recreational shellfish beds; mudflats, spits, intertidal habitats with vascular plants, and areas with which priority species have a primary association. Critical saltwater habitats include both the shorelines and the adjacent submerged areas.

S-628 **King County shall provide a high level of protection to critical saltwater habitats due to the important ecological functions they provide.**

S-629 **Protection and restoration of critical saltwater habitats should integrate management of shorelands as well as submerged areas.**

Comprehensive planning for the protection and restoration of critical saltwater habitat should include state resource agencies, local and regional government entities including, but not limited to the Port of Seattle and Sound Transit, and affected Tribes. To reverse the impacts from development on critical saltwater habitats, the King County Shoreline Master Program should look for opportunities to restore critical saltwater shorelines and protect them from further degradation. All resources should be reviewed and considered.

S-630 **As part of its management planning for critical saltwater habitats, King County should include an evaluation of current data and trends regarding:**

- **a. Available inventory and collection of necessary data regarding physical characteristics of the habitat, including upland conditions, and any information on species population trends;**
- **b. Terrestrial and aquatic vegetation;**
- **c. The level of human activity in such areas, including the presence of roads and level of recreational types. Passive or active recreation may be appropriate for certain areas and habitats;**
- **d. Restoration potential;**
- **e. Tributaries and small streams flowing into marine waters;**
- **f. Dock and bulkhead construction, including an inventory of bulkheads serving no protective purpose;**
- **g. Conditions and ecological function in the near-shore area;**
- **h. Uses surrounding the critical saltwater habitat areas that may negatively impact those areas, including permanent or occasional upland, beach, or over-water uses;**
- **i. Potential Tribal uses of critical saltwater habitats to ensure that these uses are protected and restored when possible; and**
- **j. An analysis of what data gaps exist and a strategy for gaining this information.**

Because of the need for a higher level of protection for critical saltwater habitat, allowed uses should be carefully limited and only allowed to meet other policy goals of the SMA.

S-631 **Docks, bulkheads, bridges, fill, floats, jetties, utility crossings, and other human-made structures shall not intrude into or over critical saltwater habitats except when all of the conditions below are met:**

- **a. The public's need for such an action or structure is clearly demonstrated, and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020;**
- **b. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible or would result in unreasonable and disproportionate cost to accomplish the same general purpose;**
- **c. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat; and**
- **d. The project is consistent with state and Tribal interests in resource protection and species recovery.**

S-632 **Public or private noncommercial docks for public, individual residential or community use may be authorized provided that:**

- **a. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible; and**
- **b. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.**

b. Critical freshwater habitat

Critical freshwater habitats are equally important to saltwater areas as fish and wildlife habitat conservation areas along shorelines of the state. Critical freshwater habitats include streams and rivers, with their associated channel migration zones, floodplains, wetlands, and lakes. Shorelines along these freshwater habitats often have been highly developed and are currently adversely impacted by improper stormwater, sewer, or industrial outfalls; unmanaged clearing and grading; and surface water runoff from buildings and parking lots. Some impacts include altered quality and quantity of runoff, as well as destruction or alteration of vegetation. Potential impacts from vegetation changes can include increased water temperatures and altered hydrographic conditions. All of these changes create inhospitable conditions in water bodies for priority species and, in addition, make them more susceptible to problems stemming from catastrophic flooding, droughts, landslides and channel changes.

Some freshwater habitats, particularly rivers and floodplains, often are considered as hazardous areas that can threaten life and property during catastrophic events, such as flooding. Development can exacerbate such conditions.

As with critical saltwater habitats, comprehensive planning for the protection and restoration of critical freshwater habitat should include state resource agencies, local and regional government entities including, but not limited to the Port of Seattle and Sound Transit, and affected Tribes. To reverse the impacts from development on critical freshwater habitats, the King County SMP should look for opportunities to restore critical freshwater shorelines and protect them from further degradation. All resources should be reviewed and considered.

S-633 **King County shall provide a high level of protection to critical freshwater habitats due to the important ecological functions they provide.**

S-634 **King County should establish priorities for protection and restoration, where appropriate, along unincorporated river corridors and lake shorelines.**

S-635 **King County should regulate uses and development as necessary within and along stream channels, associated channel migration zones, wetlands, lake shorelines, and floodplains within the shoreline jurisdiction, to assure that no net loss of shoreline ecological processes and functions results from new development near freshwaters of the state, including associated hyporheic zones.**

S-636 **King County shall protect ecological functions associated with critical freshwater habitat as necessary to assure no net loss from shoreline activities and associated changes.**

S-637 **King County should facilitate authorization of appropriate restoration projects.**

C. Frequently Flooded Areas and Channel Migration Hazard Areas

The King County 2006 Flood Hazard Management Plan was adopted as a functional plan of the King County Comprehensive Plan. The Flood Plan outlines the policies, programs, and projects that King County uses to reduce the risk from flooding and channel migration. The King County 2006 Flood Hazard Management Plan was reviewed for consistency with the SMA and determined to be consistent with it. King County maps Channel Migration Hazard Areas and applies critical areas regulations to assure that channel migration can be accommodated.

S-638 **The policies contained within the King County Flood Hazard Management Plan, or its successor, constitute the policies for the protection of frequently flooded**

areas and channel migration within shorelines. Provisions implementing these policies are included in the critical areas regulations.

S-639 **King County shall continue mapping channel migration zones on all of its rivers and streams within shoreline jurisdiction where channel migration zones have not already been mapped.**

D. Shoreline Vegetation Conservation

A major intent of vegetation conservation is to protect and restore the ecological processes and functions performed by stands of vegetation along shorelines. Vegetation conservation can also be undertaken to protect human safety and property, to increase the stability of river banks and coastal bluffs, to reduce the need for structural shoreline stabilization measures, to improve the visual and aesthetic qualities of the shoreline, to protect particular plant and animal species and their habitats, and to enhance shoreline uses.

In King County, aquatic environments, as well as their associated upland and wetland vegetated areas, provide significant habitat for a wide variety of fish and wildlife species. Healthy environments for aquatic species are inseparably linked with the ecological integrity of the surrounding terrestrial ecosystems. For example, nearly continuous stretches of mature forest characterize the natural riparian conditions of the Pacific Northwest. Riparian areas along marine shorelines provide the same or similar functions as their freshwater counterparts. The most commonly recognized functions of the shoreline vegetation include, but are not limited to:

- Providing shade necessary to maintain cool water temperatures required by salmonids, spawning forage fish, and other aquatic biota.
- Providing external organic inputs critical for some aquatic life.
- Providing food for various insects and other benthic macro invertebrates, which are in turn food sources for fish, birds, and other wildlife.
- Stabilizing banks, minimizing erosion, and reducing the occurrence of landslides. The roots of trees and other riparian vegetation provide the bulk of this function.
- Reducing fine sediment input into the aquatic environment through stormwater retention and vegetative filtering.
- Filtering and vegetative uptake of nutrients and pollutants from groundwater and surface runoff.
- Providing a source of large woody debris for introduction into the aquatic system. Large woody debris is a primary structural component in streams that functions as a hydraulic roughness element to moderate flows and store sediment. Large woody debris also serves a pool-forming function, providing critical salmonid rearing and refuge habitat. Abundant large woody debris increases aquatic diversity and stabilizes systems.

