DRAFT

CITY OF CARNATION

Shoreline Master Program

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City of Carnation
4621 Tolt Avenue
Carnation WA 98014

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DRAFT
CARNATION SHORELINE MASTER PROGRAM

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I. INTRODUCTION

A. WHERE TWO RIVERS MEET

The City of Carnation is located northeast of the confluence of the Tolt and Snoqualmie Rivers in the Snoqualmie River Valley of eastern King County. The Snoqualmie is a tributary to the Snohomish River, and is part of Water Resource Inventory Area (WRIA) 7. The value of Carnation's shorelines as both resource and amenity can be seen from the history of settlement in the Carnation area. The confluence of the two rivers was of great importance to the Snoqualmie Tribe, and was the location of the main village. The original European settlement of the Carnation area was also tied to the shorelines, as agricultural homesteads and logging operations made use of the river as a system of transport, and the fertile soils of the floodplain were used for dairying, hops and other crops.[1] Today, Carnation's rural appeal is still linked to conservation of its shorelines. New economic concerns—such as the development of local tourism and the regional recovery of protected fish species—require continued stewardship of shorelines as a valuable economic and ecological resource.

The first Shoreline Master Program for the City of Carnation was adopted in 1974, and since that time the City has twice worked on an update of the SMP, in 1992 and 2000. However, neither of these updates was approved by the Department of Ecology, and so the 1974 SMP has remained in effect since that time. Much has changed since 1974, and the City now plans for an Urban Growth Area (UGA) under the Growth Management Act (GMA). Carnation's UGA is approximately 1.1 square miles in size; there are 183 acres or approximately 23% of the UGA located within Shoreline jurisdiction. The acreage of shoreline jurisdiction within Carnation has roughly tripled since the adoption of the original SMP in 1974, as annexation has occurred along both rivers.

As of this Program's adoption, approximately 69.3 acres are in Park or Open Space designations which provide public access to the shoreline. The citizens of Carnation and visitors enjoy a great deal of recreational access to the water's edge, in accordance with both the intent of the Shoreline Management Act of 1971 and long-time local practice. A principal aim of this program is to recognize the importance of public access and enjoyment of our shoreline areas with respect to environmental preservation and property owner rights.

The preservation of our heritage and the safeguarding of our future compel citizens and their government to recognize local resources and development capacities, to carefully plan in the community's long-term interest and to vigorously implement that vision of the future.

This Program presents Carnation's vision of its shorelines as this City begins its second century. Shoreline jurisdiction is identified as all lands and waters that lie within 200 feet of the Snoqualmie and Tolt River ordinary high water marks; floodways and contiguous floodplains within 200 feet of such floodways; and the wetlands and river deltas associated with the rivers. Shoreline regulations apply within these areas, and shall not be applied outside them. Specific

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[1] The Tolt Historical Society, *A History of Tolt/Carnation,* second edition, November 1997.

dimension and performance standards apply to only those lot portions that lie inside the shoreline jurisdiction.

B. HISTORY AND OBJECTIVES OF SHORELINE MANAGEMENT IN WASHINGTON STATE

In 1969, the Washington State Supreme Court decided in the case of Wilbur v. Gallagher (77 Wn 2d 302), commonly known as the Lake Chelan Case, that certain activities along shorelines were contrary to the public interest. The court findings required that the public interest be represented in the proper forum for determining the use of shoreline properties. The ramifications of this decision were significant in that developers, environmentalists and other interested parties began to recognize, although probably for different reasons, the need for a comprehensive planning and regulatory Program for shorelines. Concern for fragile ecological areas increased, along with concerns regarding the rights of property ownership.

The State legislature passed into law the "Shoreline Management Act of 1971" (SMA), effective June 1, 1971, which contained the provision for both statutes to be deferred to the electorate in the November 1972 election. Most Washington voters favored both shoreline management and the legislature's alternative by an approximate 2 to 1 margin. The SMA was both initiated and ratified by the voters. It enjoyed both a popular foundation and an environmental justification.

The Act intended to protect and restore the shorelines as valuable natural resources, to foster all "reasonable and appropriate uses" of them, and to offer the public opportunities for their enjoyment. With this clear mandate, the provisions of the SMA established a planning and regulatory program.

Local governments have the primary authority under the Act for instituting a planning program and for administrating the regulatory requirements of the Act. The Department of Ecology acts to support and review this function.

C. APPLICABILITY, PROCESSES AND CONCEPTS INVOLVED WITH SHORELINE MANAGEMENT

The Shoreline Management Act covers all shorelines of the state, including "shorelines" and "shorelines of state-wide significance" (SSWS). Provisions of the Act apply to the shorelines, streambeds and waters of streams and rivers with a mean annual flow equal to or greater than 20 cubic feet per second (cfs) or more. Both the Snoqualmie and Tolt Rivers are greater than 20 cfs. The Snoqualmie River is also an SSWS because it has a mean annual flow of 1,000 cfs or greater whereas the Tolt River has a mean annual flow of less than 500 cfs. The regulations of the Act also apply to "shorelands" which include those lands extending landward for two hundred feet in all directions from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and wetlands and river deltas hydraulically associated with either river. The term "wetland" as used above is a specific SMA term that has a technical definition which is set forth in the definition section of this Program.

State regulations pursuant to the Shoreline Management Act recognize the Snoqualmie River, as an SSWS, to have especially important economic, recreational and ecological resources that

benefit Washington's citizens generally. Such shorelines of statewide significance require an enhanced level of protection and public management. Per WAC 173-26-251(2), this Program must incorporate six principles for the management of the Snoqualmie River resources, applied in the following order of preference:

- Recognize and protect the statewide interest over local interest.
- Preserve the natural character of the shoreline.
- Result in long-term over short-term benefit.
- Protect the resources and ecology of the shoreline.
- Increase public access to publicly owned areas of the shorelines.
- Increase recreational opportunities for the public in the shorelines.

The SMA sets up a process for managing development of the state's shorelines through state-monitored and locally-administered permitting programs. Both levels of government are to engage in coordinated planning and administration under the Act. Moreover, the SMA encourages citizen involvement in the creation, revision and management of Shoreline Master Programs. The success of this Program will rely on positive interaction between state agencies, city government and the people of Carnation.

Under the Act, local governments are required to prepare a detailed shoreline inventory and a Shoreline Master Program (Program) to manage shoreline development. Based upon the inventory of local shorelines, a system for categorizing various segments is established through application of shoreline environment designations. The Act specifies that Programs include policy elements that take into account economic development, public access, circulation and transportation, recreation, shoreline use, conservation and historic and cultural aspects of the shoreline area (RCW 90.58.100(2)). From these policy statements, regulations are derived which establish appropriate permitted uses and standards within each shoreline environment.

The Act requires the City to take primary responsibility for initiating and administering the regulatory program founded under this Program. The Department of Ecology is required to support the City's efforts and to review programs and permits for consistency with the Act (RCW 90.58.050).

Future developments, uses, activities or questions concerning the administration of Carnation's Shoreline Master Program, which are not specifically addressed by this document, shall be addressed through formal review and amendment of the Program. No review of such a use, activity or question shall be summarily decided in favor of any proponent due to the failure of this Program to directly address the use or question. All subsequent formal amendments will be consistent in form and intent with the Shoreline Management Act and Carnation's extant Shoreline Master Program.

D. RELATIONSHIP OF SHORELINE MASTER PROGRAMS TO OTHER REGULATORY PROGRAMS

The Carnation Shoreline Master Program is the result of a cooperative effort balancing local and statewide interests in the management and development of shoreline areas by requiring local governments to plan (via shoreline Master Programs) and regulate (via permits) shoreline

development. Local government actions are monitored by the Department of Ecology, which approves new or amended Programs, reviews substantial development permits and approves conditional use permits and variances. The Program is essentially a shoreline comprehensive plan with a distinct environmental orientation applicable to shoreline areas and customized to local circumstances. However, a Shoreline Master Program is more than a standard general plan or list of policies. This Program provides specific policies, directives and regulations to ensure that the community's vision of Carnation's shorelines is implemented and preserved. It is by definition a long-range instrument intended to guide the use of Carnation's shorelines for the next 10 to 20 years. Collectively, all local Shoreline Programs throughout the state comprise the state's Shoreline Master Program.

In addition to serving as a joint City - State plan for Carnation's shorelines, the Master Program policies are considered part of the City's Growth Management Act (GMA) Comprehensive Plan and Master Program regulations are considered part of the City's GMA development regulations. The development regulations in this Shoreline Master Program generally act as an overlay on top of the City's GMA development regulations. One key area of shoreline regulation addresses critical areas. Shorelines are not considered critical areas unless they meet the GMA definition of critical areas as adopted by Carnation. This Shoreline Master Program contains in Appendix A critical area regulations applicable only in shoreline jurisdiction that provide a level of protection to critical areas assuring no net loss of shoreline ecological functions necessary to sustain shoreline natural resources. (RCW 36.70A.480)

II. GOALS

These goals represent the broadest management principles that establish the intent behind the policies and regulations contained in this Program. Goals in the Carnation Shoreline Master Program are organized into ten program elements.

A. SHORELINE USE ELEMENT

Goal A. Establish and implement policies and regulations for shoreline use consistent with the Shoreline Management Act of 1971. These policies and regulations should ensure that the overall land use patterns along the City's shoreline areas are compatible with shoreline environment designations and will be sensitive to habitat, ecological systems, and other shoreline resources, ensuring no net loss of shoreline ecological functions.

Goal B. Ensure that planning, zoning and other regulatory and nonregulatory programs governing lands adjacent to the shoreline jurisdiction are coordinated and consistent with each other; with the provisions of this Program; and with the intents, policies and regulations of the Growth Management and Shoreline Management Acts.

Goal C. Preserve, restore and improve the quality of our shorelines such as through the Shoreline Master Program Restoration Plan, King County Flood Hazard Reduction Plan, and Watershed Resource Inventory Area plans.

Goal D. Identify and reserve shoreline and water areas with unique attributes for specific long-term uses, including agricultural, commercial, industrial, residential, recreational and open space uses.

Goal E. Ensure that shoreline uses are distributed, located and developed in a manner that will preserve or improve the health, safety and welfare of the public.

Goal F. Ensure that activities and facilities are located on the shorelines in such a manner as to retain or improve the quality of the environment as it is designated for that area.

Goal G. Ensure that shoreline uses do not unreasonably infringe upon the rights of others or upon the rights of private ownership.

Goal H. Encourage joint-use activities in proposed shoreline developments such as joint use of rights-of-way with utilities.

B. ECONOMIC DEVELOPMENT ELEMENT

Goal I. Ensure healthy, orderly economic growth by providing for those economic activities that at the same time represent assets to the local economy and result in the least possible adverse effect on the quality of the shoreline and surrounding environment.

Goal J. Develop recreational uses, activities, and developments along shorelines as an economic asset and in a manner that will enhance the public enjoyment thereof, while preserving and/or enhancing natural shoreline values and functions.

Goal K. Ensure that any economic activity taking place along the shoreline operates without harming the quality of the site's environment or adjacent shorelands.

Goal L. Encourage new shoreline uses, activities, and developments that are classified as water-dependent, water-related, or water-enjoyment uses and discourage nonwater-oriented uses, activities, and developments which are not accessory to a water-oriented use.

Goal M. Protect current commercial, industrial, horticultural, agricultural land uses and provide for new and environmentally sensitive economic development.

C. CIRCULATION ELEMENT

Goal N. Provide safe, reasonable and adequate circulation systems to shorelines where routes will have the minimum adverse impact on unique or fragile shoreline features and existing ecological systems, while contributing to the functional and visual enhancement of the shoreline.

Goal O. Locate land circulation systems as far from the shoreline as is feasible to reduce interference with either natural resources or more-appropriate shoreline uses. Where possible avoid creating barriers between adjacent uplands and the shoreline.

Goal P. Provide for alternate modes of travel with some freedom of choice and encourage multiple-use corridors where compatible. Recognize current roadways, bridges, and trails. New trails should be consistent with the City's Comprehensive Plan and Park System Master Plan.

D. CONSERVATION ELEMENT

Goal Q. Protect and preserve the resources and amenities of Carnation's shorelines for the use and enjoyment of present and future generations.

Goal R. Develop and implement management practices that will ensure a sustained yield of renewable resources of the shorelines while preserving, protecting, enhancing and restoring unique and nonrenewable shoreline resources or features, including forested areas, wetlands and wildlife habitat.

Goal S. Ensure that utilization of a resource takes place with the minimum adverse impact to natural systems and quality of the shoreline environment.

Goal T. Prevent erosion and pollution through stormwater management, grading plans, and other best management practices.

Goal U. Plan for restoration of ecological functions where they have been impaired. Reclaim and restore biologically and aesthetically degraded areas to the greatest extent possible while maintaining appropriate use of the shoreline.

Goal V. Preserve the scenic aesthetic quality of shoreline areas and vistas to the greatest extent feasible.

Goal W. Establish a threshold of no-net-loss of ecological functions necessary to sustain shoreline natural resources when considering shoreline uses and modifications.

Goal X. Recognize the Snoqualmie River as a Shoreline of Statewide Significance requiring optimum implementation of the shoreline use preferences and other requirements of the Act and this Master Program.

E. PUBLIC ACCESS ELEMENT

Goal Y. Improve public access to shoreline areas provided that private rights, public safety and the natural shoreline character are not unreasonably adversely affected.

Goal Z. Provide, protect and enhance a public access system that is both physical and visual, utilizing both private and public lands, which increases the amount and diversity of public access to the state's shorelines and adjacent areas, consistent with the natural shoreline character, private rights and public safety.

Goal AA. Integrate public access to shorelines as a part of a City public trail system.

Goal BB. Prepare and implement a comprehensive public access plan that incorporates public access into new shoreline development and unifies individual public access elements into an organized system.

F. RECREATIONAL ELEMENT

Goal CC. Provide diverse water-oriented recreational opportunities that are adequate and convenient for the area population while achieving not net loss of shoreline ecological function.

Goal DD. Ensure optimal recreational opportunities now and in the future in shoreline areas that can reasonably tolerate active, passive or contemplative uses during peak use periods achieving no net loss of shoreline ecological function, and without destroying the character of the shoreline or unreasonably infringing on privacy or property rights.

Goal EE. Integrate recreational elements into federal, state and local public access and conservation planning.

Goal FF. Encourage all agencies, including state, county, and city governments to work together to maximize use of existing public lands. Where appropriate and consistent with the City's Comprehensive Plan and Park System Master Plan, encourage federal,

state and local governments to acquire additional shoreline properties for public recreational uses.

Goal GG. Ensure existing and proposed recreational uses are of a safe and healthy nature.

G. EDUCATIONAL, HISTORIC AND CULTURAL ELEMENT

Goal HH. Protect, preserve and restore important archaeological, historic and cultural sites located within Carnation's shorelines for educational, scientific and recreational benefit of the public.

Goal II. Encourage educational projects and programs that foster a greater appreciation of the importance of shoreline management, river-oriented activities, environmental conservation and local historic connections with our rivers.

H. FLOOD HAZARD REDUCTION ELEMENT

Goal JJ. Protect the natural function and value of the floodplain where possible without compromising the safety of citizens and the viability of the City. The City of Carnation recognizes the value of the large expanse of floodplain bordering the City. The floodplain is an important habitat and wetland area, location of scenic value, floodwater storage area, and plays an important water quality role in the Valley. As a result of its importance to the region, the floodplain should be protected from incompatible encroachment, when feasible, without increasing flood potential to the City of Carnation. (Current Comp Plan Goal EE2)

Goal KK. The City shall manage water resources for multiple uses, including recreation, fish and wildlife, flood protection, erosion control, water supply, energy production, and open space. (Current Comp Plan Goal EE3)

III. GENERAL POLICIES AND REGULATIONS

General policies and regulations are applicable to all uses and activities (regardless of shoreline environment designation) that may occur along a jurisdiction's shorelines. Their importance and usefulness cannot be overstated. They affect all other more specific policies and regulations. They provide broad policies and regulations that affect all shoreline uses, activities and developments.

A. REQUIREMENTS FOR ALL SHORELINE USES, ACTIVITIES, AND DEVELOPMENTS

Policies

P1 The City should encourage those uses, activities and developments that preserve the natural amenities of the shorelines and provide public access to them.

P2 The City should discourage uses, activities and developments which have the potential to create a public nuisance due to noise, odor, inappropriate lighting, or environmental hazard.

P3 Short-term community interests, or private economic gain and convenience, should be subordinated to long-term community interests defined in the City's Comprehensive Plan, this Shoreline Master Program, Parks, Recreation, and Open Space Plans, and other adopted long-term community plans.

P4 Modification of the Tolt and Snoqualmie riverbeds should be minimized.

P5 All shoreline uses, activities and developments should conform to the policies and regulations of the Act, this Program, Carnation's Land Use Code, the Comprehensive Plan and all other municipal provisions and planning initiatives. This includes those uses, activities and developments that do not require a Shoreline Substantial Development Permit (SSDP).

P6 Each development's purpose, overall density, lot coverage and dimensions should be consistent with the public interest, the physical capabilities of the site, adjacent uses and the subject environmental designation.

P7 All uses, activities and developments permitted in the shorelines should be functionally and aesthetically compatible with, should not cause unmitigated adverse impacts to adjacent uses and environments, and should not result in a net loss of shoreline ecological functions.

P8 All shoreline uses, activities and developments should preserve the integrity and characteristics of their surrounding environment, consistent with the goals and regulations of this Master Program.

P9 Proponents should restore, replace, or mitigate for all fish or wildlife habitat damaged or degraded as a result of their project. Where applicants demonstrate that restoration is not

feasible, adverse impacts should be mitigated with the creation of in-kind habitat near the project.

P10 The appurtenances, accessory structures or related components of any development should be designed and located to functionally and aesthetically blend into the site.

P11 All development should be located and designed to minimize flood damage, erosion, increased surface runoff, degradation of water quality and other adverse environmental impacts.

P12 All development should be located and designed to prevent the need for shoreline stabilization measures and flood protection works. Development that would require such activity should be prohibited.

P13 Proposals for shoreline development should provide city staff and officials with complete and accurate site and project information necessary to make an informed decision.

P14 Property owners should inform subsequent owners of all significant obligations, sensitive areas or special characteristics associated with their property.

P15 Development should only be permitted where it is consistent with the City's Comprehensive Plan and where adequate provisions for utilities, circulation and access have been made.

P16 The application of this Program should be consistent with constitutional and other legal limitations on the regulation of private property. The Administrator should give adequate consideration to mitigation measures, dimensional variances, and other possible methods to prevent undue or unreasonable hardships upon property owners.

Regulations

R1 Except as noted within this Program, all shoreline developments not associated with a legally existing, permitted, or approved shoreline use or activity are prohibited.

R2 All shoreline uses, activities and developments shall conform to the policies and regulations of this Program, Carnation's Land Use Code, the Comprehensive Plan, and all other municipal provisions and planning initiatives. This includes those uses, activities and developments that do not require a SSDP.

R3 Through the application of the Master Program to shoreline uses, activities, and modifications, the City shall apply a performance standard of no net loss of shoreline ecological function.

R4 Development shall only be permitted where adequate provisions for utilities, circulation and access have been made.

R5 All developments, appurtenances and accessory facilities shall be arranged and designed to preserve shoreline views and to be compatible with adjacent uses and environments. All appurtenances and accessory structures shall be located as far upland as possible.

R6 Non-appurtenant accessory uses and developments shall be reasonable in size and purpose.

R7 Development shall be located and designed to avoid the need for future structural shore defense and flood protection works. Any new development that would require permanent shoreline stabilization measures or flood protection works shall be prohibited within shoreline jurisdiction.

R8 This Program generally prohibits uses, activities and developments that modify or alter water carrying capacity by realigning, straightening, filling or narrowing stream channels or the floodway. Such uses, activities and developments shall only be permitted where a project furthers a significant public interest or constitutes a watershed restoration project as defined in this Master Program.

R9 The known characteristics, locations and boundaries of the following areas and sites shall be recorded upon the face of any shoreline plat or short plat:

(a) critical areas;
(b) flood zones;
(c) archaeological, cultural and historic sites, unless the information is considered to be sensitive and confidential by the State or City;
(d) shoreline buffers and setbacks;
(e) permit conditions; and
(f) access and open space easements.

Landowners shall file these notations with the King County Assessor's Office at the time of any plat approval or prior to the sale of any lot within the platted property.

R10 The disposal of fertilizers, herbicides, or pesticides within shoreline jurisdiction is prohibited. This regulation does not prohibit the lawful use of fertilizers, herbicides, or pesticides as reasonably necessary or required for fertilization, soil improvement, or pest control.

R11 The disposal of solid waste, including, but not limited to, junk vehicles and equipment, wood, construction material, appliances, vegetation debris and brush, is prohibited within shoreline jurisdiction.

R12 The release or disposal of hazardous or dangerous wastes and chemicals, and waste handling equipment or containers, within shoreline jurisdiction is prohibited.

R13 Except where specifically authorized or provided by other provisions of this Master Program, all structures that constitute substantial development shall be set back from the

OHWM according to the distance specified in SMP Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations; and Table IV-2.

B. ARCHAEOLOGICAL, CULTURAL AND HISTORIC RESOURCES

Archaeological and historic resources, because of their finite nature, are valuable links to our past and should be considered whenever a development is proposed along the state's shorelines. Where such resources are either recorded at the Washington State Department of Archaeology and Historic Preservation (DAHP) and/or with local jurisdictions, or have been inadvertently discovered or uncovered, the following policies and regulations apply.

Policies

P17 Carnation recognizes the limited and irreplaceable nature of historic, cultural, scientific and special educational resources. The City should prevent damage to or destruction of such resources or any site identified by appropriate authorities to contain such resources.

P18 The City should protect, preserve and promote these social, cultural and economic assets.

P19 Uses, activities, and developments related to these resource sites should be regulated in order to preserve and enhance their social value.

Regulations

R14 All shoreline permits shall contain provisions which require developers to immediately stop work and notify the City, DAHP, and potentially affected tribes if any phenomena of potential archaeological interest are uncovered during excavations. In such cases, the developer shall be required to provide for a site inspection and evaluation by a professional archaeologist to ensure that all possible valuable archaeological data are properly salvaged.

R15 During construction, the applicants and/or any contractor(s) or agents performing construction or site development work shall immediately cease operation and notify the City upon discovery/disturbance of any cultural resources or archeological materials. The City will refer the owner to the appropriate state or federal agency and/or tribal authority for direction. Compliance with any such direction, including without limitation any required site monitoring, shall be at the applicants' sole expense.

R16 Significant archaeological and historic resources shall be permanently preserved for scientific study, education and public observation. When, following consultation with DAHP and affected tribes, the City determines that a site has significant archaeological, natural, scientific or historic value, no use, activity or development that would reasonably pose a threat to such value may be permitted under this Program. The City may require that the issuance or approval of use, activity, or permit be postponed in such areas to allow investigation of public acquisition potential and/or retrieval and preservation of significant artifacts.

R17 In the event that unforeseen factors constituting an emergency as defined in RCW 90.58.030 necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from the permit requirement of these regulations. The City shall notify the State Department of Ecology, the State Attorney General's Office, and DAHP of such a waiver in a timely manner.

R18 Archaeological sites located both in and outside the shoreline jurisdiction are subject to RCW Chapter 27.44 (Indian Graves and Records) and RCW Chapter 27.53 (Archaeological Sites and Resources) and shall comply with WAC Chapter 25-48 (Archaeological Excavation and Removal Permit), as well as the provisions of this Program.

R19 Archaeological excavations may be permitted subject to the provisions of this Program.

R20 The presence and location of identified historic or archaeological resources shall be considered in park, open space, public access and site planning, with access to such areas designed and managed so as to give maximum protection to the resource and surrounding environment.

C. ENVIRONMENTAL IMPACTS

The SMA is concerned with the environmental impacts that a use, activity, or development may have on the fragile shorelines of the state. Shoreline and water quality degradation caused by the introduction of contaminants such as petroleum products, chemicals, solid waste, domestic or industrial wastewater, and sediment from erosion are all issues that must be addressed.

Policies

P20 Shoreline use and development within shoreline jurisdiction should be designed, constructed, managed and operated in a manner that prevents or mitigates adverse impacts so that the resulting ecological condition is not degraded from the current condition. For each development, this means assuring no net loss of ecological functions and processes relative to the existing condition throughout the City's shoreline jurisdiction, including upland and aquatic areas.

P21 In assessing the potential for net loss of ecological functions or processes, project-specific and cumulative impacts should be considered

P22 Erosion and pollution should be prevented.

Regulations

R21 Applicants shall apply the following sequence of steps in order of priority to avoid or minimize significant adverse effects and significant ecological impacts, with a. being top priority:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action;

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
(d) Reducing or eliminating the impact over time by preservation and maintenance operations;
(e) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
(f) Monitoring the impact and the compensation projects and taking appropriate corrective measures.

R22 When reasonably feasible options or alternatives exist concerning the choice, location, construction and management of shoreline uses, activities and developments, proponents shall select the development option or alternative that least interferes with natural shoreline characteristics, functions and processes. Such characteristics and processes include, but are not limited to, flood capacity, water circulation, sand and gravel movement, natural erosion and accretion.

R23 All project proposals, including those for which a Substantial Development Permit is not required, shall comply with Chapter 43.21C RCW, the Washington State Environmental Policy Act.

R24 Projects that cause significant ecological impacts, as defined in Section VIII, Definitions, are not allowed unless mitigated according to Regulations 25 through 27 below to avoid reduction or damage to ecosystem-wide processes and ecological functions. As part of this analysis, the applicant shall evaluate whether the project may adversely affect existing hydrologic connections between streams and/or wetlands, and either modify the project or mitigate any impacts as needed. Mitigation plans may be subject to approval by appropriate state and federal agencies with jurisdiction.

R25 The City shall require mitigation measures and/or permit conditions based on the provisions of this SMP in order to mitigate impacts. In order to determine acceptable mitigation or permit conditions, the Shoreline Administrator may require the applicant to provide the necessary environmental information and analysis, including a description of existing conditions/ecological functions and anticipated shoreline impacts, along with a mitigation plan outlining how proposed mitigation measures would result in no net loss of shoreline ecological functions. If adequate mitigation is determined to be impossible, then the application shall be denied.

R26 When compensatory measures are appropriate pursuant to the mitigation in Regulation 21, preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, 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, including the Shoreline Restoration Plan, applicable to the area of impact may be authorized. Authorization of compensatory mitigation measures may

require appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions.

R27 Mitigation activities shall be monitored to determine the effectiveness of the mitigation plan. Monitoring shall be accomplished by a third party, subject to the approval of the City of Carnation with the concurrence of state and federal agencies with jurisdiction. Results of monitoring shall be publicly available. If mitigation is found to be ineffective, corrective action which satisfies the mitigation objectives will be required of the proponent.

R28 Land clearing, grading and alteration of natural drainage features and land contours or other geographic features shall be limited to the minimum necessary for an existing or approved development.

R29 Grading, excavation, upland fill, and other earth modifications shall meet City development standards to avoid adverse impacts to adjacent properties or shoreline features.

R30 Erosion and pollution during both project construction and operation shall be prevented to the greatest extent possible through the use of all reasonably feasible methods and equipment, including, but not limited to, BMPs.

D. CRITICAL AREAS

Critical areas constitute the most fragile lands that support resources that are economically and culturally important to the state under the SMA. They can be natural resources that provide fisheries habitat, for example, or hazard areas that represent a threat to the health and safety of the public, such as floodways or seismic hazard zones.

"Critical areas" shall comprise those areas with especially fragile biophysical characteristics and/or with significant environmental resources as identified in a scientifically documented inventory accomplished as part of the SEPA process or other recognized assessment. This Program recognizes critical areas to include wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, geologically hazardous areas, and frequently flooded areas. Detailed regulations for protection of these critical areas and their buffers have been incorporated into this SMP and can be found in Appendix A of this SMP.

E. FLOOD HAZARD REDUCTION

Flood hazard reduction measures are actions taken to reduce flood damage or hazard. This section applies to uses, development, and shoreline modifications that may increase flood hazards, as well as the implementation of measures to reduce flood hazards. Flood hazard reduction measures may consist of nonstructural measures, such as setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures, and storm water management programs, and of structural measures, such as dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures consistent with the National Flood Insurance Program.

Dikes and levees are earthen embankments constructed to provide flood control, water impoundment, or settling basins.

Policies

P23 Flood control measures should be sited and designed consistent with appropriate engineering principles, including guidelines of the Natural Resource Conservation Service, the U.S. Army Corps of Engineers, watershed plans, channel migration zone plans, restoration plans, critical area regulations, floodplain regulations, and stormwater management plans and regulations in order to prevent flood damage, maintain the natural hydraulic capacity of floodways, and conserve limited resources such as fish habitat, water, and soil.

P24 Flood protection measures should result in no net loss of ecological functions and ecosystem-wide processes associated with rivers and streams.

P25 Where feasible, non-structural methods to protect, enhance, and restore shoreline ecological functions and processes and other shoreline resources should be encouraged as an alternative to structural flood control works. Non-structural methods may include, but are not limited to, shoreline buffers, land use controls, use relocation, wetland restoration, dike removal, biotechnical measures, stormwater management programs, land or easement acquisition, voluntary protection and enhancement projects, or incentive programs.

P26 New or expanding development or uses in the shoreline, including subdivision of land, that would likely require structural flood control works within a river, channel migration zone, floodway, or lake should not be allowed.

P27 New structural flood control works should only be allowed in shoreline jurisdiction when it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development or mitigate or resolve existing stormwater problems, that impacts to ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, that appropriate vegetation conservation actions are undertaken, and where non-structural flood hazard reduction measures are infeasible.

P28 The City should facilitate returning river and stream corridors to more natural hydrological conditions. Unless otherwise determined infeasible by federal or state agencies with permit authority or by the Shoreline Administrator, flood control works should be bioengineered to enhance ecological functions, create a more natural appearance, improve ecological processes, and provide more flexibility for long-term shoreline management.

P29 Flood control works and shoreline uses, development, and modifications should be located, designed, constructed and maintained so their resultant effects on geo-hydraulic shoreline processes will not cause significant damage to other properties or shoreline resources, and so that the physical integrity of the shoreline corridor is maintained.

Regulations

R31 Development in floodplains shall, consistent with applicable flood hazard plans and regulations, avoid significantly or cumulatively increasing flood hazards. Development shall be consistent with this SMP, as well as guidelines of the Natural Resource Conservation Service, the U.S. Army Corps of Engineers, and King County's flood hazard management plan.

R32 For purposes of this Section only, the channel migration zone is considered to be that area mapped in Appendix B, prepared consistent with WAC 173-26-221(3)(b). Applicants for shoreline development or modification may submit a site-specific channel migration zone study if they do not agree with the mapping in Appendix B. Documentation of alternate channel migration zone boundaries must be prepared consistent with WAC 173-26-221(3)(b), and may include, but is not limited to, historic aerial photographs, topographic mapping, flooding records, and field verification.

R33 The following uses and activities may be authorized where appropriate and/or necessary within the channel migration zone (CMZ) or floodway:

(a) Actions that protect or restore the ecosystem-wide processes or ecological functions or development with a primary purpose of protecting or restoring ecological functions and ecosystem-wide processes.
(b) Existing and ongoing agricultural practices provided that no new restrictions to channel movement occur.
(c) Bridges, utility lines, public stormwater facilities and outfalls, and other public utility and transportation structures where no other feasible alternative exists or the alternative would result in unreasonable and disproportionate costs and the long-term maintenance or repair costs are not significantly different between options inside or outside of the floodway or channel migration zone. For the purposes of this section "unreasonable and disproportionate" means that locations outside of the floodway or channel migration zone would add more than 20% to the total project cost.[2] Where such structures are allowed, mitigation shall address impacted functions and processes in the affected shoreline.
(d) Repair and maintenance of an existing legally established use, provided that channel migration is not further limited, flood hazards to other uses are not increased, and significant ecological impacts are avoided.
(e) Development where structures exist that prevent active channel movement and flooding.
(f) Modifications or additions to an existing nonagricultural legal use, provided that channel migration is not further limited and that the modified or expanded development includes appropriate protection of ecological functions.

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[2] The 20% figure is based on WSDOT's practices in determining whether sidewalks will be provided with state roads. (pers. com. Paula Reeves, WSDOT, email to WAAPA list serve, April 24, 2009).

(g) Measures to reduce shoreline erosion, provided that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition, that the measures do not interfere with fluvial hydrological and geo-morphological processes normally acting in natural conditions, and that the measures include appropriate mitigation of impacts to ecological functions associated with the river or stream.

R34 New development or new uses in shoreline jurisdiction, including the subdivision of land, shall not be permitted when it would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway.

R35 New structural flood hazard reduction measures in shoreline jurisdiction shall be allowed only when it can be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development, that nonstructural measures are not feasible, that impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, and that appropriate vegetation conservation actions are undertaken consistent with SMP Section III.G, Shoreline Vegetation Conservation. Structural flood hazard reduction measures shall be consistent with the County's comprehensive flood hazard management plan.

R36 New structural flood hazard reduction measures shall be placed landward of associated wetlands and designated shoreline buffers, except for actions that increase ecological functions, such as wetland restoration; provided no other alternative to reduce flood hazard to existing development is feasible. The need for, and analysis of feasible alternatives to, structural improvements shall be documented through a geotechnical analysis.

R37 Flood hazard reduction measures shall not result in channelization of normal stream flows, interfere with natural hydraulic processes such as channel migration, or undermine existing structures or downstream banks.

R38 The removal of gravel for flood management purposes shall be consistent with SMP Section VI.D, Dredging and Dredge Material Disposal and be allowed only after a biological and geo-morphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of ecological functions, and is part of a comprehensive flood management solution.

R39 New structural public flood hazard reduction measures, such as dikes and levees, shall dedicate and improve public access pathways unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, unacceptable and un-mitigable significant ecological impacts, unavoidable conflict with the proposed use, or a cost that is disproportionate and unreasonable to the total long-term cost of the development.

R40 Roads or railroads shall be built outside the floodway except for necessary crossings. New transportation facilities shall be designed so that no significant loss of floodway capacity or measurable increase in predictable flood levels will result based on studies

submitted by applicants and approved by the responsible local government. If proposed transportation facilities are intended to secondarily provide flood control, they shall comply with policies and regulations of this section.

R41 Structural flood hazard reduction measures shall comply with the following design standards:

(a) be limited to the minimum height required to protect adjacent uses from the projected 100-year flood.
(b) shall not be constructed with material dredged from any stream, or from any wetland area.
(c) shall be set back from convex (outside) stream bends to mitigate water velocities and flood stages, and to allow normal habitat-building accretion.
(d) shall preserve normal stream meander and flood storage capacity by locating dikes and levees outside the floodway and tangent to outside meander bends.
(e) shall comprise a 1:1½ / 56° or flatter slope on the outside face.
(f) shall incorporate bioengineering techniques where feasible and shall be planted and maintained with self-sustaining native vegetation, provided such vegetation would not undermine the long-term integrity of the structure.

R42 Underground springs and aquifers shall be identified and protected.

F. PUBLIC ACCESS

Shoreline public access refers to the public's physical ability to reach and touch the water's edge and its ability to view the water and shoreline. Public access for the purpose of this section may include, but is not limited to, view corridors, public pathways and trails (including those that accommodate the disabled), bridges, street ends, picnic areas and recreational trail easements.

Policies

P30 Efforts to provide public access should be sensitive to the unique characteristics of the shoreline. Public access should preserve the natural character and quality of the shoreline.

P31 Public access should be provided as close as possible to the water's edge, provided that it does not significantly adversely affect sensitive areas.

P32 Public rights-of-way should be acquired to accommodate appropriate intensities of pedestrian access.

P33 Uses and activities on or near the shoreline should not impair or detract from the public's physical and visual access to the water.

P34 Shoreline uses, activities and developments should provide safe and convenient public access to the shorelines, unless unique or special circumstances make compliance with this policy unsafe or impractical.

P35 Public access projects should promote access for disabled persons where feasible.

P36 Publicly-owned shorelines should provide for recreational uses, activities and developments. Such areas should otherwise remain as open space areas.

P37 Public access provided by streets and other public rights-of-way should be preserved and maintained.

P38 Public access projects should be designed and constructed to preserve public safety and minimize potential adverse impacts to private property.

P39 Potential use conflicts should be minimized through clear delineation of public and private space.

P40 Public views should be preserved and enhanced. Enhancement should not include the removal of vegetation in order to create new view corridors.