- Regulating microclimates in the lake and stream-riparian and intertidal corridors.
- Providing critical wildlife habitat, including migration corridors and feeding, watering, rearing, and refuge areas.

The length, width, and species composition of a shoreline vegetation community all contribute substantively to aquatic ecological functions. Likewise, the biological communities of the aquatic environment are essential to ecological functions of the adjacent upland vegetation. The ability of vegetated areas to provide critical ecological functions diminishes as the length and width of the vegetated area along shorelines is reduced. When shoreline vegetation is removed, there is a greater risk that important ecological functions will not be provided.

Sustaining different ecological functions requires varying widths, compositions, and densities of vegetation. The importance of the different functions, in turn, varies with the type of shoreline setting. For example, in forested shoreline settings, periodic introduction of fallen trees, especially conifers, into the stream channel is an important attribute that is critical to natural stream channel maintenance.

Vegetation conservation includes activities to protect and restore vegetation that contributes to the ecological functions of shoreline areas along or near marine and freshwater shorelines.[1] Vegetation conservation provisions generally include the prohibiting or limiting plant clearing and earth grading, restoring vegetation, and controlling invasive weeds and nonnative species.

S-640 **King County shall adopt planning provisions to address vegetation conservation and restoration and regulatory provisions to address conservation of vegetation, as necessary, to assure no net loss of shoreline ecological processes and functions, to avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion.**

S-641 **Vegetation conservation provisions apply to all shoreline uses and developments, whether or not the use or development requires a shoreline substantial development permit.**

S-642 **Vegetation conservation standards shall not apply retroactively to existing uses and structures, such as existing agricultural practices.**

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[1] Vegetation conservation does not include those activities covered under the Washington State Forest Practices Act, except for conversion to other uses and those other forest practice activities over which local governments have authority.

S-643 **King County should identify which ecological processes and functions are important to the local aquatic and terrestrial ecology, and then conserve sufficient vegetation to maintain these functions. Vegetation conservation areas are not necessarily intended to be closed to use and development, but should provide for management of vegetation in a manner adequate to assure no net loss of shoreline ecological processes and functions.**

S-644 **King County should adopt development regulations for vegetated areas along streams, which once supported or could in the future support mature trees, that include buffers of sufficient width to facilitate the growth of mature trees and periodic recruitment of woody vegetation into the water body to support vegetation-related shoreline functions.**

S-645 **King County should adopt mechanisms to implement the vegetation conservation policies of this chapter. These mechanisms may include setback or buffer requirements, clearing and grading standards, regulatory incentives, environment designation standards, or other provisions. Selective pruning of trees for safety and view protection may be allowed. Removal of noxious weeds and invasive vegetation should be allowed as long as appropriate best management practices are followed.**

E. Water Quality, Stormwater and Non-Point Pollution

The Shoreline Master Program must protect against adverse impacts to the public health, to the land with its vegetation and wildlife, and to the waters of the state and their aquatic life. The intent of water quality, stormwater and non-point pollution policies is to provide shoreline protection by preventing adverse impacts to shoreline ecological processes and functions, aquatic habitats, and water dependent uses such as aquaculture and fishing.

S-646 **Shoreline Master Program water quality, stormwater, and non-point pollution policies apply to all development and uses in the shoreline jurisdiction that affect water quality.**

S-647 **King County should work to prevent impacts to water quality and stormwater quantity that would result in a net loss of shoreline ecological functions,**

degraded aesthetic qualities, loss of recreational opportunities or reduction in water-dependent uses, such as aquaculture and fishing.

S-648 **King County should ensure mutual consistency between shoreline management provisions and other regulations that address water quality and stormwater quantity, including Public Health—Seattle & King County standards, the King County Surface Water Design Manual, and King County surface water management regulations. The regulations that are most protective of ecological functions shall apply.**

S-649 **The Shoreline Master Program shall include provisions to implement the water quality, stormwater and non-point pollution policies in this chapter.**

F. Preparing for Climate Change

As discussed in Chapter 4 of the King County Comprehensive Plan, climate change has the potential for significant impacts on shorelines and shoreline habitats. Sea-level rise and storm surges may place at risk infrastructure, habitat restoration projects, and other development, including residential development. New development and maintenance or replacement of existing development should take into account the potential for harm that may result from sea-level rise.

S-650 **King County shall ensure that new projects for and major maintenance or replacement of utilities, roads, and other public infrastructure consider the impacts of sea-level rise in the location, design, and operation of the projects.**

S-651 **Habitat protection and restoration projects in the shoreline jurisdiction shall consider implications of sea-level rise and other climate change impacts to promote resiliency of habitats and species.**

VIII. Shoreline Use & Shoreline Modification

A. Shoreline Use versus Shoreline Modification

The SMA makes a distinction between a shoreline use and a shoreline modification. A shoreline use is an activity that is allowed within the shorelines jurisdiction. In most cases in order to engage in an activity, the shoreline must be modified. Shoreline modifications often involve construction of a physical element, such as a dike, breakwater, dredged basin, or fill, as well as other actions such as clearing, grading, application of chemicals, or significant vegetation removal. This means that shoreline modifications are often undertaken in support of or in preparation for an activity along shorelines.

B. Shoreline Use

1. Generally

Land uses in King County are based on federal, state, and county policies and regulations. The baseline permitted uses are established in zoning regulations. Land uses that would be allowed in zoning may be further limited by the King County Shoreline Master Program and shoreline management regulations.

S-701 **King County shall give preference to uses in the shoreline that are consistent with the control of pollution and prevention of damage to the natural environment or are unique to or dependent upon the shoreline.**

S-702 **Development within the shoreline jurisdiction shall protect the public's health, safety, and welfare, as well as the land, including its vegetation and wildlife, and protect property rights while implementing the policies of the Shoreline Management Act.**

S-703 **Where there is a conflict between the uses permitted in the land use zone and the Shoreline Master Program for a site, the Shoreline Master Program shall control and preference shall be given first to water-dependent uses, then to water-related uses, and finally to water-enjoyment uses.**

S-704 **Shoreline Master Program development regulations shall ensure no net loss of shoreline ecological processes and functions.**

S-705 **King County shall adopt use policies and development regulations to achieve consistency among and between shorelands and adjacent lands as required by RCW 90.58.340.**

2. Shoreline Conditional Uses

For the purposes of the King County SMP, a shoreline conditional use may be appropriate in order to:

1. Effectively address unanticipated uses that are not classified in the SMP;
2. Address cumulative impacts; or
3. Provide the opportunity to require specially tailored environmental analysis or design criteria for types of use or development that may otherwise be inconsistent with a specific designation within the SMP or with the SMA policies.

S-706 **The following types of uses and development should require a shoreline conditional use permit:**

1. **Uses and development that may significantly impair or alter the public's use of the waters of the state;**
2. **Uses and development which, by their intrinsic nature, may have a significant impact on shoreline ecological processes and functions depending on location, design, and site conditions; and**
3. **Development in critical saltwater habitats.**

3. Agriculture

The SMA defines agricultural activities as:

> "agricultural uses and practices including, but not limited to: Producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities, provided that the replacement facility is no closer to the shoreline than the original facility; and maintaining agricultural lands under production or cultivation".

The SMA prohibits shoreline master programs from requiring modification to or limiting existing agricultural activities on agricultural lands in the shoreline jurisdiction. This limitation does not apply to new agricultural activities.

S-707 **The King County Shoreline Master Program shall not require modification of or limit existing agricultural activities in the shoreline jurisdiction. Existing agricultural activities in the shoreline jurisdiction shall be governed by existing provisions of the King County Comprehensive Plan and the King County Code.**

S-708 **New agricultural activities in the shoreline jurisdiction shall comply with the critical areas regulations incorporated into the shoreline master program as they apply to agricultural activities.**

As required by the GMA, King County has designated agricultural lands of long-term commercial significance. These lands have been included in Agricultural Production Districts under the King County Comprehensive Plan. Land uses meeting the definition of "agricultural activities" also occur outside the designated Agricultural Production Districts. The King County SMP encourages agricultural uses, but they must be compatible with the shoreline designation in which they are proposed. In addition, under the rare circumstances when land is removed from the Agricultural Production Districts, any development occurring on that land must be consistent with the shoreline designation where it is located.

S-709 **New agricultural activities within the shoreline jurisdiction and outside the Agricultural Production Districts shall be consistent with the shoreline designation where the land is located.**

S-710 **New agricultural activities within the shoreline jurisdiction and outside the Agricultural Production Districts shall be located and designed to ensure no net loss of shoreline ecological processes and functions and shall not result in an adverse impact on other shoreline resources and ecological values.**

S-711 **Development and uses on land removed from the Agricultural Production Districts shall be consistent with the shoreline designation where the land is located.**

4. Forestry

In general, Ecology's guidelines require local shoreline master programs to rely on the Forest Practices Act and the rules implementing that Act and the *Forest and Fish Report* as adequate management of commercial forest uses within the shoreline jurisdiction. When a property owner chooses to convert

commercial timber land to a use other than timber production, the regulations for commercial forestry no longer apply.

S-712 **If land is being converted to a non-forest use through Class IV-General forest practice, the provisions of the King County Shoreline Management Program that apply to development activities governs the proposed land use.**

Because shorelines of statewide significance require a higher level of protection, special provisions apply to forestry within shorelines of statewide significance.

S-713 **Within shorelines of statewide significance, selective commercial timber cutting shall be used for timber harvest within two hundred feet abutting landward of the ordinary high water mark so that no more than thirty percent of the merchantable trees may be harvested in any ten year period of time. Through a shoreline conditional use permit, King County may approve:**

a. Other timber harvesting methods in those limited instances where the topography, soil conditions, or silviculture practices necessary for regeneration render selective logging ecologically detrimental; and

b. Clear cutting of timber that is solely incidental to the preparation of land for other uses authorized by the King County Shoreline Master Program.

S-714 **For forest practice conversions and other Class IV-General forest practices, where there is a likelihood of conversion to nonforest uses, King County shall ensure that there is no net loss of shoreline ecological processes and functions and that there are no significant adverse impacts to other shoreline uses, resources, and values such as navigation, recreation, and public access.**

5. Surface Drilling for Oil and Gas

The SMA prohibits surface drilling in the waters of Puget Sound north to the Canadian boundary and the Strait of Juan de Fuca seaward from the ordinary high water mark and on all lands within one thousand feet landward from that line.

S-715 **Surface drilling for oil or gas shall be prohibited in Puget Sound seaward from the ordinary high water mark and on all lands within one thousand feet landward from the ordinary high water mark on Puget Sound.**

6. Aquaculture

Aquaculture is the culture or farming of food fish, shellfish, or other aquatic plants and animals. Aquaculture is dependent on the use of the water area and, when consistent with goals for aesthetics, public access, control of pollution and prevention of damage to the environment, is a preferred use of the water area. Aquaculture is a growing industry of statewide significance. Aquaculture should be accommodated so long as it does not result in a net loss of shoreline ecological processes and functions. The visual and aesthetic impacts of aquaculture should not overwhelm adjacent land uses.

S-716 **Aquaculture is a water-dependent use and is a preferred use of the shoreline when consistent with control of pollution and avoidance of adverse impacts to the environment and preservation of habitat for native species, (WAC 173-26-241(3)(b)).**

S-717 **Potential locations for aquaculture activities are relatively restricted because of specific requirements related to water quality, temperature, oxygen content, currents, adjacent land use, wind protection, commercial navigation, and salinity. The technology associated with some forms of aquaculture is still experimental and in formative states. Therefore, when implementing development regulations related to aquaculture, King County should provide flexibility in its development regulations governing the siting of aquaculture facilities. Those regulations shall require avoidance of adverse impacts to existing uses, to the maximum extent practical, and no net loss in shoreline ecological functions and processes.**

S-718 **Aquaculture activities shall be designed, located and operated in a manner that supports long-term beneficial use of the shoreline and protects and maintains shoreline ecological processes and functions. Aquaculture shall not be permitted where it would result in net loss of shoreline ecological functions; net loss of habitat for native species including eelgrass, kelp, and other macroalgae; adverse impacts to other habitat conservation areas; or interference with navigation or other water-dependent uses.**

S-719 **Aquaculture facilities shall be designed, operated and located so as not to spread disease to native aquatic life, establish new nonnative species that cause significant ecological impacts, or substantially impact the aesthetic qualities and public access of the shoreline.**

S-720 **Preference should be given to those forms of aquaculture that involve lesser environmental and visual impacts and lesser impacts to native plant and animal species. In general, projects that require no structures, submerged structures or intertidal structures are preferred over those that involve substantial floating structures. Projects that involve little or no substrate modification are preferred over those that involve substantial modification, recognizing that in some circumstances that the importation of sand or pea gravel on rocky or cobble substrates may result in more diverse habitat. Projects that involve little or no supplemental food sources, pesticides, herbicides or antibiotic application are preferred over those that involve such practices.**

S-721 **Aquaculture shall not be permitted if it involves significant risk of cumulative adverse effects on water quality, sediment quality, benthic and pelagic organisms, or wild fish populations through potential contribution of antibiotic resistant bacteria, or escapement of non-native species, or other adverse effects on native species or threatened or endangered species and their habitats.**

S-722 **King County shall consider the potential beneficial impacts and the potential adverse impacts of new aquaculture development on the physical environment; on other existing and approved land and water uses, including navigation; and on the aesthetic qualities of a project area.**

S-723 **Legally established aquaculture uses, including authorized experimental projects, should be protected from incompatible uses that may seek to locate nearby. King County may deny uses or developments that have a high probability of damaging or destroying a legally established existing aquaculture.**

S-724 **King County should review and make permit decisions on restoration projects associated with aquaculture in a timely manner.**

S-725 **Experimental aquaculture projects in water bodies should be limited in scale and should be approved for a limited period of time. Experimental aquaculture means an aquaculture activity that uses methods or technologies that are unprecedented or unproven in the State of Washington.**

S-726 **King County should actively seek substantive comment regarding potential adverse impacts of any shoreline permit application for aquaculture from all appropriate Federal, State and local agencies; the Muckleshoot Tribe, the Puyallup Tribe of Indians, the Tulalip Tribes and other Tribes with treaty fishing rights; and the general public. Comments of nearby residents or property owners directly affected by an aquaculture proposal should be considered and evaluated, especially in regard to use compatibility and aesthetics.**

S-727 **The rights of treaty Tribes to aquatic resources within their usual and accustomed areas should be addressed through the permit review process. Direct and early coordination between the applicant or proponent and the tribe should be encouraged.**

7. Boating Facilities

Boating facilities provide the boating public recreational opportunities on waters of the state, but should be sited carefully to assure no net loss of shoreline ecological processes and functions and to maintain the aesthetic quality of the shoreline. For purposes of the King County Shoreline Master Program, "boating facilities" do not include docks serving four or fewer single-family residences.