P41 Proponents should not begin operation of a use, activity or development or otherwise occupy a shoreline site until all required public access facilities are ready for use.

Regulations

R43 Except as provided in Regulation 44 (below), shoreline substantial developments and conditional uses shall provide for safe and convenient public access to and along the shoreline where any of the following conditions are present:

(a) the development is proposed by a public entity or on public lands;
(b) the nature of the proposed use, activity or development will likely result in an increased demand for public access to the shoreline. Such uses, activities and developments shall include, but are not limited to, residential subdivisions;
(c) the proposed use, activity or development is not a preferred shoreline use, activity or development under the Shoreline Management Act, such as a nonwater-oriented commercial or industrial use;
(d) the public has historically and customarily enjoyed parallel access along shoreline areas within private ownership, such as along and waterward of the Hoberg Levee, despite whether such access has been granted or dedicated for public access by the landowner;
(e) the proposed use, activity or development may block or discourage use of customary and established public access paths, walkways, trails, or corridors; or
(f) the proposed use, activity or development will interfere with the public use, activity and enjoyment of shoreline areas or waterbodies subject to the public trust doctrine.

R44 An applicant shall not be required to provide public access where one or more of the following conditions apply:

(a) the proposed use, activity or development only involves the construction of four or fewer single-family or multifamily dwellings;
(b) the proposed use, activity or development only involves agricultural activities.

(c) public access is demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the shoreline environment. The proponent shall carry the burden to demonstrate by substantial evidence the existence of unavoidable or unmitigable threats or hazards to public health, safety or the environment that would be created or exacerbated by public access upon the site;

(d) the proposed use, activity or development has security requirements that are not feasible to address through the application of alternative design features or other measures;

(e) the economic cost of providing public access through an easement or other alternative pursuant to Regulation 52 below is unreasonably disproportionate to the total long-term economic value of the proposed use, activity or development;

(f) significant and unmitigable harm to the shoreline environment would be likely to result from an increase, expansion or extension of public access upon the site;

(g) the City's parks and recreation plans show no gap in public access at the property and reasonable safe and convenient public access to the shoreline exists within one-thousand (1,000) feet of the site, provided that this exception shall not apply if the total frontage of the site along the shoreline is fifteen hundred (1,500) feet or greater;

(h) public access has reasonable potential to threaten or harm the natural ecological functions and native characteristics of the shoreline; or

(i) The subject site is separated from the shoreline waterbody by other parcels, public or private improvements such as highways, railroads, or similar significant intervening improvements, and public access is not feasible.

R45 Uses, activities and developments shall not interfere with the regular and established public use of the Tolt and Snoqualmie River shorelines.

R46 Shoreline substantial development or conditional uses shall minimize impact to public views of shoreline waterbodies from public land or substantial numbers of residences.

R47 Proponents shall include within their shoreline applications an evaluation of a proposed use, activity or development's likely impact upon current public access and future demands for access upon the site. Such evaluation shall consider potential alternatives and mitigation measures to further the goals and policies of this section.

R48 Public access provided by public street terminus, public utilities and rights-of-way shall not be diminished by a proposed use, activity or development.

R49 Terminal access sites shall connect with the nearest public street.

R50 Where feasible, public access facilities shall accommodate persons with disabilities.

R51 Public access facilities required for an approved or permitted use, activity or development shall be completed prior to occupancy and use of the site or operation of the activity.

R52 Where public access is to be provided by dedication of public access easements along the OHWM, the minimum width of such easements shall be as follows:

(a) For developments directly abutting the ordinary high watermark, such public access easements shall be located to provide linear access across the site to the OHWM and along the frontage of the site, adjacent to the OHWM. The minimum width of the access easement across the property to the OHWM shall be fifteen (15) feet. The minimum width of the access easement along the frontage adjacent to the OHWM shall be twenty (20) feet.

(b) For development upon sites that do not abut the OHWM, such public access easements shall be located to provide for linear access across the site, towards the OHWM, and shall connect to any existing public easements, walkways, trails, or corridors located upon adjacent sites. The minimum width of shoreline public access easements across or through the site shall be fifteen (15) feet.

(c) A variance to the requirements of this section may be obtained pursuant to the provisions in this Master Program pertaining to shoreline variances. In the event a variance is granted, the minimum easement width shall be reduced only to the minimum extent necessary to relieve the undue or unreasonable hardship.

(d) The public easements required pursuant to this section, for the purpose of providing access across or through the site to the OHWM, shall be improved and maintained by the property owner to provide for reasonable and safe public access to the OHWM.

R53 Public access easements, trails, walkways, corridors, and other facilities may encroach upon any buffers or setbacks required under other provisions of this Master Program or the Carnation Municipal Code, provided that such encroachment does not conflict with other polices and regulations of this Master Program, and provided that no net loss of ecological function can be achieved.

R54 Signage to be approved by the Administrator shall be conspicuously installed along public access easements, trails, walkways, corridors, and other facilities to indicate the public's right of use and the hours of operation. The Proponent shall bear the responsibility for establishing and maintaining such signs.

R55 The Administrator may require the proponent to post signage restricting or controlling the public's access to specific shoreline areas. The proponent shall bear the responsibility for establishing and maintaining such signage.

R56 Public access requirements imposed pursuant to the issuance of an approval or permit under this Master Program shall run with the land and shall be enforceable against successor owners in interest. Subsequent owners shall not adversely affect or diminish the usefulness or value of the public access requirements imposed pursuant to this Master Program.

G. SHORELINE VEGETATION CONSERVATION

Vegetation management includes activities to prevent or minimize the loss of and increase the extent and viability of vegetation along or near the shoreline that contribute to the ecological functions of shoreline areas. Vegetation management activities may include the prevention or restriction of plant clearing and grading, vegetation rehabilitation, and the control of invasive

weeds and nonnative species. The intent of vegetation management is to protect and enhance the ecological functions performed by vegetation along streams, rivers, lakes, and wetlands. Vegetation management may also be undertaken to increase the stability of river banks, to reduce the need for structural shoreline stabilization measures, to improve the visual and aesthetic qualities of the shoreline, or to enhance shoreline uses. Unless otherwise stated, vegetation management does not include those activities covered under the Washington State Forest Practices Act, except for conversion to other uses and those activities over which local governments have authority.

Vegetation management involves both passive and active measures. The intent of both systems is to minimize habitat loss and the impact of invasive plants, erosion, sedimentation and flooding. "Passive" vegetation management entails the protection and enhancement of existing native plant communities along the shorelines. "Active" vegetation management involves aquatic weed control and restoration of shoreline plant communities. Restoration using soil bioengineering further prevents the effects of erosion. The following provisions apply to all shoreline uses, activities and developments, including those normally exempted from permit requirements.

Policies

P42 Native plant communities within shoreline areas should be protected and maintained, except as specifically authorized or permitted under other provisions of this Master Program.

P43 Soil bioengineering techniques should be used during shoreline restorations and other projects to prevent undue erosion, sedimentation and flooding.

P44 An aquatic weed management program should be implemented to prevent the need for active weed removal.

P45 Where necessary, active aquatic weed removal should entail the minimum action required to preserve shoreline access and prevent negative impacts on native plant communities.

P46 The City should promote community efforts to reestablish native plant species within all mandated shoreline buffers. Such efforts should include the removal of non-native, invasive or nuisance species.

P47 All clearing activities should be designed and conducted to minimize stream and wetland sedimentation, impacts to wildlife habitat, and degradation of water quality.

P48 All clearing activities should be limited to the minimum necessary to accommodate a specific permitted shoreline development. Such activities should be discouraged within the buffers this Program designates from the ordinary high water mark.

P49 Negative environmental and shoreline impacts of clearing should be avoided wherever possible through proper site planning, construction timing and practices, soil stabilization, bioengineering, and use of erosion and drainage control methods as well as adequate maintenance.

P50 Disturbed buffer areas, dedicated open space and areas not directly employed under a permitted use should be promptly restored with native vegetation after clearing and construction is completed.

P51 The clearing of vegetation should be avoided on unstable slopes or slopes in excess of a 2:1/27° gradient.

P52 Clearing activities should preserve natural diversity in vegetation species, age and cover density.

P53 Vegetation management should maintain and enhance vegetation needed to achieve the full range of ecological functions necessary for the integrity of shoreline ecosystems.

P54 Vegetation management should support the full recovery of endangered species and genetic diversity achievable through the Shoreline Management Act.

P55 Vegetation management should maintain and enhance the physical and aesthetic qualities of the natural shoreline and avoid adverse impacts to soil hydrology in order to reduce the hazard of slope failures or accelerated erosion.

P56 Through vegetation management, the City should ensure effective maintenance of vegetation in ecologically intact shoreline areas and increase the integrity of vegetation in ecologically altered shoreline areas.

P57 Vegetation management should use the most current scientific techniques to create a net increase in system-wide, as opposed to site-specific, ecological functions performed by shoreline vegetation.

P58 Where appropriate, the City should seek to preserve vegetation on undeveloped shorelines as parks or preserves.

P59 Within identified shoreline buffers, the City should require on-site vegetation enhancement, where feasible, for all nonwater-dependent development, and require suitable mitigation for all new water-dependent development.

P60 New improvements to existing residential development located within identified shoreline buffers should be restricted unless shoreline vegetation within the buffer is enhanced.

Regulations

R57 All tree clearing and vegetation removal in preparation for any allowed or permitted use, activity or development shall be the minimum necessary to accommodate the use, activity or development. Trees that shade side channels, streams, rivers, ponds and wetlands shall be retained unless the applicant demonstrates by substantial evidence that the retention of such shade trees is infeasible or constitutes a significant threat to public health and safety.

R58 Vegetation clearing and removal activities shall only be permitted in conjunction with a specific pre-existing or approved development that represents a permitted or legal existing use under this Program. Speculative clearing and grading activities are specifically prohibited.

R59 All vegetation management, preservation, and rehabilitation or enhancement activities shall be designed and implemented to ensure effective maintenance of vegetation in ecologically intact shoreline areas and increase the integrity of vegetation in ecologically altered areas. Vegetation management activities shall further be designed and implemented to achieve the following vegetation characteristics:

(a) plant species diversity;
(b) continuity of habitat and ecological processes;
(c) production of snags and downed woody debris; and
(d) diverse habitat and edge conditions.

R60 No City permit, waiver or authorization shall be issued for any shoreline project until the proponent submits adequate plans for the maintenance, preservation, rehabilitation, or enhancement, as appropriate, of vegetation 1ocated upon the development site.

R61 Any proposed use, activity or development that proposes to clear, remove or alter existing vegetation shall be required to submit a vegetation management plan. Such plan shall address:

(a) species removal and restoration;
(b) irrigation;
(c) erosion and sedimentation control; and
(d) methods of buffer protection and enhancement that are directed towards achieving the vegetation characteristics set forth in SMP Regulation 59.

R62 Wherever feasible, restoration, rehabilitation, or enhancement activities shall use plant species that are historically native to the Snoqualmie Basin.

R63 Vegetation removal or clearing activities that would likely result in significant soil erosion or in the need for structural shoreline stabilization measures shall not be permitted.

R64 The clearing of vegetation on unstable slopes or slopes in excess of a 2:1/27° gradient is prohibited.

R65 Where an approved Endangered Species Act recovery plan addressing habitat within shoreline jurisdiction has been adopted by the federal or state agency with jurisdiction, compliance with that plan shall be required for all vegetation management activities.

R66 Where appropriate, the City shall encourage, investigate and consider the dedication or acquisition of privately owned undeveloped and vegetated shoreline areas for parks, preserves or public open space.

R67 The cutting, trimming, removal or other disturbance of trees or other natural vegetation is prohibited within 50 feet of the OHWM of the Tolt and Snoqualmie Rivers, except as necessary for selective pruning of trees for safety and view protection. The Administrator may waive this prohibition where the proponent demonstrates by substantial evidence that a waiver is necessary to prevent a significant threat or harm to the public health, welfare, or safety. The Administrator shall maintain a written record of each waiver granted. The record shall enumerate the specific activities allowed, and the basis therefore.

R68 All approved vegetation management activities shall be conditioned to minimize stream and wetland sedimentation, potential adverse impacts to fish and wildlife habitat, and degradation of water quality. Such conditions shall address, but are not limited to, the following:

(a) site planning and configuration;
(b) construction timing and practices;
(c) erosion and drainage control measures; and
(d) the availability of bioengineering alternatives.

R69 Soil bioengineering techniques shall be used during the restoration of any disturbed or degraded shoreline area. All such projects shall use native plant materials of a diversity and type similar to those that originally occupied the site. Projects to restore areas cleared of non-native species shall rely upon adjacent native plant communities and the historic record when determining the appropriate native replacement species.

R70 The use of commercial nursery stock to restore disturbed or degraded shoreline areas shall emulate the structure and diversity of pre-existing vegetation to the extent reasonably feasible.

R71 Noxious weed removal shall be scheduled and conducted in a manner that minimizes any disruption or potential disruption to fish, wildlife, or habitat.

R72 Aquatic weed control shall only be permitted where the presence of weeds will adversely affect native plant communities, fish and wildlife habitats, or an existing water-dependent recreational use. Aquatic weed control efforts shall comply with all applicable laws and standards.

R73 Manual or mechanical control of aquatic weeds shall not require a Shoreline Substantial Development Permit, provided the activity does not disturb benthos or channel sediment.

R74 All vegetation material and debris generated by aquatic weed control measures shall be collected and disposed of outside of the shoreline jurisdiction at an appropriate, prearranged upland location.

R75 The use of herbicides to remove noxious aquatic plants shall only be permitted as a conditional use in all shoreline environments. In addition to the general criteria for conditional use approval, the proponent shall demonstrate by substantial evidence that no feasible alternatives to chemical control exist. The application of herbicides shall be

conditioned in a manner to minimize damage to beneficial or non-harmful native vegetation.

R76 Mechanical brush and vegetation control shall be preferred over herbicide use in the shoreline jurisdiction.

R77 Upon the completion of every project, disturbed buffer areas, dedicated open space, and areas not directly employed under a permitted use shall be immediately restored to their original condition with self-sustaining native vegetation. Under limited circumstances, these areas may be revegetated using other species as specified in City plant lists.

R78 Replanted areas shall be maintained as necessary to ensure that vegetation is fully reestablished within three years, and shall be monitored for five years.

R79 Normal nondestructive pruning and trimming of vegetation for safety and view protection purposes shall not be subject to these clearing and grading regulations. In addition, clearing by hand-held equipment of invasive nonnative shoreline vegetation or plants listed on the state Noxious Weed List is permitted in shoreline locations if native vegetation is promptly reestablished in the disturbed area.

R80 Vegetation, retention walls or other satisfactory erosion prevention measures shall be installed along the perimeter of any area on which vegetation clearing and grading activity occurs. Such measures shall be designed to avoid or eliminate erosion and sedimentation impacts, both during initial development activities and over time. Natural-appearing and self-sustaining control methods such as vegetation are preferred over structural methods like retaining walls.

R81 Shoreline buffers have been established in Appendix A, Critical Areas Regulations, for the Snoqualmie and Tolt Rivers as follows, and will be managed as specified in this section of the SMP and in Appendix A:

(a) Snoqualmie River: 115 feet measured horizontally from the ordinary high water mark.
(b) Tolt River: 100 feet measured horizontally from the edges of its channel migration zone. The floodway for the Tolt River as mapped by FEMA on map 53033C0418G and 53033C0419G, December 6, 2001 shall be used as a surrogate for the channel migration zone. If the floodway is mapped differently in the future by FEMA, the map with the largest area mapped as floodway shall be used as a surrogate for the channel migration zone.

R82 Vegetation clearing, removal, or alteration within any shoreline buffer shall be discouraged and the applicant shall demonstrate by substantial evidence that such activities within a shoreline buffer are necessary to accommodate an allowed or permitted use, activity or development and that avoidance is not feasible.

R83 Uses that shall be allowed or permitted in shoreline buffers include public access and water-oriented recreation, water-dependent uses, and projects that result in improvements to shoreline buffer functions or processes.

R84 For all shoreline environment designations, the following restrictions shall apply:

(a) new development or significant alteration of the shoreline buffer that would reduce the capability of the vegetation to achieve its ecological functions shall not be permitted unless those impacts can be mitigated.
(b) The subdivision of property in a configuration that will require significant vegetation removal within the shoreline buffer shall be prohibited. Each new property parcel must be able to support its intended development on land outside of the shoreline buffer.

R85 For shorelands used for agricultural practices, new or additional uses, activities, and development that are not existing and ongoing agriculture shall be subject to the following requirements:

(a) such uses, activities, and development shall be allowed or permitted in a manner to ensure maintenance of ecological functions.
(b) Vegetation enhancement shall be required where the shoreline has been ecologically degraded.
(c) If the new use, activity, or development is more intensive than the existing and ongoing agriculture, no significant vegetation removal, development, or grading shall occur in the shoreline buffer except as necessary to accommodate low-intensity water-dependent uses and public access that sustains ecological functions.

R86 For shoreline properties within areas planned for residential development, the following requirements shall apply:

(a) Development that would significantly reduce the ecological functions performed by vegetation in the shoreline buffer shall be prohibited.
(b) Alteration or disturbance of the shoreline buffer shall be limited to the minimum necessary to accommodate the permitted development.
(c) Where the dimensions of existing platted lots are not sufficient to accommodate development of a permitted use without encroaching upon the shoreline buffer, adequate mitigation shall be used to avoid significant adverse impacts to vegetation.

R87 For shoreline properties with existing residential uses located within a shoreline buffer, the following shall apply:

(a) New development, structural additions, or significant vegetation removal that would significantly reduce ecological functions within the buffer shall be prohibited.
(b) Reconstruction or additions to structures within an existing approved footprint may be allowed.
(c) New development within the buffer may be allowed where vegetation is enhanced.

R88 For shoreline properties planned for commercial or industrial uses, activities, or developments, the following shall apply to any designated shoreline buffer:

(a) Vegetation protection or rehabilitation, where vegetation has been degraded or removed, shall be required as a permit condition for nonwater-dependent uses, and mitigation of vegetation impacts shall be required for water-dependent uses.
(b) Proponents for nonwater-dependent uses shall demonstrate, by substantial evidence, that vegetation management measures will contribute to increasing ecological functions.

H. SIGNS

A sign is defined as a device of any material or medium, including structural component parts, which is used or intended to be used to attract attention to the subject matter for advertising, identification or informative purposes.

Policies

P61 Signs should be designed and placed so that they are compatible with existing shoreline land and water uses.

P62 Signs should not block or otherwise interfere with visual access to the water or shorelands.

P63 The design of signs should not impact automobile safety or the visual aesthetics of adjacent properties.

P64 The use of signs should serve as an accessory use to a permitted shoreline uses, activities or development.

P65 Signs should be permanent.

Regulations

R89 Except as noted within this Program, signs posted on local shorelines shall conform to the standards established in the Carnation Municipal Code. All sign code standards applied on public rights-of-way shall also apply to public and private shoreline access ways.

R90 Sign plans and designs shall be submitted for approval at the time of shoreline permit review.

R91 One unlighted sign identifying the premises on which it is located, or the occupant of those premises, shall be permitted upon issuance of the building permit.

R92 All signs shall be located to preserve vistas, viewpoints and visual access to the shoreline.

R93 No signs shall be posted over water except as required for public safety or as authorized or required by federal, state, or local laws and regulations in association with transportation and utility facilities.

R94 Signs shall not extend over any public access way except as required for public safety or as authorized or required by federal, state, or local laws and regulations.

R95 Signs shall not be painted on or attached to any rock or tree.

R96 Where temporary signs are allowed or permitted under this program, such temporary signs shall be removed within ten (10) days of the expiration of the use, activity or development for which the temporary sign has been allowed.

R97 Pre-existing signs that do not conform to this Program shall be non-conforming and discontinued or removed as soon as practicable under the non-conforming provisions of this Program.

R98 The following types of signs are permitted in all shoreline environments provided that the regulations of this section regarding size, bulk, dimensions, design, and location are observed:

(a) highway and railroad signs necessary for operation, safety and direction;
(b) signs associated with a permitted use by private not-for-profit or public organizations;
(c) on-site signs directly related to a permitted shoreline use or development;
(d) off-premise, free standing public signs that provide rudimentary community information and directions.
(e) national, state and institutional flags;
(f) temporary decorations customary for special holidays and similar public events; and
(g) temporary directional signs for public events, provided these are removed no later than ten (10) days following the event.

R99 The following types of signs are prohibited in all shoreline environments:

(a) commercial signs other than those used solely to identify a permitted on-site use, activity or development;
(b) spinners, streamers, pennants, flashing lights and other animated signs used for any commercial purposes;
(c) signs implementing mechanical or, electrical means to display their message, including but not limited to internally-lit signs;
(d) any signs within 200 feet of the OHWM that significantly impair visual access to the Tolt and Snoqualmie Rivers; and
(e) off-site signs except as required for public safety or as authorized or required by federal, state, or local laws and regulations.

I. WATER QUALITY

Water quality is affected in numerous ways by development and human occupation of shoreline areas. Increases in impermeable surfaces cause higher levels of stormwater discharge. That added discharge increases stream bank erosion. Higher levels of suspended solids, heavy metals, household wastes and excess nutrients enter nearby water bodies. Increased nitrogen and phosphorous levels depress levels of dissolved oxygen below the requirements of aquatic species. Poorly managed development cumulatively degrades water quality, thereby threatening public health, wildlife and water-dependent economic interests.

A variety of uses and modifications potentially impact water quality. Protection of the state's associated waters and shoreline water quality requires broadly applicable land use policies and regulations.

Policies

P66 All shoreline uses, activities, and developments should be located, designed, constructed and maintained to minimize adverse impacts on water quality and fish and wildlife resources.

P67 The City should require reasonable buffers and other measures to protect and preserve water quality.

P68 All stormwater runoff should be treated on-site to prevent adverse impacts to off-site waterbodies.

P69 Sanitation works, utilities and waste handling facilities should be developed and regulated to prevent any waste or hazardous substance from entering the Tolt and Snoqualmie Rivers.

P70 Storm drainage facilities should be separated from sewage disposal systems.

Regulations

R100 The location, design, construction and management of all shoreline uses, activities, and developments shall protect the quality and quantity of surface and ground water adjacent to the site. All such activities shall adhere to the guidelines, policies, standards and regulations of applicable water quality management programs and related regulatory agencies.

R101 Surface water runoff and stormwater shall be treated, controlled and released in a manner to prevent significant increases in the nature and quantity of surface stormwater runoff from a particular site. Surface stormwater runoff shall be treated and released in a manner to avoid adverse impacts on receiving water quality and adjacent properties. All shoreline uses, activities, and developments shall utilize best management practice (BMP) measures to treat, control, and release surface stormwater runoff. Such measures include but are not limited to the use of dikes, catch basins or settling ponds, oil/water

separators, grassy swales, interceptor drains, fugitive dust controls and landscaped buffers.

R102 All surface water runoff and stormwater runoff shall be treated at its site of origin.

R103 Solid and liquid wastes and untreated effluents shall not be allowed to enter any body of water or to be discharged onto land. Stormwater and other effluent from residential, commercial, and industrial uses shall meet the minimum acceptance standards for discharge as established by federal, state, or local laws and regulations. Where such laws or regulations are inconsistent, the standard or regulation that most restricts pollutant levels shall apply.

R104 The release of oil, chemicals or hazardous materials onto land or into the water is prohibited, except as authorized or permitted by local, state, or federal laws and regulations. Equipment for the transportation, storage, handling or application of such materials shall be maintained in safe and leak-free condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

R105 Storm drainage facilities shall be separated from sewage disposal systems.

R106 Shoreline uses, activities, and developments shall be designed, constructed, operated, and conditioned to ensure adequate mitigation of any reduction in water quality resulting from erosion.

R107 Shoreline uses, activities, and developments shall be designed, constructed, operated, and conditioned to preserve and, where possible, provide for increases in floodway and wetland runoff storage capacity.

R108 The discharge of silt into waterways shall be minimized during construction.

R109 The creation or expansion of impervious surfaces shall be minimized to reduce stormwater runoff peaks.

R110 All uses, activities, and developments that create new or expanded impervious surfaces shall provide adequate facilities to prevent any resulting increase in surface water runoff and the contamination of nearby streams. Uses, activities, and developments shall be required to use the best available stormwater detention and treatment technologies, and shall conduct appropriate maintenance to ensure the proper function of such facilities over time.

R111 The release of hazardous or dangerous chemicals or wastes, including agricultural chemicals such as fertilizers and pesticides, into waterbodies, wetlands, or aquifer recharge areas shall be prevented to the maximum extent possible. The proponent shall demonstrate that adequate provisions have been made for stage or phase of the design, construction, or operation of a permitted use, activity or development to satisfy this requirement.

R112 All shoreline uses, activities, and developments shall comply with all applicable federal, state, and local requirements for stormwater treatment, detention, and control, including but not limited to the latest City-adopted version of the Washington Department of Ecology Stormwater Management Manual for Western Washington.

IV. SHORELINE JURISDICTION AND ENVIRONMENT DESIGNATION POLICIES AND REGULATIONS

A. SHORELINE JURISDICTION

As defined by the SMA of 1971, shorelines include certain waters of the state plus their associated "shorelands." At a minimum, the waterbodies designated as shorelines of the state are streams whose mean annual flow is 20 cfs or greater, lakes whose area is greater than 20 acres, and all marine waters. Shorelands are defined as:

> *"those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 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…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… Any City or county may also include in its master program land necessary for buffers for critical areas (RCW 90.58.030)"*

In the City of Carnation and its urban growth area (UGA), the Snoqualmie River and the Tolt River are the only waterbodies that meet the criteria for shoreline waterbody designation. Because of the presence of floodways and floodplains farther than 200 feet from the ordinary high water mark of those waterbodies, shoreline jurisdiction extends upland beyond the minimum 200 feet required by State law to encompass the full extent of the floodway and up to 200 feet of adjacent floodplain.

B. ENVIRONMENT DESIGNATIONS

The effective planning and management of shoreline resources requires that specific policies and use regulations are uniformly applied within physically similar shoreline areas. It also requires authorities to recognize that dissimilar areas need different levels and types of regulation. Local jurisdictions must periodically inventory and categorize shoreline areas in order to implement an effective Shoreline Master Program.

State guidelines recommend that local plans within urban growth areas classify shoreline areas into Natural, Urban Conservancy, Shoreline Residential, High Intensity, and Aquatic environments based on physical capacities, biological sensitivities, patterns of existing development and the jurisdiction's goals for development. Communities may specify other classes of designated environments, so long as they are warranted by local circumstances and satisfy the intent of the SMA. This Program uses all five of the recommended environment classifications. Carnation's community view encompasses each of these designations, but minimizes the intensive urban uses associated with higher intensity designations. The specific characteristics of each environment classification, and how each relates to Carnation's local circumstances, will be explained in the following subsections.

The following provisions discuss Natural, Urban Conservancy, Shoreline Residential, High Intensity and Aquatic environment designations as they apply under this Program. Each environment subsection begins with a statement of purpose, followed by a list of criteria for designating shoreline areas under the given classification. Management policies then provide a basis for specific development standards, and for determining which uses are appropriate within the subject environment. A map of the environment designations can be found in Appendix C.

Specific development regulations for each environment follow the management policies. Not all regulations applicable to Carnation's shorelines will be listed here. Others will be promulgated in separate sections of this Program, Carnation's municipal code and city ordinances. State and federal statutes and regulations will also have authority. When any number of such regulations vary or seem to conflict, the most restrictive shall apply. No regulation shall be interpreted or implemented in such a way as to conflict with the goals, objectives and policies of the Shoreline Management Act or this Program. No shoreline regulation shall be construed to lessen the requirements of any other city ordinance or regulation.

This section concludes with two regulatory matrices that summarize development standards and use priorities for each environment designation. The uses, activities, and developments allowed or conditionally permitted in each environment designation are summarized in Table IV-1. Additional setback, buffer, and other dimensional requirements are summarized in Table IV-2.

C. NATURAL ENVIRONMENT

Statement of Purpose

The Natural environment is intended to preserve and enhance those shoreline areas that are relatively free of human influence or that include intact or minimally degraded natural shoreline functions intolerant of human use. These systems require that only very low intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes.

Criteria for Designation

A Natural environment designation should be assigned to shoreline areas if any of the following characteristics apply:

R113 The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety;

R114 The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity; or

R115 The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest.

Management Policies

P71 Any use, activity or development that would substantially degrade the ecological functions or natural character of a Natural shoreline area should be prohibited.

P72 Limited access should be permitted for scientific, historic, educational, conservation and low-intensity water-oriented recreational access uses, provided that no significant adverse ecological impact on the area will result.

P73 New development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions should not be allowed. Subdivision of property in a configuration that, to achieve its intended purpose, will require significant vegetation removal or shoreline modification that adversely impacts ecological functions should be prohibited. That is, each new parcel must be able to support its intended development without significant ecological impacts to the shoreline ecological functions.

D. URBAN CONSERVANCY ENVIRONMENT

Statement of Purpose

The purpose of the "Urban Conservancy" environment is to protect and restore ecological functions of open space, floodplain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.

Criteria for Designation

Assign an Urban Conservancy environment designation to shoreline areas appropriate and planned for development that is compatible with maintaining or restoring the ecological functions of the area, that are not generally suitable for water-dependent uses, and that lie in incorporated municipalities and urban growth areas if any of the following characteristics apply:

R116 They are suitable for water-related or water-enjoyment uses;

R117 They are open space, floodplain or other sensitive areas that should not be more intensively developed;

R118 They have potential for ecological restoration;

R119 They retain important ecological functions, even though partially developed; or

R120 They have the potential for development that is compatible with ecological restoration.

Management Policies

P74 Uses that preserve the natural character of the area or promote preservation of open space, floodplain or sensitive lands either directly or over the long term should be the primary allowed uses. Uses that result in restoration of ecological functions should be

allowed if the use is otherwise compatible with the purpose of the environment and the setting.

P75 Standards should be established for shoreline stabilization measures, vegetation conservation, water quality, and shoreline modifications that ensure that new development does not result in a net loss of shoreline ecological functions or further degrade other shoreline values.

P76 Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.

P77 Water-oriented uses should be given priority over non-water-oriented uses.

E. SHORELINE RESIDENTIAL ENVIRONMENT

Statement of Purpose

The purpose of the "Shoreline Residential" environment is to accommodate residential development and appurtenant structures that are consistent with this Shoreline Master Program. An additional purpose is to provide appropriate public access and recreational uses.

Criteria for Designation

R121 Assign a Shoreline Residential environment designation to shoreline areas that are predominantly single-family or multifamily residential development or are zoned and platted for residential development:

Management Policies

R122 Standards for density or minimum frontage width, setbacks, lot coverage limitations, buffers, shoreline stabilization, vegetation conservation, critical area protection, and water quality shall be set to assure no net loss of shoreline ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.

R123 Multifamily and multi-lot residential and recreational developments should provide public access and joint use for community recreational facilities.

R124 Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.

R125 Commercial development should be limited to water-oriented uses

F. HIGH INTENSITY ENVIRONMENT

Statement of Purpose

The purpose of the "High Intensity" environment is to provide for high-intensity water-oriented commercial, transportation, and industrial uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.

Criteria for Designation

R126 Assign a High Intensity environment designation to shoreline areas within incorporated municipalities and urban growth areas if they currently support high-intensity uses related to commerce, transportation or navigation; or are suitable and planned for high-intensity water-oriented uses.

Management Policies

P78 First priority should be given to water-dependent uses over other uses. Second priority should be given to water-related and water-enjoyment uses. Nonwater-oriented uses should not be allowed except as part of mixed-use developments supporting water-dependent uses. Nonwater-oriented uses may also be allowed in limited situations where they do not conflict with or limit opportunities for water-oriented uses or on sites where there is no direct access to the shoreline.

P79 Full utilization of existing urban areas should be achieved before further expansion of intensive development is allowed. Reasonable long-range projections of regional economic need should guide the amount of shoreline designated High Intensity.

P80 Policies and regulations shall assure no net loss of shoreline ecological functions as a result of new development. Where applicable, new development shall include environmental cleanup and restoration of the shoreline to comply with any relevant state and federal law.

P81 Where feasible, visual and physical public access should be required as provided for in SMP Section III.F.

P82 Aesthetic objectives should be actively implemented by means such as sign control regulations, appropriate development siting, screening and architectural standards, and maintenance of natural vegetative buffers.

G. AQUATIC ENVIRONMENT

Statement of 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.

Criteria for Designation

R127 Assign an "Aquatic" environment designation to lands waterward of the ordinary high water mark.

Management Policies

P83 Over-water structures should only be allowed for water-dependent uses, public access or ecological restoration.

P84 The size of new over-water structures should be limited to the minimum necessary to support the structure's intended use

P85 In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple use of over-water facilities should be encouraged.

P86 All uses, activities, and developments using navigable waters or their beds should be located and designed to minimize interference with surface navigation; to consider the impacts to public views; to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent upon on migration; and to avoid salmonid spawning habitat and significant rearing habitat.

P87 Uses, activities, and developments that adversely impact the ecological functions of critical freshwater habitats should not be allowed except where necessary to achieve the objectives of the Shoreline Management Act, and then only when their impacts are mitigated according to the sequence described in SMP Section III.C as necessary to assure no net loss of ecological functions.

P88 Shoreline uses, activities, and developments should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

H. SHORELINES OF STATEWIDE SIGNIFICANCE

State regulations designate the Snoqualmie River shoreline as a shoreline of statewide significance (≥ 1,000 cubic feet per second). Any shoreline thus designated is deemed important to the entire state. Because these shorelines represent a major resource from which significant numbers of Washington's citizens derive benefit, this jurisdiction gives preference to uses that favor long-range state goals and support the overall public interest. The Administrator shall apply each of the following policies when considering permits for any project within Carnation's shoreline of statewide significance.

Policies (in order of preference)

P89 Recognize and protect the statewide interest over local interest.

(a) Solicit comments and opinions from groups and individuals representing statewide interests by circulating the Program, and any amendments thereof affecting shorelines of statewide significance, to state agencies, adjacent

jurisdictions, citizens advisory committees, tribes, local officials and statewide interest groups.

(b) Recognize and take into account state agencies' policies, programs and recommendations in developing and administering use regulations and in approving shoreline permits.

(c) Solicit comments, opinions and advice from individuals with expertise in geology, limnology, aquaculture and other scientific fields pertinent to shoreline management.

P90 Preserve the natural character of the shoreline.

(a) Designate and administer shoreline environments and use regulations to minimize damage to the shoreline environment and ecology resulting from human use, activity and development within shoreline areas.

(b) Upgrade and redevelop those areas of intensive development to accommodate future growth before allowing high intensity uses to extend into low-intensity use or underdeveloped areas.

(c) Protect and preserve the existing diversity of vegetation and habitat functions and values, wetlands, and riparian corridors associated with shoreline areas.

(d) Provide for review and approval of subsequent use before commercial timberland is converted to a new use to ensure adequate buffers and appropriate site design.

P91 Result in long-term over short-term benefit.

(a) Prioritize long-term social benefits and the prevention of costly impairments of the natural shoreline over short-term economic gain or convenience of development.

(b) In general, preserve resources and values for future generations and restrict development that would irretrievably damage shoreline resources.

(c) Actively promote aesthetic considerations when contemplating redevelopment of existing facilities, new development or general enhancement of shoreline areas.

P92 Protect the resources and ecology of the shoreline.

(a) Minimize development activities that will interfere with the natural functioning of shoreline ecosystems. Such activities include, but are not limited to, those that alter shoreline stability, drainage, aesthetic values and water quality.

(b) All shoreline development should be located, designed, constructed and managed to prevent disturbances of, and adverse impacts on, spawning areas, nesting and rearing sites, migratory routes, general habitat and other wildlife resources.

(c) Shoreline development should not disturb shoreline materials such as bank substrate, soils, beach sands and gravel bars. Gravel mining should be prohibited in shoreline areas.

(d) Preserve environmentally sensitive wetlands as open space and encourage restoration of presently degraded wetland areas.

P93 Increase public access to publicly owned areas of the shoreline.

(a) Prioritize the development of paths and trails along the shorelines and the connection of these facilities with developed upland parking.
(b) Enhance access by locating development landward of wetlands.
(c) Prohibit public access onto areas where the environment, ecology, or ecosystems is likely to be threatened or harmed by human use, activity or development.

P94 Increase recreational opportunities for the public on the shoreline.