S-728 **Boating facilities shall be located only at sites with suitable environmental conditions, shoreline configuration, access, and neighboring uses, and:**

- **a. Meet health, safety and welfare requirements;**
- **b. Mitigate aesthetic impacts;**
- **c. Provide public access in new marinas, unless there is a safety or security concern;**
- **d. Prevent the impacts to shoreline resources from boaters living on their vessels;**
- **e. Restrict vessels should be restricted from extended mooring on waters of the state unless authorization is obtained from the Washington Department of Natural Resources and impacts to navigation and public access are mitigated;**
- **f. Assure no net loss of shoreline ecological processes and functions or other significant adverse impacts; and**
- **g. Protect the rights of navigation.**

8. Commercial Development

Some commercial uses within the shoreline jurisdiction may be required to incorporate appropriate design and operational elements to qualify as water-related or water-enjoyment. Public access and ecological restoration are considered appropriate mitigation for the impact to shorelines unless it is determined public access is infeasible or inappropriate. Most commercial land in unincorporated King County is located outside the shoreline jurisdiction.

S-729 **King County shall require all commercial development on public land to provide public access, unless the use is incompatible with public access or there are public safety concerns.**

S-730 **King County shall permit non-water-oriented commercial uses in the shoreline jurisdiction only if:**

- **a. The non-water-oriented commercial use is limited to the minimum size necessary for the use;**
- **b. The use provides a significant public benefit with respect to the Shoreline Management Act's objectives such as providing public access and ecological restoration; and**
- **c. The use is part of a mixed-use project that includes water-dependent uses; or navigability is severely limited at the proposed site.**

S-731 **King County may allow nonwater-oriented commercial development in the shoreline jurisdiction if the site is physically separated from the shoreline by another property or public right-of-way.**

S-732 **King County shall allow over-water nonwater-dependent commercial uses only in existing structures or if the use is auxiliary to and necessary to support a water-dependent use. The area of any over-water structure shall be limited to the maximum extent practical.**

S-733 **King County shall prohibit commercial development that will have significant adverse impact to other shoreline uses, resources and values, such as navigation, recreation and public access. King County shall require mitigation for all commercial development in the shoreline jurisdiction to ensure that it does not cause a net loss of shoreline ecological processes and functions.**

9. Industry

The King County Shoreline Master Program establishes a hierarchy for industrial development within the shoreline jurisdiction. Most industrial land in King County is located within cities rather than within unincorporated King County.

S-734 **In the shoreline jurisdiction, King County shall give preference to industrial uses in the following order: first, water-dependent industrial uses; second, water-related industrial uses; and third, non-water-oriented industrial uses.**

S-735 **To mitigate for the impacts of industrial development within the shoreline jurisdiction, King County should require ecological restoration and public access, unless it determines that public access is infeasible or inappropriate.**

S-736 **King County shall require industrial uses located on public land in the shoreline jurisdiction to provide public access, unless the use is incompatible with public access or there are public safety concerns.**

S-737 **King County should encourage Industrial development and redevelopment to be located where environmental cleanup and restoration of the shoreline can be incorporated.**

S-738 **King County shall permit new nonwater-oriented industrial development in the shoreline jurisdiction only if:**

- **a. The use is part of a mixed-use project that includes water-dependent uses or navigability is severely limited; and**
- **b. The use provides a significant public benefit with respect to the Shoreline Management Act's objectives, such as providing public access and ecological restoration.**

S-739 **King County may allow nonwater-oriented industrial uses in the shoreline jurisdiction if the site is physically separated from the shoreline by another property or public right-of-way.**

10. In-Water Structures

"In-water structure" means a structure placed by humans within a stream, river, or lake waterward of the ordinary high-water mark that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-water structures may include those for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish collection weir, or other purposes.

S-740 **In-water structures shall provide for the protection and preservation of shoreline ecological processes and functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydro-geological processes, and natural scenic vistas.**

S-741 **The location and planning of in-water structures shall give due consideration to the full range of public interests and shoreline ecological processes and functions, with special emphasis on protecting and restoring habitat for threatened or endangered species.**

11. Mining

King County has identified and designated land that is appropriate for the removal of sand, gravel, soil, minerals and other extractable resources. In King County, gravel removal was a common method of flood control in the first half of the 20th century. However, mining within shorelines can have significant impacts, particularly to habitat for threatened and endangered aquatic and riparian species.

S-742 **Mining may be allowed within the shoreline jurisdiction if it is:**

a. Consistent with the environment designation policies of the King County Shoreline Master Program and provisions of the Shoreline Management Act; and

b. Located within mineral resource lands designated by the King County Comprehensive Plan.

S-743 **New mining and associated activities shall be designed and conducted to comply with the regulations of the environment designation where the activity occurs and the provisions applicable to critical areas where relevant. Accordingly, meeting the standard of no net loss of ecological function shall include avoidance and mitigation of adverse impacts during the course of**

mining and reclamation. It is appropriate, however, to determine whether there will be no net loss of ecological function based on evaluation of final reclamation required for the site. Preference shall be given to mining proposals that result in the restoration, creation, or enhancement of habitat for threatened or endangered species.

S-744 **The King County Shoreline Master Program provisions and permit requirements for mining should be coordinated with the requirements of Chapter 78.44 RCW.**

S-745 **The proposed subsequent use of mined property shall be consistent with the provisions of the shoreline environment designation in which the property is located.**

S-746 **King County shall permit mining within the active channel of a river only as follows:**

a. **Removal of specified quantities of sand and gravel or other materials at specific locations will not adversely affect the natural processes of gravel transportation for the river system as a whole;**

b. **The mining and any associated permitted activities will not have significant adverse impacts to habitat for threatened or endangered species nor cause a net loss of shoreline ecological processes and functions;**

c. **The determinations required by items 1 and 2 of this policy shall be consistent with RCW 90.58.100(1) and WAC 173-26-201(2)(a). Such evaluation of impacts should be appropriately integrated with relevant environmental review requirements of the State Environmental Policy Act and the Ecology guidelines;**

d. **In considering renewal, extension, or reauthorization of gravel bar and other in-channel mining operations in locations where they have previously been conducted, King County shall require compliance with this policy if no such review has previously been conducted. Where there has been prior review, King County shall review the previous determinations in order to ensure that current site conditions comply with the Program; and**

e. **These requirements do not apply to dredging of authorized navigation channels when conducted in accordance with WAC 173-26-231(3)(f).**

S-747 **King County shall require a shoreline conditional use permit for mining activity within a severe channel migration hazard zone located within the shoreline jurisdiction.**

12. Recreational Development

Recreational development includes uses and activities designed to allow public enjoyment and use of the water and shoreline. King County recreational planning provides for parks, trails, open space, and opportunities for both active and passive recreational use in King County.