(a) Encourage the development of recreational facilities along the shoreline.
(b) Ensure that lodging and related activities are placed upland of the floodway.
(c) Provide for nonmotorized access to the shoreline.

P95 Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

I. SHORELINE ENVIRONMENT DESIGNATION INTERPRETATION

R128 Any areas within shoreline jurisdiction that are not mapped and/or designated due to minor mapping inaccuracies in the lateral extent of Shoreline Jurisdiction from the shoreline waterbody related to site-specific surveys of ordinary high water mark are automatically assigned the category of the contiguous waterward shoreline environment designation provided the error does not extend onto a new parcel.

R129 All other areas that were not mapped in shoreline jurisdiction, but which do meet criteria in SMP Section IV.A, Shoreline Jurisdiction shall be assigned an Urban Conservancy designation until the shoreline can be redesignated through a SMP Amendment.

R130 Property shown in shoreline jurisdiction that does not meet the applicability criteria in SMP Section IV.A, Shoreline Jurisdiction shall not be subject to the requirements of this SMP. The actual location of the OHWM must be determined at the time a development is proposed. Such determinations are valid for five years.

R131 In the event of an environment designation mapping error, the Shoreline Administrator shall use the environment designation criteria contained in SMP Sections IV.C through IV.G to establish the appropriate shoreline environment designation. Appeals of such interpretations may be filed pursuant to SMP Section VII, Shoreline Permits, Procedures, and Administration.

J. PERMITTED USES AND DEVELOPMENT STANDARDS

Permitted Uses

R132 Table IV-1 indicates which shoreline activities, uses, developments and modifications may be allowed or are prohibited in shoreline jurisdiction within each shoreline environment designation. Activities, uses, developments, and modifications identified as "Permitted Uses" require a Shoreline Substantial Development Permit or a Shoreline Exemption, and those identified as "Conditional Uses" require a Shoreline Conditional

Use Permit per SMP Section VII, Shoreline Permits, Procedures, and Administration. Activities, uses, developments, and modifications identified as "Prohibited" are not allowed.

R133 Accessory uses shall be subject to the same shoreline permit process as its primary use.

R134 Where there is a conflict between the chart and the written provisions in this SMP, the written provisions shall apply.

R135 Authorized uses and modifications are only allowed in shoreline jurisdiction where the underlying zoning allows for it and subject to the policies and regulations of this SMP.

R136 A use is considered unclassified when it is not listed in Table IV-1 or identified in SMP Section III, General Policies and Regulations; Section V, Shoreline Use Policies and Regulations; or SMP Section VI, Shoreline Modification Policies or Regulations. When not otherwise prohibited, the Shoreline Administrator may interpret that an unclassified use is similar to a listed use, and may review the use according to the permit type of the most similar use, or as a conditional use, if the permit type of similar uses is unclear. In the Natural environment, all shoreline uses, activities and developments not identified in Table IV-1 or the listed SMP sections as an allowed or conditional use, activity or development are prohibited.

R137 If any part of a proposed activity, use, modification or development is not eligible for exemption per Section VII, then a Shoreline Substantial Development Permit or Shoreline Conditional Use Permit is required for the entire proposed development project.

TABLE IV-1: SHORELINE ENVIRONMENTS USE AND MODIFICATION TABLE

Shoreline Use and Modification	Natural	Urban Conservancy	Shoreline Residential	High Intensity	Aquatic
Agricultural Activities	X	P	P	P/C[1]	X
Agricultural-Commercial	X	P	P	P	X
Aquaculture (commercial)	X	C	X	P	P
Aquaculture (non-commercial)	X	P	P	P	P
Boating Facilities	X	C	C	C	C
Breakwaters, Jetties and Groins	X	X	X	X	X
Commercial (water-oriented)	X	C	P[3]	P	X
Commercial (non water-oriented)	X	C	P[3]	P	X
Dredge Material Disposal [4]	C[6]	C[6]	C[6]	C[6]	C[6]
Dredging	NA	NA	NA	NA	P
Educational, Cultural, Religious, Philanthropic, and Social Development (ECRPS)	X	C	X	P	X

Shoreline Use and Modification	Natural	Urban Conservancy	Shoreline Residential	High Intensity	Aquatic
(non water-oriented)					
ECRPS (water-oriented)	X	P	C	P	X
Forest Practices	X	X	X	X	X
Fill (waterward of the OHWM)	N/A	N/A	N/A	N/A	P/C[8]
Grading and Upland Fill (landward of the OHWM)	C	P	P	P	NA
In-Stream Structures	N/A	N/A	N/A	N/A	P/C[7]
Industrial	X	X	X	P	X
Mining	X	X	X	X	X
Parking [2]	P/C	P/C	P/C	P/C	P/C
Recreational (water-oriented and accessory non water oriented)	P/C[5]	P	P	P	C
Recreational (nonwater-oriented as primary use)	X	C	C	P	X
Residential	X	P	P	P	X
Scientific and Conservation (water-oriented)	P	P	P	P	P
Scientific and Conservation (nonwater-oriented)	X	C	C	P	X
Shoreline Stabilization	C	C	NA	C	C
Transportation [2]	P/C	P/C	P/C	P/C	P/C
Utilities [2]	P/C	P/C	P/C	P/C	P/C

Key: P = Permitted as a Shoreline Substantial Development Permit or Exemption; C = Shoreline Conditional Use Permit; X = Prohibited; N/A = Non-Applicable

[1] Existing agricultural activities are not subject to the SMP. New agricultural activities require a conditional use permit.

[2] Primary parking facilities and primary transportation facilities require a Shoreline Conditional Use Permit. Primary municipal water and sewer lines require a Shoreline Substantial Development Permit; other primary utilities require a Shoreline Conditional Use Permit. New accessory parking, accessory transportation, and accessory utilities shall be subject to the permit type of the primary use. Expansions of accessory parking, accessory transportation, and accessory utilities require a Shoreline Substantial Development Permit unless otherwise exempt.

[3] Permitted only as an allowed home occupation in accordance with the Carnation Land Use Code.

[4] Dredge disposal is prohibited in channel migration zones and wetlands. See Section VI.D for additional limitations.

[5] Trails and trailheads are permitted with a Shoreline Substantial Development Permit. Other recreational uses or activities require a Shoreline Conditional Use Permit.

[6] Dredge material disposal only allowed by Shoreline Conditional Use Permit for environmental restoration purposes. All other dredge material disposal is Prohibited.

[7] In-stream structures that support water-dependent uses, public access, shoreline stabilization, or other specific public purposes require a Shoreline Conditional Use Permit. In-stream structures proposed for the purpose of

protecting or restoring ecological functions or processes are permitted with a Shoreline Substantial Development Permit. Repairs and maintenance of existing in-stream structures are allowed with a Shoreline Exemption if the criteria for exemption are met. In-stream structures proposed for all other purposes are prohibited.

[8] Fill in the Aquatic environment for purposes of shoreline restoration is allowed with a Shoreline Substantial Development Permit. All other fills are only allowed with a Shoreline Conditional Use Permit.

Development Standards

R138 To preserve the existing and planned character of the shoreline consistent with the purposes of the shoreline environment designations, development standards are provided in Table IV-2 and IV-3. In addition, shoreline developments shall comply with all other dimensional requirements of the Carnation municipal code.

R139 When a development or use is proposed that does not comply with the dimensional performance standards of this SMP not otherwise allowed by administrative reduction or administrative modification, such development or use can only be authorized by approval of a Shoreline Variance.

TABLE IV-2 SHORELINE DEVELOPMENT STANDARDS MATRIX BY USE ENVIRONMENT

Standard	Natural	Urban Conservancy	Shoreline Residential	High Intensity	Aquatic
Minimum Lot Width (feet) – Single Family	75	75	50	25	Not applicable
Lot area per Dwelling Unit (square feet) - Multifamily	Not applicable	Not applicable	1800	1800	Not applicable
Building Height Maximum (feet)	35	35	35	35-40 [a]	35
Shoreline Buffer (feet)	See Appendix A, Section 1.500				
Side Yard Minimum Distance from property line to structure (feet)	20	20	10	5	5
Impervious Surface Maximum (percent of lot area)	10%	20-50%[b]	60%	75%	Not applicable

[a] Residential and mixed use development is subject to a maximum of 35 feet. Industrial development that meets the following criteria may exceed 35 feet to a maximum of 40 feet as follows: The development will not cause an obstruction of view from

public parks or substantial number of residences. The applicant shall demonstrate through photographs, videos, photo-based simulations, or computer-generated simulations that the proposed development will obstruct less than 30% of the view of the shoreline enjoyed by a substantial number of residences on areas adjoining such shorelines within 1,000 feet of the property.

[b] Lots greater than 1 acre are subject to a 20% impervious limit and lots less than 1 acre are subject to a 50% impervious limit.

TABLE IV-3: SUMMARY OF BULK AND DIMENSIONAL STANDARDS

Regulation	Dimensional Standard or Requirement
Appendix A, 1.300.C	Wetland Buffers: 200' – 300' Category I; 100'- 200' Category II; 50' – 100' Category III; 35'- 50; Category IV.
R44	Public access not required if existing public access within 1,000' feet of development site, except where frontage exceeds 1,500' feet along OHWM
R52	Public access across site to OHWM requires minimum width of 15'; access adjacent to OHWM requires minimum width of 20'
R64	No clearing upon slopes in excess of 2:1/27 degree gradient.
R67	Clearing prohibited within 50' of OHWM of Tolt/Snoqualmie Rivers, except as necessary for safety and view protection.
Appendix A, 1.500.C	Shoreline buffer 115' on Snoqualmie River, 100' from edge of channel migration zone (2001 FEMA floodway) on the Tolt River
R155	Application of fertilizers, herbicides, or pesticides in connection with agricultural uses prohibited in floodway or within 100' of OHWM unless allowed by federal or state rules and regulations in accordance with best available science.
R156	Aerial spraying of fertilizers, pesticides or herbicides is prohibited over the aquatic environment, wetlands, within the floodway, or within two hundred (200) feet of the OHWM.
R164	Aquaculture structures requiring grading or fill in excess of 125 cu. yds. are prohibited.
R176	Storage of chemicals or wastes in connection with commercial uses prohibited in floodway and requires 200' setback from OHWM.
R210	Fertilizers, pesticides used in connection with recreational uses prohibited within 100' of OHWM
R242	Bridges must provide for 6' of freeboard above the 100-year flood level.
R244	All cut and fill slopes necessary for the development of transportation facilities shall be designed at a 1:1½ / 56° or lesser angle of repose.
R283	Equipment and material storage areas, and staging areas in connection with in-stream structures require minimum 200' setback from OHWM.
R290	Launch ramps may only be constructed where less than 25 degree gradient within 25' of OHWM; Not more than 50 cu.

Regulation	Dimensional Standard or Requirement
	yds. of fill allowed.

V. SHORELINE USE POLICIES AND REGULATIONS

BACKGROUND AND PURPOSE

The use policies and regulations apply to specific shoreline use categories, providing a greater level of detail in addressing shoreline uses and their impacts. Use policies establish the shoreline management principles and regulations applicable to each use category and serve as a bridge between program goals and the regulations that follow. Use regulations set physical development and management standards for each specific type of use.

The purpose of this section is to implement the following principles, and the regulations contained herein should be interpreted and applied to further these principles:

(a) Give preference to those uses that are consistent with the control of pollution and prevention of damage to the ecological functions, or are unique to or dependent upon uses of the state's shoreline areas.

(b) With respect to the development of property, to protect the public's health, safety, and welfare, as well as the land and its vegetation and wildlife, and to protect property rights while implementing the policies of the Shoreline Management Act.

(c) Reduce use conflicts by including provisions to prohibit or apply special conditions to lower priority uses. In implementing this provision, priority shall be given first to water-dependent uses, then to water-related uses and water-enjoyment uses.

A. AGRICULTURE

While the GMA addresses lands of long-term commercial significance, the SMA (the Act) addresses the use of agriculture generally without reference to its term or significance. Agricultural uses exist within the City of Carnation and associated UGA shoreline jurisdiction. Agricultural uses, particularly agricultural tourism uses are expected to continue to play an important part of the City of Carnation's economy in the future. When consistent with definitions, this Master Program does not require modification of or limit agricultural activities occurring on agricultural lands as of the date of the Master Program. In addition to allowing current agricultural activities to continue, this section addresses new agricultural activities on land not meeting the definition of agricultural land, conversion of agricultural lands to other uses, and other development on agricultural land that does not meet the definition of agricultural activities.

Policies

P96 Existing agricultural activities should be recognized as an important economic asset to the community.

P97 New agricultural uses and expansions of existing uses in shoreline jurisdiction should be designed consistent with this Program to minimize impacts to shoreline environments.

P98 The creation of agricultural land by diking, draining, or filling wetlands should be prohibited.

P99 Farm management techniques, operations, and control methods should protect the productivity of the land base by maintaining or improving soil quality and minimizing soil losses through erosion in accordance with applicable State and Federal guidelines.

P100 Agricultural lands should be separated from water bodies or wetlands by vegetative buffers. The size and composition of such buffers should be established by the use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern and they should be maintained to minimize bank erosion and sedimentation, protect and enhance water quality, and preserve habitat for fish and wildlife.

P101 Appropriate farm management techniques should be utilized to prevent fertilizer and pesticide contamination of nearby water bodies and adverse effects on plant, fish and animal life.

P102 Fertilizer and pesticide use, retention and storage ponds, and other activities that have the potential to adversely impact water quality should be mitigated through the implementation of best management practices, and buffers and setbacks established through the use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern. Animal feed lots are prohibited.

P103 Cooperative arrangements should be encouraged between farmers and public recreation agencies to allow public use of shorelines where it does not conflict with agricultural operations.

P104 Commercial uses and activities which are related to agriculture, tourism, and recreation should be allowed and should protect and be aesthetically compatible with the scenic beauty and historic value of the shoreline. Structures should not adversely impact the enjoyment of adjacent shoreline uses, activities, and developments and should protect and preserve natural areas and systems of geological, ecological, biological or cultural significance.

Regulations

R140 Pursuant to RCW 90.58.065, the provisions of this SMP do not limit or require modification of agricultural activities on agricultural lands, as defined herein, as of the date of adoption of this Master Program.

R141 A Substantial Development Permit shall be required for all agricultural development not specifically exempted by the provisions of RCW 90.58.030(3)(a)(vi) or development that does not meet the definition of agricultural activities.

R142 Master Program provisions shall apply in the following cases:

(a) new agricultural activities on land not meeting the definition of agricultural land;
(b) expansion of agricultural activities on non-agricultural lands;
(c) conversion of agricultural lands to other uses;
(d) other development on agricultural land that does not meet the definition of agricultural activities; and
(e) agricultural development and uses not specifically exempted by the Act.

R143 Agricultural-commercial uses are allowed where specified in environment designations indicated in Chapter IV and when consistent with commercial use standards in Section V.C.

R144 New non-agricultural activities proposed on agricultural lands shall be consistent with the environment designation and use table as well as other applicable shoreline use standards, for example Commercial or Industrial.

R145 Except where specifically authorized or provided by this Master Program, agricultural structures shall be set back from the OHWM as provided in SMP Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations. In addition, runs, kennels, accessory buildings, and other structures for the housing and care of animals shall be set back a minimum of fifty feet (50') from any property line.

R146 Agricultural development shall conform to applicable state and federal policies and regulations including but not limited to the following:

(a) Erosion control guidelines and standards of the Soil Conservation Service and U.S. Department of Agriculture;
(b) Feedlot control guidelines of the U.S. Environmental Protection Agency;
(c) Washington Pesticide Application Act (Chapter 17.21 RCW);
(d) Washington Pesticide Act (Chapter 15.57 RCW);
(e) Intrastate Water Quality Standards (Chapter 372.64);
(f) Interstate Water Quality Standards (Chapter 372.12);
(g) State Board of Health Water Supply Rules and Regulations;
(h) Cooperative Extension Service Guidelines for Agriculture.

R147 Keeping of animals shall conform to the Carnation Municipal Code requirements and any applicable county, state, or federal requirements

R148 Flood shelter pads for livestock or other animals shall comply with the applicable provisions of shoreline vegetation management, flood hazard reduction, and critical area regulations in Section III and Appendix A of this Program.

R149 Agricultural uses and development in support of agricultural uses shall be located and designed to assure no net loss of ecological functions and no significant adverse impact on other shoreline resources and values.

R150 A buffer of permanent native vegetation shall be maintained between cropland or pasture and adjacent waters or wetlands. The plant composition and width of the buffer shall be based upon the most current, accurate, and complete scientific and technical information

available that is applicable to the issues of concern and management practices adopted by the applicable state agencies necessary to preserve the functions and qualities of the shoreline environment. In riparian corridors with priority species, the buffer composition and width shall be sufficient to ensure no net loss of habitat viability. The buffer shall be sufficient to adequately retard surface runoff and siltation. Proponents shall submit a map of all such buffers before initiating use of new or redeveloped planting or grazing sites.

R151 Agricultural operators shall prevent damage to stream banks and water bodies due to concentrated livestock activity by providing:

(a) suitable bridges, culverts or ramps for stock crossing;
(b) ample upland supplies of tanked and clean fresh water for stock; and
(c) fencing or other controls to prevent bank compaction, bank erosion or damage to buffer vegetation.

R152 Agricultural uses and activities shall prevent and control erosion of soils and bank materials within shoreline areas. They shall minimize siltation, turbidity, pollution and other environmental degradation of watercourses and wetlands.

R153 Agricultural chemicals shall be applied in a manner to prevent their direct runoff into water bodies, wetlands or aquifer recharge areas.

R154 The application and use of fertilizers, pesticides, and manure shall be conducted in such a manner as to prevent the degradation of water quality.

R155 The application of agricultural fertilizers, herbicides, pesticides or animal waste shall be prohibited within 100 feet of OHWM, except where the proponent demonstrates by the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern that application closer to the OHWM will cause no adverse environmental impacts and is in compliance with all applicable local, state, and federal laws and regulations

R156 Aerial spraying of fertilizers, pesticides or herbicides is prohibited over the aquatic environment, wetlands, within the floodway, or within two hundred (200) feet of the OHWM.

R157 The discarding or final disposal of pesticides, farm wastes, chemicals, fertilizers and associated containers and equipment within shoreline jurisdiction is prohibited. However, organic wastes may be used for fertilization or soil improvement.

R158 The diversion of water for use in agriculture shall only take place in accordance with the water right procedures as established by State and Federal laws and regulations.

B. AQUACULTURE

At present, there are no aquaculture uses within the City's shoreline jurisdiction or that of its associated UGA. However, there may be instances in the future in which aquaculture,

particularly that associated with a restoration project, may be proposed and found to be appropriate for the shoreline jurisdiction. These goals and regulations address conditions under which aquaculture may be appropriate. Aquaculture is a preferred water-dependent use and should be encouraged within specific constraints to protect the water ecology.

Policies

P105 Significant aquaculture use and activity is generally incompatible with the land use patterns and the physical environment within Carnation's shoreline jurisdiction. However, small-scale aquaculture for personal subsistence, enjoyment, or restoration and conservation is a preferred use.

P106 Priority should be given to aquaculture uses in areas having a high potential for such uses.

P107 Aquaculture should not be permitted in areas where it would degrade the natural ecology of the shoreline or significantly conflict with navigation and other water-dependent uses.

P108 Adequate consideration should be given to the potential adverse impacts of aquacultural development upon the physical environment, public access and other land and water uses. Suitable mitigation measures should be required to address such potential adverse impacts.

P109 Aquaculture should not be allowed in:

(a) areas that do not have the resource capacity or environmental tolerance for the type of aquaculture proposed.
(b) areas where the design or placement of aquaculture facilities would substantially degrade the aesthetic qualities of the shoreline or be significantly incompatible with adjacent uses or activities.
(c) areas where aquaculture activities would degrade surface water quality.

P110 Aquaculture projects should be limited in size and scale to protect the shoreline natural functions and ecology.

P111 Aquaculture projects should incorporate adequate measures to prevent release of non-native species in the shoreline environment, as well as prevent the spread of disease from reared stock to native wildlife.

Regulations

R159 Non-commercial aquaculture undertaken for conservation or habitat restoration purposes is a preferred use within Carnation's shorelines. Allowed fisheries enhancement uses shall include hatcheries, rearing ponds, spawning channels, water diversion structures, and groundwater wells, provided that their construction does not result in a net loss of ecological function. Commercial aquaculture that can meet performance standards and that is compatible with the intent of the use environment is allowed.

R160 Proponents of an aquaculture use or activity shall supply, at a minimum, the following information in their application for shoreline permit(s):

(a) species to be reared;
(b) aquaculture method(s);
(c) anticipated use of any feeds, pesticides, herbicides, antibiotics, vaccines, growth stimulants, anti-fouling agents or other chemicals, and their predicted impacts;
(d) harvest and processing method and timing;
(e) method of waste management and disposal;
(f) best available background information and probable impacts on water quality, biota, and any existing shoreline or water uses.
(g) method(s) of predator control;
(h) a description of the proposed use of lights and noise-generating equipment, and an assessment of adverse impacts upon surrounding uses; and
(i) other pertinent information as required by the City.

R161 Aquacultural activities shall meet all applicable federal, state and county standards and regulations.

R162 No garbage, wastes or debris shall be allowed to accumulate upon the site of any aquaculture use or activity, nor discharged to any waterbody regulated by this SMP.

R163 No pesticides, herbicides, antibiotics, vaccines, growth stimulants, anti-fouling agents or other chemicals shall be used until approved by all appropriate state and federal agencies. Those agencies shall include, but shall not be limited to, the Washington State Departments of Fish and Wildlife, Agriculture, and Ecology, and the U.S. Food and Drug Administration. Evidence of such approval shall be submitted to the City.

R164 Aquacultural activities that require grading or fill in excess of 125 cubic yards shall not be allowed in shoreline jurisdiction.

R165 Aquaculture structures and equipment that come in contact with the water shall contain no substances that are toxic to aquatic life, and aquaculture activities that would degrade water quality shall be prohibited.

R166 Aquaculture activities shall be subject to conditioning and requirements for mitigation to ensure that it does not result in a net loss of ecological function.

R167 Aquaculture projects shall be located in areas that do not impact navigation, public access, or normal public use of the water.

C. COMMERCIAL DEVELOPMENT

The City's shoreline jurisdiction includes existing commercial uses, and areas designated for future commercial uses. The policies and regulations of commercial development within the shoreline jurisdiction help address the preferences for water-oriented commercial uses, and conditions and siting criteria for commercial development within shoreline jurisdiction.

Commercial uses commonly associated with agricultural activities are addressed under agriculture in Section V.A.

Policies

P112 Preference is given to water-dependent uses and then to water-related and water-enjoyment commercial uses over nonwater-oriented commercial uses.

P113 No commercial development should be allowed within, or adversely impact critical areas.

P114 Accessory uses and structures should be designed and located to blend into the site as much as practical. Such uses and structures should be located as far upland as possible.

P115 Appropriate practices and methods should be utilized in connection with commercial uses and activities to prevent the contamination of nearby water bodies and any potential adverse impacts to plant, fish and animal life.

P116 Commercial uses should provide for suitable public access to the shoreline and shoreline ecological rehabilitation.

Regulations

R168 The City shall require and utilize the following information in its review of all commercial proposals:

(a) any water dependent, water-related, or water-oriented aspect of the proposed commercial use or activity;
(b) the relationship of the proposed commercial use to agricultural activities or recreational activities;
(c) proposals and options designed to enhance compatibility with the shoreline environment and adjacent uses;
(d) provisions for public and private visual and physical shoreline access, to include a list of alternative access strategies;
(e) provisions to prevent adverse environmental impacts; and
(f) provisions to provide for shoreline ecological rehabilitation.

R169 Commercial structures shall be set back from the OHWM as provided in SMP Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations.

R170 Commercial development shall be designed and maintained in a manner compatible with the character and features of surrounding areas. The City may prescribe and modify project dimensions, screening standards, setbacks, or operation intensities to achieve this purpose.

R171 Any commercial loading and service areas shall be located upland of the commercial activity. Provisions shall be made to provide for adequate setbacks and screening for such areas to minimize aesthetic impacts and avoid degradation of water quality.

R172 Commercial uses shall provide for suitable measures to rehabilitate and enhance the shoreline ecology as a condition of approval.

R173 Commercial uses shall provide for public access as a condition of approval, unless such public access is demonstrated by the proponent to be infeasible or inappropriate for the shoreline pursuant to Section III.F.

R174 Water-dependent, and then water-related, and water-enjoyment commercial uses shall have priority over all other commercial uses, developments, and activities.

R175 Nonwater-oriented commercial uses shall be prohibited, unless the proponent provides for public access and shoreline ecological enhancement, and at least one of the following criteria is met:

(a) The commercial use is part of a mixed-use project that includes water-dependent uses.
(b) Navigability is severely limited at the proposed site.
(c) The commercial use provides a significant public benefit with respect to the objectives of the Shoreline Management Act.
(d) The commercial use is physically separated from the shoreline by another property or public right-of-way.

R176 The storage of potentially hazardous or dangerous substances or wastes is prohibited in the floodway or within 200 feet of the OHWM, whichever boundary extends farthest landward.

R177 Development shall be located, designed, and constructed in a manner that assures no net loss of shoreline ecological functions and without significant adverse impacts to other preferred land uses and public access features

D. INDUSTRIAL DEVELOPMENT

The City's shoreline jurisdiction includes existing industrial uses that provide jobs and economic development for the Carnation community. With the exception of one small area, most of the existing industrial uses are located in the outer portion of the shoreline jurisdiction, separated from the river by park land. The City plans for continuation of existing industrial uses along with infill industrial development within portions of the shoreline jurisdiction. The industrial development policies and regulations provide guidance for appropriate siting and conditions applied to industrial uses within the shoreline jurisdiction.

Policies

P117 Water-dependent and then water-related industrial uses are preferred uses in the High Intensity environment over nonwater-oriented industrial uses.

P118 Where permitted, the Administrator should ensure that industrial development conforms to and preserves the character of adjacent uses and environments.

P119 Industrial development should not be located in shoreline areas with severe biophysical limitations unless no other feasible option is available.

P120 Industrial development should be designed and constructed in a manner that prevents significant adverse impacts to the shoreline areas.

P121 New industrial development should make adequate provisions for public access and shoreline ecological rehabilitation.

P122 Industrial development should protect and be aesthetically compatible with the scenic beauty and historic value of the shoreline. Structures should not adversely impact the enjoyment of adjacent shoreline uses, activities, and developments.

P123 Industrial developments within the shorelines should protect and preserve natural areas and systems of geological, ecological, biological or cultural significance.

P124 No industrial development should be allowed within, or adversely impact, critical areas.

P125 Industrial structures shall be set back from the OHWM as provided in Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations. Accessory uses and structures should be designed and located to blend into the site as much as practical. Such uses and structures should be located as far upland as possible.

P126 Appropriate practices and methods should be utilized in connection with industrial uses and activities to prevent the contamination of nearby water bodies and any potential adverse impacts to plant, fish and animal life.

Regulations

R178 Industrial activities are permitted uses within the high intensity environment. Industrial uses and activities are prohibited in all other environments.

R179 All applications for industrial projects shall provide:

(a) a statement demonstrating the water-dependent, water-related, or water-oriented aspect or component of the use or activity;
(b) a statement demonstrating that the proposed use or activity is compatible with the shoreline environment and adjacent uses;
(c) adequate provisions for public and private visual and physical shoreline access unless demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the shoreline environment, to include a list of alternative access strategies; and
(d) adequate provisions for shoreline protection and rehabilitation.

R180 Water-dependent, and then water-related industrial uses shall have priority over nonwater-oriented industrial uses, developments, and activities.

R181 Nonwater-oriented industrial uses shall be prohibited, unless the proponent provides for public access and shoreline ecological enhancement, and at least one of the following criteria is met:

(a) The industrial use is part of a mixed-use project that includes water-dependent uses.
(b) Navigability is severely limited at the proposed site.
(c) The use provides a significant public benefit with respect to the objectives of the Shoreline Management Act.
(d) The industrial use is physically separated from the shoreline by another property or public right-of-way.

R182 No new structural shoreline stabilization measures shall be allowed.

R183 The Administrator shall condition operational intensities, screening requirements, setbacks, and other project elements as necessary to preserve the character of the City's shorelines.

R184 All loading and service areas shall be located upland of the activity. Loading and service areas shall be screened from adjacent uses to protect the aesthetics of the shoreline.

R185 The proponent shall demonstrate by use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern that appropriate practices and methods will be utilized in connection with industrial uses and activities to prevent the contamination of nearby water bodies and any potential adverse impacts to plant, fish and animal life.

R186 Development shall be located, designed, and constructed in a manner that assures no net loss of shoreline ecological functions and without significant adverse impacts to other preferred land uses and public access features.

R187 Industrial development and redevelopment shall be encouraged to locate where environmental cleanup and restoration of the shoreline area can be incorporated.

E. RESIDENTIAL DEVELOPMENT

Existing and planned single-family and multifamily residential uses are found in portions of the City's shoreline jurisdiction. This Program recognizes that residential development can have significant adverse impacts on the physical shoreline character, access, habitats and water quality through cumulative impacts from shoreline stabilization, stormwater runoff, septic system failure, introduction of pollutants, and vegetation removal. The following provisions seek to control those impacts that arise from use conflicts, uncontrolled clearing and grading, storm water runoff, septic system failure, and inappropriate building densities.

Policies

P127 Residential development should be identified as a priority use only when developed in a manner consistent with the control of pollution and prevention of damage to the natural environment.

P128 Residential development should be located and constructed in a manner that assures no net loss of shoreline ecological functions.

P129 Residential development should provide for outdoor recreation, protect natural features, preserve views and minimize use conflicts through the use of lot dimensions, setbacks, shoreline buffers, and open space between structures.

P130 Residential development should be designed to preserve existing shoreline vegetation, control erosion, protect water quality, and enhance shoreline aesthetic characteristics, views, and normal public use of the shoreline.

P131 New residential development, including accessory uses and structures, should be sufficiently set back from steep slopes, channel migration zones, and eroding shorelines so that structural improvements are not necessary.

P132 Residential development should be located and designed so as to prevent the creation of new residential lots that will require shoreline stabilization or deviation from vegetation management and water quality standards.

Regulations

R188 The following residential and residentially-related uses and activities are permitted subject to the appropriate regulations of this program:

(a) single-family and multifamily units when allowed consistent with the Carnation Land Use Code;
(b) private non-commercial conservatories and greenhouses;
(c) operation of fixed electrically-powered mechanical equipment to provide utilities service to a private building site;
(d) non-commercial private off-street parking and garages;
(e) non-commercial family recreational areas;
(f) non-commercial kennels, stables and pastures (subject to regulations presented in SMP Section V.A);
(g) small-scale agricultural activities for immediate personal or family subsistence or enjoyment (subject to regulations within SMP Section V.A); and
(h) accessory buildings.

R189 Single-family residential development is a preferred use when it is developed in manner consistent with control of pollution and prevention of damage to the natural environment.

R190 Residential development shall be located and constructed to result in no net loss of shoreline ecological function. No net loss of shoreline ecological functions shall be

assured through application of shoreline buffers specified in SMP Section III.G., Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations to avoid future stabilization, buffers, density, shoreline stabilization, and on-site sewage disposal.

R191 Within all environments where residential development is permitted, all surplus shoreline areas remaining after the subdivision and creation of residential lots shall be designated open space, and shall not be further developed for any use but low-intensity recreation. Clearing and grading within such open space is prohibited unless the proponent demonstrates that such activity is necessary to achieve a significant public interest.

R192 The City shall require storm drainage and treatment facilities consistent with City stormwater standards and Section III.I of this Program. Drainage facilities shall be separate from sewage disposal and transport facilities and shall use best management practices to prevent uncontrolled and untreated direct entry of surface water runoff into adjacent waters. Storm drainage facilities may include, but not be limited to retention ponds, vegetated swales and artificial wetlands. Storm water treatment and control methods shall not cause adverse impacts on receiving waters or wetlands.

R193 All residential development shall be located or designed in such a manner as to prevent measurable degradation of water quality from stormwater runoff. Adequate mitigation measures shall be required and implemented where there is the reasonable potential for such adverse effect on water quality.

R194 Lots for residential use shall have a maximum density consistent with the Carnation Land Use Code.

R195 Lot averaging or similar techniques shall not cause the density of development within shoreline lot areas to exceed the standards established by this Program. Where other density regulations and this Program conflict, the most restrictive on development shall apply.

R196 All primary residential structures, and garages and driveways, shall be set back consistent with the shoreline buffer and critical area regulations of this Program established in Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations and consistent with the Land Use Code.

R197 Residential development shall be prohibited in, over, or floating upon the water.

R198 The use of flood control measures, shoreline protection measures, or bulkheading to create or protect new residential lots shall be prohibited.

R199 Those appurtenances, accessory uses, and facilities which service a residential structure but do not enhance the enjoyment of the shoreline (such as driveways, garages, parking areas) shall be located landward of the residential structure. Those which do enhance enjoyment of the shoreline (such as pools, decks, and other hobby or recreational structures) may be located next to or waterward of the residential structure.

R200 New multi-unit residential development, including duplexes, fourplexes, and the subdivision of land into five or more lots shall make adequate provisions for public access consistent with the regulations set forth in SMP Section III.F.

R201 All new residential development shall be required to meet the vegetation management provisions contained in Section III.G, Shoreline Vegetation Conservation.

R202 All new residential development shall connect with the sewer system.

F. EDUCATIONAL, CULTURAL, RELIGIOUS, PHILANTHROPIC AND SOCIAL (E.C.R.P.S.) DEVELOPMENT

Although there is no existing E.C.R.P.S. development within the City's shoreline jurisdiction, this Master Program includes policies and regulations that allow for future E.C.R.P.S. uses in appropriate shoreline environments in a manner that recognizes the similarity of their impacts and conditions as commercial uses.

Policies

P133 E.C.R.P.S. development has the same potential for adverse impacts as commercial development. Therefore, the policies and regulations provided for those types of development should be equally applied to E.C.P.R.S. development.

Regulations

R203 The regulations governing commercial development shall be equally applied to E.C.R.P.S. development according to the nature, type, and intensity of the proposed use or development. E.C.R.P.S. structures shall be set back from the OHWM as provided in Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations.

R204 E.C.R.P.S. development shall be allowed or conditionally permitted, as the case may be, within each environmental designation where commercial development is allowed or conditionally permitted.

G. RECREATIONAL DEVELOPMENT

Recreational development provides opportunities for the refreshment of body and mind through forms of play, sport, relaxation, amusement or contemplation. The City's shoreline jurisdiction includes existing areas designated for passive recreational activities such as hiking, photography, sightseeing and fishing, as well as areas designated for active or more intensive uses such as parks, campgrounds, and ball fields. This section applies to both publicly and privately owned shoreline facilities intended for use by the public or a private club, group, association or individual.

Policies

P134 The coordination of local, state and federal recreation planning should be encouraged to allow for mutual satisfaction of recreational needs. Shoreline recreational developments should be consistent with growth projections and level of service standards established in the comprehensive plan and all other applicable park, recreation and open space plans.

P135 The location and design of shoreline recreational developments should relate to local population characteristics, density and special activity demands. Acquisition priorities should consider these needs, demands and special opportunities, as well as access where planned or available for the physically impaired.

P136 Recreational developments and plans should promote the primacy of preserving the natural character, resources and ecology of shorelines of statewide significance.

P137 The City should develop and promote recreational uses within Carnation's shorelines as a local economic asset.

P138 Water-oriented recreation proposals which complement their environment and surrounding uses, and leave natural areas undisturbed and protected, are preferred in the shoreline jurisdiction.

P139 Water-dependent recreational uses should be preferred as a first priority and water-related and water-enjoyment recreational uses as a second priority.

P140 Nonwater-oriented recreational uses should be discouraged on the shoreline and, where allowed, shall include public access and ecological rehabilitation.

P141 Shoreline areas with a potential for providing recreation or public access opportunities should be identified for this use in the City's public park and open space plans; where public access is provided with private development consistent with Section III.F, easements should be recorded.

P142 The City should seek federal, state and county assistance in acquiring shoreline areas for recreational use by the public.

P143 A variety of compatible recreational experiences and activities should be encouraged to satisfy diverse recreational needs.

P144 The linkage of shoreline parks, recreation areas and public access points with linear systems, such as hiking paths, bicycle paths, easements and/or scenic drives, should be encouraged.

P145 The use of shoreline street ends and publicly owned lands for public access and development of recreational opportunities should be encouraged.