S-748 **Recreational development is allowed in the shoreline jurisdiction and must be consistent with the shoreline environment designation in which the property is located.**

S-749 **King County shall plan to provide public recreational uses on county-owned shoreline, consistent with the goals of this chapter.**

13. Residential Development

The SMA recognizes single-family residential development as a priority use within shorelines of the state. The term “residential development” also includes attached and multifamily dwelling units as well as subdivision of shoreline land into new residential lots. In King County, single detached dwelling units are the most common shoreline development. Residential development is often fairly high density to maximize water frontage. Care must be taken to assure that shoreline residential development and the related impacts from shoreline armoring, stormwater runoff, on-site sewage disposal systems, introduction of pollutants, and vegetation modification and removal do not result in significant damage to the shoreline.

S-750 **Single-family residential development is a priority use in the shoreline jurisdiction in King County.**

S-751 **King County shall require a conditional use permit for construction or expansion of a single-family residence that is located within an aquatic area buffer in the Forestry or Natural Shoreline Environment.**

S-752 **Shoreline residential development, including accessory structures and uses, should be sufficiently set back from steep slopes and shorelines vulnerable to**

erosion so that structural improvements, including bluff walls and other stabilization structures, are not required to protect these structures and uses.

S-753 **New over-water residences, including floating homes, are not a preferred use and shall be prohibited in the shoreline jurisdiction. Existing communities of floating or over-water homes should be reasonably accommodated to allow improvements associated with life-safety matters and to ensure protection of private property rights. King County shall limit the expansion of existing floating homes, including over-water and underwater footprint, and over-water communities to the minimum necessary to ensure consistency with constitutional and other legal limitations that protect private property.**

S-754 **King County should require multi-family residential development and subdivisions within the shoreline jurisdiction creating more than four lots to provide public access.**

S-755 **King County shall require subdivisions and short subdivisions to:**

a. Be designed, configured and developed in a manner that ensures no net loss of shoreline ecological processes and functions at full build-out of all lots;

b. Prevent the need for new shoreline stabilization or flood risk reduction measures that would cause significant impacts to other properties or public improvements, a net loss of shoreline ecological processes and functions, or interfere with channel migration; and

c. Implement the provisions and policies for shoreline designations and the general policy goals of this chapter.

14. Transportation and Parking

Providing for transportation and parking is necessary to support water-dependent uses, to support the regional economy, and for access to privately owned property. However, transportation facilities should be located and designed to have the least impact on the ecological processes and functions of the shoreline. Transportation planning in shorelines should not be focused totally on automobiles, but should consider a wide range of options, including buses, light rail, commuter rail, bicycle, equestrian, and pedestrian facilities. Transportation planning can be a tool for finding opportunities to provide public access to the shorelines.

S-756 **King County shall require transportation and parking plans and projects located in the shoreline jurisdiction to be consistent with the public access policies in this chapter and environmental protection provisions.**

S-757 **Where appropriate, circulation system planning in the shoreline jurisdiction shall include systems for pedestrian, bicycle and public transportation and combining transportation uses to minimize the footprint of transportation facilities. Circulation planning and projects should support existing and proposed shoreline uses that are consistent with the King County Shoreline Master Program.**

S-758 **Transportation and parking facilities located in the shoreline jurisdiction shall be planned, located and designed to have the least possible adverse impact on unique or fragile shoreline features, not result in a net loss of shoreline ecological processes and functions or adversely impact existing or planned water-dependent uses. Where other options are available and feasible, new transportation facilities or transportation facility expansions should not be constructed within the shoreline jurisdiction.**

S-759 **Parking facilities in the shoreline jurisdiction are not a preferred use. King County shall allow parking facilities in the shoreline jurisdiction only when necessary to support an authorized use and when an alternatives analysis shows there are no feasible alternatives outside of the 200-ft shoreline jurisdiction. Parking facilities in the shoreline jurisdiction shall use Low Impact Designs, such as porous concrete and vegetated swales, and be planned, located and designed to minimize the environmental and visual impacts.**

15. Utilities

Utilities include services and facilities that produce, convey, store, or process power, gas, water, sewage, stormwater, communications, oil, or waste. Utilities that are classified as on-site utilities serving only one primary use are considered “accessory utilities” and are considered part of the primary use.

S-760 **Utility facilities shall be designed and located to assure no net loss of shoreline ecological processes and functions, preserve the natural landscape, and minimize conflicts with present and planned land and shoreline uses, while**

meeting the needs of future populations in areas planned to accommodate growth.

S-761 **King County shall allow modification of existing utility facilities and the location of new water-oriented portions of utility facilities in the shoreline jurisdiction provided that a mitigation sequence is applied (see policy S-616) and there is no net loss of shoreline ecological processes and functions. To the maximum extent practical, those parts of utility production and processing facilities that are not water-oriented, such as power plants and sewage treatment plants, shall be located outside of the shoreline jurisdiction.**

S-762 **Transmission facilities for the conveyance of services, such as power lines, cables, and pipelines, shall be located outside of the shoreline jurisdiction where feasible. Transmission facilities located within the shoreline jurisdiction shall assure no net loss of shoreline ecological processes and functions.**

S-763 **Utilities should be located in existing developed rights-of-way and corridors to the maximum extent practical.**

S-764 **Unless no other feasible alternative location exists, King County should discourage:**

a. Locating pipelines and cables in water, on tidelands or roughly parallel to the shoreline; and

b. The development of facilities that may require periodic maintenance that disrupts shoreline ecological processes and functions.

King County shall ensure that any utility facilities that are allowed do not result in a net loss of shoreline ecological processes and functions or significant adverse impacts to other shoreline resources and values.

C. Shoreline Modifications

1. General Policies Governing Shoreline Modifications

A shoreline modification is construction of a physical element, such as a dike, breakwater, dredged basin, or fill, as well as other actions such as clearing, grading, application of chemicals, or significant vegetation

removal to support or prepare for a shoreline use. These activities should be directly related to a legal shoreline use and should not be conducted for other purposes.