P146 Recreational developments should be located and designed to tolerate, during peak use periods, a balance of active and passive uses without significantly degrading ecological functions.

Regulations

R205 Water-oriented recreation proposals are a preferred use in the shoreline jurisdiction. Water-dependent recreational uses shall be preferred as a first priority and water-related and water-enjoyment recreational uses as a second priority.

R206 The potential adverse impacts of all recreational uses shall be mitigated and adequate provisions for shoreline rehabilitation shall be made as part of any proposed recreational use or development to ensure no net loss of shoreline ecological function.

R207 Recreational development shall be required to meet the vegetation management provisions contained in Section III.G, Shoreline Vegetation Conservation.

R208 The recreational use of off-road vehicles is prohibited in all shoreline areas, outside of dedicated public right-of-way and private driveways.

R209 Valuable shoreline resources and fragile or unique areas such as marshes, bogs, swamps, estuaries and accretion beaches shall be used only for low-intensity recreation activities that result in no net loss of shoreline ecological function, and do not require the construction and placement of permanent structures.

R210 For recreation developments that require the use of fertilizers, pesticides or other toxic chemicals, the proponent shall submit plans demonstrating the best management practices to be used to prevent these applications and resultant leachate from entering adjacent waters. The proponent also shall not apply such chemicals closer than 100 feet to delineated wetlands or the ordinary high water marks of the Tolt or Snoqualmie Rivers.

R211 Signs indicating the public's right to access shoreline areas shall be installed and maintained in conspicuous locations at all points of access.

R212 Recreational buildings or structures shall be set back from the OHWM as provided in SMP Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations.

R213 In approving shoreline recreational developments, the City shall ensure that the development will maintain, enhance or restore desirable shoreline features including unique and fragile areas, scenic views and aesthetic values. The City may therefore adjust or prescribe project dimensions, on-site location of project components, intensity of use, screening, lighting, parking and setback requirements.

R214 Recreational developments shall provide facilities for nonmotorized access to the shoreline such as pedestrian and bicycle paths. Provision of new motorized vehicular access is prohibited except as is necessary to assist maintenance activities.

R215 This Program prohibits use of motorized all-terrain and off-road vehicles within the shoreline jurisdiction, except upon public roads and permitted private roads and driveways.

R216 Proposals for recreational developments shall include a landscape plan that utilizes primarily native, self-sustaining vegetation. The removal of on-site native vegetation shall be limited to the minimum necessary for the development of permitted structures or facilities.

R217 No recreational buildings or structures shall be built over any natural body of water.

R218 The City shall limit intensity of recreational use to that which may be adequately accommodated by water, sewage and garbage services. Low-intensity activities shall be priority uses within the shoreline jurisdiction, and preferred over higher intensity recreation.

R219 The placement of picnic tables, playground apparatus and other similar minor components within the floodways shall be permitted, provided such structures shall be located and installed in such a manner as to prevent them from being swept away during any flood event.

R220 Recreational facilities shall make adequate provisions, such as screening, buffer strips, fences and signs, to prevent trespass upon adjacent properties and to protect the value and enjoyment of adjacent or nearby private properties and natural areas.

R221 All recreational developments shall make adequate provisions for:

(a) both on-site and off-site pedestrian, bicycle and, where appropriate, equestrian access;
(b) appropriate water supply and waste disposal methods;
(c) security and fire protection;
(d) the prevention of overflow and trespass onto adjacent properties with landscaping, fencing, property postings, and other means; and
(e) buffering of such development from adjacent private property or natural area.

R222 Recreational developments shall be located and designed to preserve, enhance or create scenic views and vistas. Such scenic views should be identified in the shoreline inventory.

R223 Where such opportunities reasonably exist, new recreational development shall be required to develop linkage with existing or future planned linear systems, such as hiking paths, bicycle paths, easements and/or scenic drives.

H. TRANSPORTATION FACILITIES

Some existing transportation and parking facilities exist within the City's shoreline jurisdiction. This program recognizes the continuation of existing transportation facilities and provides

direction on how future transportation facilities associated with development within the shoreline jurisdiction should be sited and constructed. The policies and regulations identified in this subsection pertain to any project within any environment that affects some change in transportation facilities.

Policies

P147 The City should seek to provide for safe, reasonable, and adequate circulation systems to shorelines.

P148 Due to the physical limitations of Carnation's shoreline jurisdiction, this Program strongly discourages new motor vehicle transportation facilities or extensions that run parallel to the shoreline.

P149 Development should utilize existing transportation corridors and minimize the number of motor vehicle ingress/egress points within the shoreline.

P150 Project designs and methods of access should not conflict with, or cause adverse impacts on, efficient traffic flow.

P151 Road and railroad location and design should conform to the topographical characteristics of the shoreline, and thereby minimize changes to natural conditions.

P152 Water crossings should be limited to the very least number possible.

P153 Circulation system planning for access to and along shorelands should include systems for pedestrian, bicycle, and public transportation where appropriate. Pedestrian trails and bicycle paths should be encouraged along shorelines wherever they are compatible with the natural character, resources and ecology of the shoreline. Shoreline access plans and projects should emphasize the use of pedestrian trails and bicycle paths over direct access by roads.

P154 Proposed transportation facilities should be planned, located, and designed in a manner having the least possible adverse effect upon unique or fragile shoreline features and existing ecological functions or upon existing or future water-dependent uses.

P155 Motor vehicle and rail transportation facilities should not be located within shoreline jurisdiction or inside shoreline buffers, unless other options are unavailable or unfeasible.

P156 Unused transportation corridors and other rights-of-way should be retained and converted to public access or recreational use.

P157 Joint use of transportation corridors and other rights-of-way should be encouraged in order to minimize adverse impacts on the shoreline.

P158 All debris, overburden and other waste materials from transport facility construction should be handled, contained and disposed of in a manner which prevents their entry into adjacent water bodies.

P159 Parking in shoreline areas should be allowed only as an accessory use to a permitted shoreline use, activity or development.

P160 Primary-use parking facilities should be prohibited within the shoreline jurisdiction.

P161 Parking facilities should be located and designed to minimize the adverse impacts associated with increased and concentrated impervious surface area within the shoreline area. Such adverse impacts include increased stormwater runoff, vegetation and habitat loss, degraded water quality, scenic degradation and the creation of site-specific traffic congestion.

Regulations

R224 The development of new motor vehicle and rail transportation facilities within shoreline jurisdiction is disfavored and shall require a shoreline conditional use permit wherever allowed.

R225 The improvement and expansion of existing motor vehicle or rail transportation facilities shall also represent conditional uses within Carnation's shorelines.

R226 Parking in shoreline jurisdiction shall only be allowed as an accessory use to a primary permitted shoreline use, activity or development and shall be subject to the same permit type as the primary use. Expansions of accessory parking shall be permitted with a Shoreline Substantial Development Permit. Primary use parking facilities shall be prohibited within the shoreline jurisdiction.

R227 The development of new pedestrian and bicycle transportation facilities are allowed within the urban conservancy, shoreline residential and high intensity environments and shall require a shoreline conditional use permit in the natural environment. Such transportation facilities are a preferred use wherever they are compatible with the natural character, resources and ecology of the shoreline.

R228 Transportation facilities and services for motor vehicles and rail shall utilize existing transportation corridors whenever possible.

R229 Proposed transportation facilities, or improvements to existing facilities, shall be planned, located, and designed in a manner having the least possible adverse effect upon unique or fragile shoreline features and existing ecological functions or upon existing or future water-dependent uses.

R230 All forms of transportation facilities shall, wherever feasible, consolidate water crossings and make joint use of rights-of-way with existing or planned future primary utility facilities and other transportation facility modalities.

R231 All transportation facilities shall provide for integration with recreational uses where feasible.

R232 Improvements to existing motor vehicle and rail transportation facilities shall not interfere with pedestrian and bicycle access, and shall whenever possible provide for expansion and enhancement of pedestrian and bicycle transportation facilities.

R233 Pedestrian and bicycle transportation facilities shall be designed, located, and constructed consistent with the policies and regulations for public access as provided in this Master Program.

R234 Improvements to all existing transportation facilities shall provide for the reestablishment and enhancement of natural vegetation along the shoreline.

R235 The vacation of public right-of-way that abuts a body of water, for purposes of private ownership or development, shall be prohibited unless the public right-of-way is unsuitable for recreational, educational or other public uses.

R236 Motor vehicle and rail transportation facilities shall not be located within shoreline jurisdiction or inside vegetation management corridors, unless:

(a) the proponent demonstrates that no feasible upland alternatives exist; and
(b) the project represents the minimum development necessary to serve another specific, localized and permitted shoreline use; or
(c) in the case of a water crossing, the proponent demonstrates that the project is necessary to further a substantial public interest.

R237 Parking facilities shall be planned to avoid or minimize adverse effects on unique or fragile shoreline features and shall not result in a net loss of shoreline ecological functions or adversely impact existing or planned water-dependent uses. Parking facilities shall be located upland of the principal structure, building, or development they serve, and preferably outside of shoreline jurisdiction, except:

(a) Where the proponent demonstrates that an alternate location would reduce adverse impacts to the shoreline and adjacent uses; and/or
(b) Where another location is not feasible: and/or
(c) Except when Americans with Disability Act (ADA) standards require otherwise.

R238 The capacity and design of parking facilities shall generally conform to all applicable requirements of the Carnation Land Use Code, provided that proponents may satisfy applicable parking space requirements through shared parking arrangements.

R239 Parking facilities shall be landscaped in a manner to minimize adverse visual and aesthetic impacts upon adjacent shoreline and abutting properties. Landscape installation shall be completed prior to completion and use of the parking facility. Landscaping shall include native vegetation species and plantings shall provide effective screening within three years of project completion. The screening standards contained within the Carnation Land Use Code shall apply within the shoreline jurisdiction.

R240 When water crossing is determined to be a necessity, transportation facilities shall cross the shoreline jurisdiction by the shortest and most direct route feasible. This requirement

shall only be waived when such a route would cause more disruption or damage to the environment than a less direct one.

R241 Proponents shall design and locate all new transportation facilities to prevent or minimize the need for shoreline protective measures or substantial site grading.

R242 All transportation facilities shall utilize elevated open-pile or pier structures whenever they are permitted to cross rivers, streams or wetlands. All bridges must provide six (6) feet of freeboard above the 100-year flood level and be built high enough to allow for the passage of waterborne debris.

R243 All transportation facilities shall be sited and designed to avoid steep or unstable areas and to fit into the existing topography without requiring significant grading or other shoreline modification.

R244 All cut and fill slopes necessary for the development of transportation facilities shall be designed at a 1:1½ / 56° or lesser angle of repose. The potential for erosion from cut, fill and sidecast slopes shall be adequately mitigated through mulching, seeding, compaction or similar techniques.

R245 Whenever possible, all transportation facilities shall be designed, located, and constructed parallel to the direction of existing surface drainage, and shall minimize the need to route surface waters through culverts

R246 Permitted culverts and similar structures shall be designed and constructed to accommodate 100-year storm volumes.

R247 Where permitted, culverts shall be designed and located to minimize possible channel relocation.

R248 All water crossings, debris grates, culverts and other devices through or under which fish might pass shall incorporate the use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern to ensure the safe passage of fish in accordance with all applicable requirements established by the State Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.

R249 The following water crossing structures may be permitted when open pile construction is not feasible:

(a) temporary culverts;
(b) bottomless arch culverts;
(c) elliptical culverts; or
(d) round culverts.

These structures are listed in descending preference. The applicant must demonstrate by substantial evidence that the more-preferred structures are infeasible before a less preferred structure shall be permitted.

R250 Bridge abutments and necessary approach fills shall be located landward of the OHWM and adjacent wetlands. Bridge piers may be placed inside these areas when no alternative method is feasible.

R251 All transportation facilities shall be designed, constructed, and maintained to contain and control all debris, overburden, runoff, erosion and sediment generated from the affected areas. Relief culverts and diversion ditches shall not discharge onto erosion-prone soils, fills or side cast materials.

R252 Any soil or debris accidentally placed in a water channel during bridge construction shall be immediately removed by approved methods. All exposed soils shall be stabilized and revegetated following completion of construction.

R253 This Program prohibits under any circumstance the construction of any transportation facilities within stream channel migration areas or areas subject to severe erosion or landslides.

R254 All approved transportation facilities shall provide for adequate vegetation retention and management consistent with SMP Section III.G, Shoreline Vegetation Conservation.

R255 No machinery shall operate within the Aquatic environment or within a wetland except in strict compliance with all necessary local, state and federal permits and conditions.

R256 Overburden, debris and other waste materials shall not be deposited in natural resource areas, or sidecast onto the side of roads. Such materials shall where feasible be removed from the shoreline jurisdiction. They shall otherwise be deposited in stable locations where erosion and reentry into resource areas is prevented.

I. UTILITIES, PRIMARY AND ACCESSORY

This Program classifies utilities as either accessory or primary activities. Primary utilities uses and activities involve public or private utility facilities designed to serve several users. Accessory utilities entail facilities that directly serve individual shoreline developments. For example, on-site utility features serving a primary use, such as a water, sewer or gas line to a residence, are "accessory utilities" and shall be considered a part of the primary use. Practically all types of development include accessory utilities. The policies and regulations of this Program guide maintenance of existing utilities and siting and construction of future utilities within the shoreline jurisdiction.

Policies

P162 Primary utility facilities should be planned, designed, and located to minimize harm to shoreline functions, preserve the natural landscape, and minimize conflicts with present and future planned land and shoreline uses while meeting the needs of future populations in areas planned to accommodate growth.

P163 Primary utility production and processing facilities, or parts of those facilities, such as power plants, solid waste storage or disposal facilities, and sewage treatment plants that are nonwater-oriented should not be permitted within the shoreline jurisdiction unless no other options are feasible.

P164 Primary utility transmission facilities for the conveyance of services, such as power lines, sewer mains, cables, and pipelines should be located outside of the shoreline where feasible, and where permitted within the shoreline should be located to minimize potential adverse impacts to shoreline areas.

P165 New primary utilities should utilize existing transportation and utility sites, rights-of-way and corridors whenever possible, rather than creating new corridors. Joint use of rights-of-way and corridors should be encouraged.

P166 Primary utilities should be limited in wetlands, critical wildlife areas or other unique and fragile shoreline areas unless no other feasible alternative location exists.

P167 New primary utility facilities should be located so as not to require extensive shoreline protection works.

P168 Primary utility facilities and corridors should be located so as to protect scenic views. Whenever possible, such facilities should be placed underground or alongside or under bridges.

P169 Primary utility facilities and rights-of-way should be designed to preserve the natural landscape and to minimize conflicts with present and planned land uses.

P170 The placement of accessory utilities should not encourage infrastructure and capital facilities development in excess of those envisioned within Carnation's Comprehensive Plan.

P171 Utility facilities and rights-of-way should be located outside of the shoreline jurisdiction unless no other feasible location exists. Utility lines should be placed underground when they require a shoreline location.

P172 Permitted utility facilities should be designed, located and installed in a manner that protects and preserves the shoreline ecology and the natural landscape.

P173 Utility facilities should be designed and located in a manner that minimizes potential incompatibility or conflict with present and future planned land uses.

Regulations

R257 New primary utility facilities, or the improvement or expansion of existing facilities shall constitute a conditional use wherever permitted. New accessory utilities are considered part of the primary use and shall be subject to the same permit type as the primary use. Expansions of accessory utilities shall be permitted with a Shoreline Substantial Development Permit.

R258 Solid waste storage and disposal activities and facilities are prohibited in shoreline areas.

R259 This Program prohibits the extension of accessory utilities to any non-conforming use, activity or development for the purpose of expanding or intensifying such non-conforming use, activity, or development.

R260 The Shoreline Administrator shall ensure that all utility extensions are consistent with the infrastructure development and capital facilities planning provided in the City's Comprehensive Plan.

R261 New primary utility facilities shall be located outside of the shoreline jurisdiction unless the proponent demonstrates by substantial evidence that:

(a) No feasible upland alternatives exist;
(b) The proposed facilities represent the minimum development necessary to provide adequate services to the areas to be served by the primary utility; and
(c) The potential adverse impacts of the proposed primary utility facilities are adequately mitigated to avoid significant adverse impacts to the shoreline function and ecology.

R262 Utility production and processing facilities, such as power plants and sewage treatment plants, or parts of those facilities, that are nonwater-oriented shall not be allowed in shoreline jurisdiction unless it can be demonstrated that no other feasible option is available.

R263 Approved utility lines shall whenever possible utilize existing rights-of-way, corridors or bridge crossings and shall avoid duplication and construction of new corridors. Proposals for new corridors must demonstrate by substantial evidence why the use of existing routes is not feasible.

R264 The construction of over-water transmission structures shall be avoided wherever possible. Proposals shall first consider anchoring these structures to existing bridges or similar facilities, and then the construction of underwater crossings.

R265 Proponents shall coordinate with the City to provide for compatible, multiple use of sites and rights-of-way. Such uses include shoreline access points, trail systems and other forms of recreation and transportation, providing such uses will not unduly endanger public health and safety, or unduly interfere with utility operations.

R266 Approved utilities shall be located, designed, and constructed to avoid damage or destruction to wetlands, important wildlife areas, scenic views or other unique and fragile resources, and to achieve no net loss of shoreline ecological function.

R267 Utilities shall be sited and designed to conform to the existing shoreline topography.

R268 New utility lines shall be located underground, except:

(a) where the presence of sensitive areas, ground water, flood threat, bedrock or other obstructions make such placement unfeasible; or
(b) underground placement would create greater adverse environmental impacts than above-ground transmission; or
(c) underground placement is not feasible as that term is defined in this Master Program.

R269 When a water crossing is determined to be a necessity, utility facilities shall cross the shoreline jurisdiction by the shortest and most direct route feasible except where such a route would cause more disruption or damage to the environment than a less direct one.

R270 Utility developments shall be designed and located to avoid or minimize the use of substantial site grading, shoreline defense or flood protection works.

R271 Sites disturbed during utility installation shall be stabilized to prevent erosion.

R272 Utility facility structures shall be set back from the OHWM consistent with shoreline buffers established in Section III.G, Shoreline Vegetation Conservation and Appendix A, Critical Areas Regulations. Such structures shall also be located outside all shoreline buffer areas.

R273 Utilities shall be screened from waterbodies and adjacent properties. The City shall determine the requirements for such screening on a case-by-case basis consistent with Chapter 15.76 of the Carnation Municipal Code.