S-765 **King County should allow structural shoreline modifications only when necessary to support or protect a legally established structure or a legally existing shoreline use that is in danger of loss or substantial damage, or when a modification is necessary for reconfiguration of the shoreline for mitigation or enhancement purposes.**

S-766 **In order to reduce the adverse effects of shoreline modifications, King County should limit shoreline modifications in number and extent to the maximum extent practicable.**

S-767 **King County shall only allow shoreline modifications that are appropriate to the specific type of shoreline and environmental conditions for which they are proposed.**

S-768 **King County shall ensure that shoreline modifications individually and cumulatively do not result in a net loss of shoreline ecological processes and functions. In order to achieve this goal, King County shall give preference to those types of shoreline modifications that have a lesser impact on the shoreline and by requiring mitigation of identified impacts resulting from shoreline modifications.**

S-769 **Where applicable, King County shall develop regulations and impose conditions based on scientific and technical information and a comprehensive analysis of shoreline conditions for drift cells for marine waters or reaches for lakes and river and stream systems.**

S-770 **King County should plan for the enhancement of impaired shoreline ecological processes and functions where feasible and appropriate, while accommodating permitted uses. To the maximum extent practical, King County should incorporate appropriate measures to protect shoreline ecological processes and functions from the impacts of shoreline modifications.**

2. Shoreline Stabilization

Shorelines are impacted by wind and wave action, currents, tides, and flood waters, resulting in erosion of banks and shifts in channels. These impacts are natural processes that support shoreline ecological processes and functions, but they also impact human use of shorelines.

These natural processes are likely to be affected by climate change. Lowland rivers may see higher flows in the autumn and winter and mid-elevation rivers may see higher winter flows. In both cases, these changes could lead to more frequent flooding. The marine shorelines around Vashon and Maury Islands and the Duwamish Estuary may also see effects due to sea-level rise. Increased sea elevations will make development and infrastructure in low-lying areas more susceptible to flooding due to high tides and storms. Waves will encroach further onto low-lying beaches and cause greater beach erosion, threatening or damaging low-lying structures. At the same time steep slopes may receive increased moisture due to predicted changes in precipitation patterns, potentially resulting in an increase in landslides that may cause property destruction and threaten human safety.

Humans have long desired to "control" these natural processes by constructing shoreline stabilization structures. The negative side of structural solutions includes the high cost of construction, long-term cost of maintenance and repair, the false sense of security for humans relying on these structures, and the high impact to the shoreline environment. These negative impacts are likely to increase as the effects of climate change become more apparent. These impacts include:

1. Beach starvation where sediment is prevented from supplying the beach, thus impeding a dynamic process.
2. Habitat degradation, particularly through removal of shoreline vegetation.
3. Sediment impoundment where the sources of sediment are lost and longshore transport is diminished, resulting in lowering of down-drift beaches, narrowing of the high tide beach, and the coarsening of beach sediment.
4. Exacerbation of erosion as wave energy is reflected back from hard surfaces onto the beach, increasing erosion.
5. Groundwater impacts that can lead to a rise of the water table on the landward side of an erosion control structure, which results in increased pore pressures in the beach material and accelerated erosion of sand-sized material from the beach.
6. Hydraulic impacts where wave energy is reflected back onto the beach, resulting in scour lowering the beach elevation, or coarsening the beach, resulting in failure of the structure.
7. Loss of shoreline vegetation and the loss of erosion control that the vegetation provided, as well as loss of the habitat function provided by vegetation.

8. Loss of large woody debris, which plays an important role in biological diversity and habitat as well as stabilizing the shoreline.
9. Restriction of channel movement and creation of side channels, impacting recruitment of large woody debris and gravel for spawning.

As alternatives to constructing a hard-surfaced structural facility, nonstructural methods that have lesser impacts on shoreline ecological processes and functions are available. These nonstructural methods may also allow for adaptation to the effects of climate change. For example, if buildings are constructed further away from the existing water edge, beyond the range of sea-level rise, shoreline protection would be unnecessary. For most projects, a range of options is available. These include “soft” measures, such as revegetation to stabilize banks, which provide a variety of other ecological processes and functions, and "hard" measures, such as bulkheads, which often detract from or provide only limited ecological function. Shoreline stabilization options include, but are not limited to:

1. Vegetation enhancement;
2. Upland drainage control;
3. Biotechnical measures;
4. Beach enhancement;
5. Anchor trees;
6. Gravel placement;
7. Rock revetments;
8. Gabions;
9. Concrete groins;
10. Retaining walls and bluff walls;
11. Bulkheads; and
12. Seawalls.

S-771 **King County shall require shoreline stabilization to be consistent with WAC 173-26-221(5) for vegetation retention and WAC 173-26-221(2) for protection of critical areas.**

S-772 **King County shall adopt standards to first avoid then mitigate the impact to shoreline ecological processes and functions when alteration of the shoreline is allowed for the construction of single detached dwelling units and accessory structures. These standards shall address the design and type of protective measures and devices that are allowed.**

When structural shoreline stabilization is proposed to protect existing development, the following measures apply:

S-773 **King County may allow construction of new or replaced structural shoreline stabilization and flood control works to protect an existing structure if King County determines there is a documented need, including a geotechnical analysis that the structure is in danger from shoreline erosion caused by tidal action, currents or waves.**

When new development occurs within the shoreline jurisdiction, the following measures apply:

S-774 **King County shall require new shoreline development to be located and designed to avoid the need for future shoreline stabilization to the maximum extent practicable.**

S-775 **King County shall require that lots in new subdivisions and short subdivisions to be created so that shoreline stabilization will not be necessary in order for reasonable development to occur, using geotechnical analysis of the site and shoreline characteristics.**

S-776 **King County shall require new development on steep slopes or bluffs to be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis.**

S-777 **King County shall not allow new development that requires shoreline stabilization that will cause significant adverse impacts to adjacent or down-current properties and shoreline areas.**

S-778 **King County should notify all prospective developers of new development along Vashon and Maury Islands that their development may be impacted by sea-level rise and should encourage all such new development to be set back a sufficient distance to avoid the need for shoreline protection during the expected life of the development.**

New “hard” structural stabilization measures should be used as a last resort after exploring and evaluating other soft measures.

S-779 **King County shall require the use of soft methods of shoreline stabilization to the maximum extent practicable. King County shall allow new hard structural stabilization measures only as follows:**

a. To protect existing nonwater-dependent development and structures, including single-family residences, if:

1. The erosion is not the result of upland conditions, such as the loss of vegetation and drainage;

2. Nonstructural measures, such as locating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient;

3. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report submitted by a qualified specialist. The damage must be caused by natural processes, such as tidal action, currents and waves; and

4. Mitigation is provided such that the erosion control structure will not result in a net loss of shoreline ecological processes and functions.

b. To protect water-dependent development if:

1. The erosion is not the result of upland conditions, such as the loss of vegetation and drainage;

2. Nonstructural measures, planting vegetation or installing on-site drainage improvements are not feasible or not sufficient;

3. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report submitted by a qualified specialist; and

4. The erosion control structure will not result in a net loss of shoreline ecological processes and functions.

c. To protect shoreline restoration projects or hazardous substance remediation projects pursuant to RCW chapter 70.105D if:

1. Nonstructural measures, planting vegetation or installing on-site drainage improvements are not feasible or not sufficient; and

2. The erosion control structure will not result in a net loss of shoreline ecological processes and functions.

The King County shoreline jurisdiction includes a large number of shoreline stabilization structures, many of which were constructed years ago with little or no consideration of the impact on shoreline ecological processes and functions.

S-780 **An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents, tidal action, or waves.**

S-781 **King County shall require replaced shoreline protection structures to be designed, located, sized, and constructed to assure no net loss of shoreline ecological processes and functions.**

S-782 **Replacement walls or bulkheads to protect a residence shall not encroach waterward as measured at an elevation of two-feet above the current ordinary high-water mark, unless:**

a. The residence was occupied prior to January 1, 1972;

b. There are overriding safety or environmental concerns; and

c. The replacement structure shall abut the existing shoreline stabilization structure and be located on the landward side of the existing structure.

S-783 **If a net loss of ecological processes and functions associated with critical saltwater habitats will result from leaving an existing shoreline protection structure that is proposed for replacement, King County shall require the structure to be removed as part of the replacement measure.**

S-784 **King County shall encourage the use soft shoreline stabilization measures that use placement or growth of natural materials that closely resemble natural scales and configurations and that provide restoration of shoreline ecological processes and functions waterward of the ordinary high-water mark.**

S-785 **King County should encourage replaced structural shoreline stabilization located on Vashon and Maury Islands to be relocated outside of the 100-year floodplain whenever possible. The edge of the 100-year floodplain is consistent with a two-foot sea-level rise.**

King County should make decisions on shoreline stabilization measures based on technical studies and reports that objectively analyze the current conditions and the impact of the proposed stabilization

measure. A geotechnical report addressing geologic and habitat conditions developed by a qualified geologist or geotechnical engineer and habitat specialist should be a requirement of a development proposal application that includes shoreline stabilization as part of the development.

S-786 **When shoreline stabilization is proposed, King County shall require a geotechnical report to address the need to prevent potential damage to a primary structure. The report shall estimate time frames and rates of erosion and the urgency associated with the specific situation. King County should not allow hard armoring solutions, unless a geotechnical report confirms that there is a significant possibility that the structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is immediate would foreclose the opportunity to use measures that avoid impacts on shoreline ecological processes and functions. If the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, the report may still be used to justify more immediate authorization to protect against erosion using soft measures.**

The construction of shoreline stabilization measures results in impacts to the ecological processes and functions of the shoreline. The following measures should be considered to mitigate the impacts of shoreline stabilization projects.

S-788 **If structural shoreline stabilization measures are demonstrated to be necessary, King County shall:**

1. **Limit the size of stabilization measures to the minimum necessary;**
2. **Require the use of measures designed to assure no net loss of shoreline ecological processes and functions;**
3. **Require the use of soft approaches, unless they are demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.**

S-789 **King County shall ensure that publicly financed or subsidized shoreline erosion control measures do not restrict appropriate public access to the shoreline, except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to shoreline ecological processes and functions. Where feasible, King County shall require ecological restoration and public access improvements to be incorporated into the project.**

S-790 **King County shall discourage new development and redevelopment on feeder bluffs. Where a legal building lot exists and the landowner has no option to locate new development or redevelopment away from feeder bluffs and other areas that affect beach sediment-producing areas, King County shall require that they avoid, to the maximum extent practicable, and then minimize the adverse impacts to sediment conveyance systems from erosion control measures.**

S-791 **King County should prioritize feeder bluffs as areas for protection using acquisition, easement, transfer of development rights and other programs that eliminate or reduce development threats.**

Erosion is the breakdown of soil, mud, rock, and other particles by the agents of wind, water, or ice or by living organisms. These materials are moved downward or down-slope in response to gravity. Upland conditions may contribute to this on-going natural physical process and may impact the ability of people to use the shoreline. Mass wasting is the geomorphic process by which soil, mud, rock, and other particles move downslope under the force of gravity. Types of mass wasting include creep, slides, flows, topples, and falls, each with its own characteristic features. Mass wasting may occur at a very slow rate, particularly in areas that are very dry or those areas that receive sufficient rainfall such that vegetation has stabilized the surface. It may also occur at very high speed, such as in rock slides or landslides, with disastrous consequences. The desire to protect shoreline development from these impacts leads to proposals for shoreline stabilization.

S-792 **The impacts of erosion and mass wasting should be mitigated through protection of geological hazardous areas.**

3. Piers and Docks

Piers and docks are some of the most commonly requested modifications to the shorelines. Because they extend over the water, piers and docks can have a significant impact on the shoreline ecological processes and functions. Careful consideration should be given to the construction of new piers and docks, and how they are constructed in order to minimize their impacts.

S-793 **King County shall allow new piers and docks only for water-dependent uses or public access. If it is designed and intended as a facility for access to watercraft, a dock associated with a single-family residence is considered a water-dependent use. As an alternative to individual private moorage for**

residential development: mooring buoys are preferred over floats or docks and shared moorage facilities are preferred over single use moorage, where feasible or where water use conflicts exist or are predictable.

S-794 **King County shall require pier and dock construction to be limited to the minimum size necessary to meet the needs of the proposed water-dependent use.**

S-795 **King County may allow water-related and water-enjoyment uses as part of a shoreline mixed-use development on over-water structures where they are clearly auxiliary to and in support of water-dependent uses, provided the minimum size requirement needed to meet the water-dependent use is not violated.**

S-796 **King County shall allow new pier or dock construction, excluding docks accessory to single-family residences, only when the applicant has demonstrated that a specific need exists to support the intended water-dependent uses.**

S-797 **If new piers or docks are allowed, King County shall require new residential development of two or more dwelling units, subdivisions and short subdivisions to provide joint use or community dock facilities, when feasible, rather than individual docks for each dwelling unit or lot. King County shall allow only one pier or dock associated with residential development on a parcel.**

S-798 **King County shall require piers and docks, including those accessory to single-family residences, to be designed and constructed to avoid and then minimize and mitigate the impacts to shoreline ecological processes and functions. King County shall require piers and docks to be constructed of non-toxic materials. Where toxic materials, such as treated wood, are proposed, the proponent must show that no non-toxic alternative exists.**

4. Fill

Fill means the addition of soil, sand, rock, gravel, sediment, earth retaining structures, or other material to an area waterward of the ordinary high water mark, in wetlands, or on shorelands in a manner that raises

the elevation or creates dry land. Fill is not permitted within the 100-year floodplain without providing compensatory flood storage to prevent a rise in the base flood, which is a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the "100-year flood." Fill can impact shoreline ecological processes and functions, including channel migration.

S-799 **King County shall require fill to be located, designed, and constructed to protect shoreline ecological processes and functions and ecosystem-wide processes, including channel migration and side channels.**

S-800 **King County shall allow fill waterward of the ordinary high-water mark only when necessary to support:**

1. **Water-dependent use;**
2. **Public access;**
3. **Cleanup and disposal of contaminated sediments as part of an interagency environmental clean-up plan;**
4. **Disposal of dredged material considered suitable under, and conducted in accordance with, the dredged material management program of the Washington Department of Natural Resources;**
5. **Expansion or alteration of transportation facilities of statewide significance currently located on the shoreline and then only upon a demonstration that alternatives to fill are not feasible; or**
6. **Mitigation actions, environmental restoration, beach nourishment, enhancement projects; or**
7. **Flood risk reduction projects implemented consistent with the goals, policies and objectives of the King County Flood Hazard Management Plan where no reasonable alternative exists.**

S-801 **King County shall require a shoreline conditional use permit for fill waterward of the ordinary high-water mark for any use, except for projects for ecological restoration or for the maintenance, repair or replacement of flood protection facilities.**

5. Breakwaters, Jetties, Groins and Weirs

Breakwaters, jetties, groins, and weirs are all structural elements that are constructed to absorb or deflect wave action or to control excess sediment. A breakwater is an off-shore structure, either floating or not, which may or may not be connected to the shore and is designed to absorb and reflect back into the

water body the energy of the waves. A jetty is an artificial barrier used to change the natural littoral drift to protect inlet entrances from clogging by transported sediment. A groin is a barrier-type structure extending from the backshore into the water across the beach, which is constructed to interrupt sediment movement along the shore. A weir is a small dam in a stream or river to control the flow of water. Although each of these structural elements may sometimes be appropriate, they should be allowed only under limited circumstances.

S-802 **King County shall allow breakwaters, jetties, and weirs located waterward of the ordinary high-water mark only where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose.**

S-803 **Groins are prohibited except as a component of a publicly-sponsored project to protect or restore shoreline ecological processes and functions.**

S-804 **King County shall require a shoreline conditional use permit for the construction of breakwaters, jetties, groins, weirs, and similar structures, except for those structures installed to protect or restore shoreline ecological processes and functions, such as woody debris installed in streams.**

S-805 **Breakwaters, jetties, groins, and weirs shall be designed to protect critical areas and shall provide for mitigation according to the sequence in policy S-616 and defined in WAC 173-26-201 (2)(e).**

6. Beach and Dunes Management

Washington's beaches and their associated dunes lie along the Pacific Ocean coast between Point Grenville and Cape Disappointment and, as shorelines of statewide significance, are mandated to be managed from a statewide perspective by the SMA. There are no beaches and associated dunes in King County.

7. Dredging and Dredge Material Disposal

Dredging is the removal, displacement, or disposal of unconsolidated earth material such as sand, silt, gravel, or other submerged materials, from the bottom of water bodies, ditches, or natural wetlands. Long-term maintenance and support activities are also considered dredging. Dredging can cause significant ecological damage, which cannot always be avoided. Mitigation measures should be required to assure no net loss of shoreline ecological processes and functions.

King County has a channel monitoring program for King County rivers, which can be used to inform decisions on dredging activities. While only certain reaches of these rivers have been surveyed, King County recognizes the need to continue and enhance the channel monitoring program. In addition, King County should avoid development of shorelines that would require new or maintenance dredging.

S-806 **King County shall require that new development should be sited and designed to avoid, to the maximum extent practical, and then to minimize the need for new or maintenance dredging.**

S-807 **King County shall allow dredging for the purpose of establishing, expanding, or relocating or reconfiguring navigation channels and basins when necessary to assure safe and efficient accommodation of existing navigational uses. Significant adverse ecological impacts shall be minimized and mitigation shall be provided to ensure that there is no net loss of shoreline ecological processes and functions. Maintenance dredging of established navigation channels and basins should be restricted to maintaining previously dredged or existing authorized location, depth, and width.**

S-808 **King County shall not allow dredging waterward of the ordinary high-water mark for the primary purpose of obtaining fill material, except when the material is necessary for the restoration of shoreline ecological processes and functions. When allowed, the site where the fill is to be placed shall be located waterward of the ordinary high-water mark. The project must be either associated with a habitat restoration project under the Model Toxics Control Act or the Comprehensive Environmental Response, Compensation, and Liability Act, or, if approved through a shoreline conditional use permit, any other significant habitat enhancement project.**

S-809 **King County shall not allow disposal of dredge material on shorelands and in side channels within a river's channel migration zone. King County shall not allow disposal of dredge material in wetlands located within the shoreline jurisdiction. In the limited instances where it is allowed, such disposal shall require a shoreline conditional use permit.**

S-810 **King County shall require dredging to be conducted consistent with Policy RCM-3 of the 2006 King County Flood Hazard Management Plan.**

8. Shoreline Habitat and Natural Systems Enhancement Projects

Shoreline habitat and natural systems enhancement projects should be supported and coordinated with other planning processes, such as salmon conservation plans and the 2006 King Count Flood Hazard Management Plan.

S-811 **King County should allow for habitat and natural systems enhancement projects that include, but are not limited to:**

- **a. Modification of vegetation;**
- **b. Removal of nonnative or invasive plants;**
- **c. Shoreline stabilization using soft or non-structural techniques; and**
- **d. Dredging, and filling, provided that the primary purpose of such actions is clearly restoration of the natural character and shoreline ecological processes and functions of the shoreline.**

S-812 **Habitat and natural systems enhancement projects should assure that the projects address legitimate restoration needs and priorities.**

IX. Primary & Administrative Policies

A. Reservation of Right to Appeal Department of Ecology Decisions

By law, King County's Shoreline Master Program must be approved by Ecology, which has the power to reject or modify part or all of King County's SMP elements.

1. Reservation of right to submit alternate proposal to Ecology

If Ecology recommends a change to some or all of the elements in King County's SMP, King County reserves the right to submit an alternate proposal for approval.

S-901 **If the Department of Ecology recommends changes to any elements of the King County Shoreline Master Program, King County reserves the right to submit an alternate proposal to the Department for its review and approval.**

2. Appeal of Ecology's decision to reject or modify King County Shoreline Master Program.

If Ecology rejects or modifies part or all of the elements of in King County's SMP, King County reserves the right to appeal this decision, in whole or part, to the Growth Management Hearings Board and the courts.

S-902 **If the Department of Ecology rejects part or all of King County's Shoreline Master Program, or if the Department of Ecology recommends changes that are unacceptable to King County, King County reserves the right to appeal the Department's decision to the Shoreline Management Hearings Board.**

B. Posting Notice of Effective Date of King County's Shoreline Master Program and Shoreline Regulations

The King County SMP and any amendments to the SMP take effect only after approval by the Washington State Department of Ecology.

S-903 **Upon receipt of the letter from the Department of Ecology approving the King County Shoreline Master Program (SMP) or any amendments to the SMP, King County will promptly post on its website a notice that the Department of**

Ecology has taken final action and approved the SMP or SMP amendments. The notice will indicate the effective date.

C. Treaty Rights Not Affected by Shoreline Master Program

King County has sought the input of and consulted with Tribes located in and adjacent to King County when developing the SMP. However, the Shoreline Master Plan and associated shoreline regulations shall not be construed to affect any treaty rights established between the United States and the individual Tribes.

S-904 **Nothing in the King County Shoreline Master Program nor in any action taken under the Shoreline Master Program shall be construed to affect any treaty right to which the United States is a party.**

D. Power to Abate Nuisance Retained by King County and the State Of Washington

Adoption of the SMP is a requirement of the SMA. King County's compliance with this state law should not be construed in any way to limit or modify all other powers possessed by King County.

S-905 **Nothing in the King County Shoreline Master Program shall be construed to limit the power of King County or the State of Washington to abate nuisances within the shoreline jurisdiction.**

S-906 **King County specifically reserves all rights, power, and authority granted to it by law. Nothing in the King County Shoreline Master Program shall be construed in any way to limit any power or authority possessed by King County.**