R274 Where water crossing utility lines cannot be anchored to a bridge or other pre-existing overwater structure, such lines shall be completely buried under the streambed.

R275 Subsurface utility corridors shall only be located in salmon and steelhead habitat provided the proponent demonstrates through the use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern that all of the following conditions are met:

(a) the project is located and designed to minimize its potential adverse impacts upon the shoreline environment;
(b) all potential adverse impacts to salmon and steelhead habitat have been adequately mitigated;
(c) no net loss of critical salmon and steelhead habitat will result;
(d) construction is timed to avoid fish migratory and spawning periods.

R276 Applications for installation of utility facilities shall include the following:

(a) description of the proposed facilities;
(b) a statement why the proposed facility requires a shoreline location;
(c) alternative locations considered and reasons for their elimination;
(d) location of other utility facilities in the vicinity of the proposed project and any plans to include the facilities of other types of utilities in the project;

(e) plans for reclamation of areas disturbed both during construction and following decommissioning and/or completion of the primary utility's useful life;
(f) plans for control of erosion and turbidity during construction and operation; and
(g) identification of any possibility for locating the proposed facility at another existing utility facility site or within an existing utility right-of-way.

J. IN-STREAM STRUCTURES

In-stream structures are placed by humans within a stream or river waterward of the ordinary high water mark that either cause or have the potential to cause water impoundment or the diversion, obstruction or modification of water flow. In-stream structures may include those for hydroelectric generation (including both public and private facilities), flood control, irrigation, transportation (such as bridge support), utility service transmission, water supply (both domestic and industrial), recreation, or fish habitat enhancement (such as a weir or large woody debris).

Policies

P174 In-stream structures should provide for the protection and preservation of ecosystem-wide processes, ecological functions and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeologic processes, and natural scenic vistas.

P175 The location, design, and construction of in-stream structures should give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.

P176 The location, design, and construction of in-stream structures should incorporate the use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern to avoid, minimize and mitigate any potential adverse impacts to the shoreline functions and ecology, with particular emphasis on priority habitats and species.

Regulations

R277 The Proponent shall provide the following information with its submittal for review of a proposal for the development of new in-stream structures:

(a) A site suitability analysis which provides sufficient justification for the proposed site. This analysis must include identification of alternative sites, and a thorough discussion of the environmental impacts of each. The full utilization or practicable unavailability of existing facilities shall be demonstrated; otherwise the expansion of existing facilities, or the integration of new facilities within existing flood control, irrigation, or water supply facilities shall be preferred over development of new facilities.
(b) Provisions for public access to and along the affected shoreline and proposed recreational features at the site, where applicable.

(c) A plan describing the extent and location of vegetation proposed for removal to accommodate the proposed facility, and any site revegetation plan required by this Master Program.

(d) A hydraulic analysis prepared by a licensed professional engineer which sufficiently describes the project's effects on hydraulics, including potential increases in base flood elevation, changes in in-stream velocity, and the potential for redirection of the normal flow of the affected stream.

(e) Biological resource inventory and analysis, prepared by a professional biologist, that sufficiently describes the project's effects on fisheries and wildlife resources.

(f) Provisions for erosion control, and protection of water quality, fishery and wildlife resources during construction.

(g) Long-term management plans which describe, in sufficient detail, provisions for protection of instream resources during construction and operation, and any mitigation measures for resources which will not be able to be protected. The plan shall include means for monitoring its success.

(h) Disposal sites for debris, overburden, and other waste materials from construction.

R278 In-stream structures and their support facilities shall be located and designed to minimize the necessity for shoreline stabilization or flood protection structures. All diversion structures shall be designed to permit natural transport of bedload materials.

R279 The size of in-stream structures shall be limited to the minimum necessary to accomplish the purposed of the structure.

R280 In-stream structures shall not be placed over salmonid spawning habitat.

R281 Proposed designs for new or expanded in-stream structures shall be designed and certified by qualified professionals, including an engineer and a biologist.

R282 Subject to the approval of the appropriate authority of the state and federal agencies, in-stream structures shall provide for adequate upstream or downstream migration of anadromous fish, where applicable.

R283 All heavy construction equipment, and fuel storage, repair, and construction material staging areas shall be located at least two hundred (200) feet from the OHWM. During construction and assembly periods, however, construction material staging areas may be temporarily located within two hundred feet from the OHWM.

R284 In-stream structures shall be constructed and maintained in a manner that does not degrade the quality of affected waters. The City shall require reasonable conditions to achieve this objective.

K. BOATING FACILITIES

Boating facilities include those uses and developments that provide the boating public with recreational opportunities on Carnation's shorelines. Boating facilities do not include any uses

or structures that serve four or fewer single-family residences. In Carnation, allowed boating facilities are limited to public boat launches.

Policies

P177 The location of boating facilities should be carefully considered with respect to:

(a) the potential for adverse impacts to the shoreline function and ecology with particular concern for adverse impacts to priority species;
(b) public access;
(c) shoreline configuration; and
(d) conflict with neighboring uses, activities, and developments.

P178 When considering the location of proposed boating facilities, regional as well as local needs should be taken into account. The consumption of shoreline resources should be minimized by encouraging expansion of existing facilities instead of the development of new ones, when appropriate.

P179 Boating facilities should be designed, constructed, maintained, and operated to protect and minimize adverse impacts to shoreline resources, features, and processes.

P180 Boating facilities should be located and designed to assure no net loss of shoreline ecological functions while providing public recreational opportunities.

P181 Given the nature of Carnation's river shorelines, the limited navigability of the rivers, and the frequency of significant flooding events, piers, docks, marinas, covered moorages, and other similar boating facilities installed or maintained upon the Aquatic environment should be prohibited.

P182 Boating facilities should be designed, located, and constructed to prevent the degradation of water quality.

P183 In-water and over-water boating facilities used as residences should be prohibited.

Regulations

R285 When new sites are considered for launch ramps, sufficient evidence must be presented to show that existing facilities are inadequate and cannot be expanded to meet regional demand.

R286 Launch ramps shall be located where access roads are adequate to handle the traffic load generated by the facility. Collector roads between public launches and arterial routes shall have all-weather (bituminous) surfacing.

R287 All launch ramps shall locate on stable shorelines in areas where: (1) there is adequate water mixing and flushing; (2) they will not adversely affect flood channel capacity or otherwise create a flood hazard; (3) water depths are adequate to eliminate or minimize the need for dredging, spoil disposal, filling, beach enhancement, and other channel

maintenance activities; (4) critical areas, active channel migration areas, and salmonid spawning habitat is not present; and (5) adequate public access is provided.

R288 Boat launches shall be located on existing grade, avoiding fill or dredging where feasible, and shall not obstruct navigation rights or access to and along the shoreline.

R289 Dredging wetlands to accommodate new or expanded boating facilities is prohibited.

R290 Launch ramps may be permitted where the upland slope within 25 feet of the OHWM does not exceed 25 percent, or where substantial cutting, grading, filling or shoreline stabilization is not necessary. The construction of such boating facilities shall not involve grading or fill activities in excess of fifty (50) cubic yards of material.

R291 Parking, dry moorage, and other storage areas shall be located landward of other launch ramp uses, except for short-term loading areas which shall be located at or near launch ramps. The perimeters of these areas shall be landscaped to provide visual and noise buffering between adjacent dissimilar uses or scenic areas. To the maximum extent possible, public launch ramps and accessory uses shall share parking facilities, with parking for launch ramp usage given preference.

R292 Boating facilities shall be designed so that no more than 50% of the lot is covered by buildings, pathways, or other structures.

R293 All boating facilities shall be the minimum size necessary to accommodate the anticipated demand. Specifically, the size and number of in-water structures, the waterward length of the facility, and the extent of any necessary associated shoreline stabilization or modification shall be minimized.

R294 Preferred launch ramp designs, in order of priority, are:

(a) Open grid designs with minimum coverage of substrate.
(b) Seasonal ramps that can be removed and stored upland.
(c) Structures with segmented pads and flexible connections that leave space for natural substrate and can adapt to changes in substrate profile.

R295 Discharge of solid waste or sewage into a waterbody is prohibited. Garbage or litter receptacles shall be provided and maintained by the operator at several locations convenient to users. Fueling of boats or facilities for fueling of boats is prohibited in shoreline jurisdiction.

R296 Piers, docks, marinas, covered moorages, and other similar boating facilities installed or maintained in or upon the Aquatic environment are prohibited.

R297 Floating residences are prohibited in shoreline jurisdiction.

R298 Extended moorage without a lease or permission is prohibited.

VI. SHORELINE MODIFICATION POLICIES AND REGULATIONS

Shoreline modifications are generally related to construction of a physical element such as a dike, breakwater, dredged basin, or fill, but they can include other actions such as clearing, grading, application of chemicals, or significant vegetation removal. Shoreline modification activities usually prepare for or support a shoreline use. A single use may require several different shoreline modification activities.

A. GENERAL SHORELINE MODIFICATION PROVISIONS

These provisions should be applied to all shoreline modification activities whether such proposals address a single property or multiple properties.

Policies

P184 To reduce adverse impacts, all forms of shoreline modification should be limited in number and extent to the minimum necessary to achieve their purpose.

P185 The City should only permit those shoreline modification activities that are necessary to support or protect approved or legal existing uses.

P186 Shoreline stabilization and flood protection projects shall acquire all required federal or state permits or approvals and shall conform to the standards specified by the same. Structures that do not require such permits or approvals shall conform to similar standards as a condition of local permit approval.

P187 Where permitted, shoreline stabilization and flood protection works that have a lesser impact upon ecological functions are preferred. For example, bioengineering methods are preferred over concrete revetments, extensive riprap, and other structural methods.

P188 Substantial stream channel direction modifications, realignment or straightening should be discouraged as a means of shoreline stabilization and flood protection.

P189 Natural features such as snags, stumps or uprooted trees that support fish habitat and other ecological functions should be left undisturbed.

P190 Shorelines that exist in their natural state should be preserved in their natural state, free of shoreline modification.

P191 Dredging and grading activities should minimize impacts on water quality as a result of contaminant leaching, the disturbance of habitats, or the introduction of suspended solids into water resources. All such activities should be consistent with the regulatory requirements of all applicable local, state and federal agencies.

P192 Shoreline modifications for the management of erosion, stream flow rates or floodwaters should be located, designed, constructed and maintained to prevent off-site impacts and other adverse effects on existing water quality.

P193 Permitted shoreline modification activities should be designed, located, and constructed in a manner to ensure no net loss of ecological functions while accommodating permitted uses and developments. All feasible methods to mitigate unavoidable adverse impacts to ecological shoreline functions should be incorporated into every proposal to modify the shorelines. Additional restoration and enhancement is encouraged.

P194 Shoreline modification activities should only be allowed or permitted where appropriate to the specific type of shoreline and environmental conditions for which such modification activities are proposed.

Regulations

R299 This Program prohibits any shoreline modification activity that is not directly necessary to protect or support an approved or legal existing structure that is otherwise in danger of loss or substantial damage, or that is not necessary to support reconfiguration of the shoreline for mitigation or enhancement purposes.

R300 All forms of shoreline modification shall be limited to the minimum size and number necessary to achieve their purpose, through application of mitigation sequencing as outlined in SMP Section III.C, Environmental Impacts, in order to reduce the potential for adverse impacts. All feasible measures to protect shoreline ecological functions and ecosystem-wide processes shall be incorporated into the project design.

R301 Proponents shall obtain and comply with all applicable federal and state permits and approvals required for construction and operation of shoreline stabilization and flood protection works. The conditions of such permits and approvals shall be incorporated into all permits issued for such projects.

R302 Where an existing structure cannot be removed due to environmental, safety, or geological concerns, its replacement structure shall be placed as close to the existing structure as possible.

R303 Shoreline modification measures that have a lesser impact upon ecological functions shall be preferred over alternative measures. The applicant shall demonstrate by substantial evidence that alternative measures with such lesser impacts are not feasible.

R304 Substantial stream channel direction modifications, realignment or straightening shall not be permitted.

R305 Where feasible, shoreline modification activities shall avoid the removal or disturbance of natural features such as snags, stumps, or uprooted trees that support fish habitat and ecological functions. If removal or disturbance is required, the proponent shall provide suitable mitigation to replace lost functions and values.

R306 Shoreline modification activities, other than repair and maintenance, shall not be permitted in the Natural environment, except upon a demonstration that such activities are necessary to protect the public from imminent harm.

R307 Shoreline modification activities shall be designed, located, and constructed in such a manner as to provide for no net loss of ecological functions in the shoreline.

R308 Shoreline modification activities shall minimize the potential for adverse impacts to water quality, and where unavoidable, shall mitigate for any such adverse impacts consistent with the mitigation sequence outlined in Section III.D, Environmental Impacts, Regulation 21.

R309 Mitigation measures associated with shoreline modification activities shall incorporate the use of the most current, accurate, and complete scientific and technical information available that is applicable to the issues of concern.

B. SHORELINE STABILIZATION

Shoreline stabilization activities include actions taken to address erosion impacts to property and dwellings, businesses, or essential structures caused by natural process, such as current, flood, wind, or boat wake action. These actions include structural and non-structural methods. Non-structural methods include building setbacks, relocation of the structure to be protected, groundwater management, planning, and regulatory measures to avoid the need for structural stabilization. "Hard" structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads or revetments. A revetment is a sloped shoreline structure built to protect an existing shoreline against erosion by currents and weather. "Soft" structural measures rely on less rigid materials, such as vegetation, bioengineering measures, or beach enhancement. Non-structural measures are preferred.

Bioengineering uses vegetative materials, soft gabions, fabric stabilization and similar techniques to stabilize shorelines and prevent erosion. Bioengineering projects often include anchored logs or root wads in project design for fisheries habitat enhancement. Bioengineering may be applied in upland areas away from the immediate shoreline. Bioengineering is the preferred choice for shoreline stabilization. Combining bioengineering techniques with structural projects is also encouraged over the use of revetments and levees alone.

Policies

P195 Shoreline stabilization should be located, designed, and maintained to protect and maintain shoreline ecological functions, ongoing shoreline processes, and the integrity of shoreline features. Ongoing stream or lake processes and the probable effects of proposed shoreline stabilization on other properties and shoreline features should be considered. Shoreline stabilization should not be developed for the purpose of filling shorelines.

P196 Structural shoreline stabilization measures should only be used when more natural, flexible, non-structural methods such as placing the development farther from the OHWM, planting vegetation, or installing on-site drainage improvements, beach nourishment and bioengineering have been determined infeasible.

P197 Structures should be located and designed to avoid the need for future shoreline stabilization where feasible. Land subdivisions should be designed to assure that future

development of the created lots will not require shoreline stabilization for reasonable development to occur.

P198 New or expanded should only be permitted where demonstrated to be necessary to protect structural stabilization measures should only be permitted where demonstrated to be necessary to protect an existing primary structure, including residence, that is in danger of loss or substantial damage, and where mitigation of impacts would not cause a net loss of shoreline ecological functions and processes..

P199 Shoreline stabilization on streams should be located and designed to fit the physical character and hydraulic energy potential of a specific shoreline reach, which may differ substantially from adjacent reaches.

P200 Shoreline stabilization should not be permitted when it interferes with public access to shorelines of the state, nor with other appropriate shoreline uses including, but not limited to, navigation or private recreation.

P201 Provisions for multiple use, restoration, and/or public shoreline access should be incorporated into the location, design and maintenance of shoreline stabilization for public or quasi-public developments whenever safely compatible with the primary purpose. Shoreline stabilization on publicly owned shorelines should not be allowed to decrease long-term public use of the shoreline.

P202 New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas should not be allowed.

Regulations

R310 The purpose of this section is to provide standards and guidelines for the location and design of hard structural and soft structural shoreline stabilization measures that have the potential to adversely impact the shoreline natural environment. New development, however, shall be located and designed to avoid the need for future shoreline stabilization to the extent feasible. In all cases, the feasibility of soft structural shoreline stabilization shall be evaluated prior to hard structural stabilization. Shoreline stabilization shall be designed so that net loss of ecological functions does not occur.

R311 New structural shoreline stabilization measures, including both hard and soft structural shoreline stabilization measures, shall include measures installed to address erosion impacts. Enlargement of an existing structural shoreline stabilization shall include additions to or increases in size (such as height, width, length, or depth) to existing shoreline stabilization measures and these enlargements shall be considered new structures. New or enlarged structural stabilization measures shall not be allowed, except as follows:

(a) To protect an existing primary structure, including residences, when conclusive evidence, documented by a geotechnical analysis, is provided that the structure is in danger from shoreline erosion caused by currents or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or

geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering hard or soft structural shoreline stabilization. OR

(b) In support of new non-water-dependent development, including single-family residences, when all of the conditions below apply:

(1) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.
(2) Nonstructural measures, such as placing the development farther from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient to adequately address erosion impacts.
(3) The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report. The damage must be caused by natural processes, such as currents or waves. OR

(c) In support of water-dependent development when all of the conditions below apply:

(1) The erosion is not being caused by upland conditions, such as drainage and the loss of vegetation.
(2) Nonstructural measures, such as planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient to adequately address erosion causes or impacts.
(3) The need to protect primary structures, including residences, from damage due to erosion is demonstrated through a geotechnical report. OR

(d) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient to adequately address erosion causes or impacts.

R312 Repair and maintenance of existing shoreline stabilization measures is allowed, subject to the following defining characteristics. [Note: repair and maintenance of shoreline stabilization structures may meet the criteria for exemption from a Shoreline Substantial Development Permit, but they are not exempt from the policies and regulations of this Section or the SMP.]

(a) Maintenance and repair shall include modifications or improvements to an existing shoreline stabilization measure that are designed to ensure the continued function of the stabilization measure by preventing failure of any part of the stabilization measure.
(b) Modifications or improvements that include additions to or increases in size of existing shoreline stabilization measures shall be considered new structures, and are not a repair.

(c) The placement of a new shoreline stabilization structure landward of a failing shoreline stabilization structure shall be considered a new structure, and is not maintenance or repair.

R313 The following standards apply to replacement of existing hard and soft structural shoreline stabilization measures:

(a) For purposes of this section, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure that can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall also be considered new structures.

(b) Replacement shall be treated as a new shoreline stabilization measure subject to the restrictions of Regulation 311 above, as well as the submittal requirements of Regulations 320 and 321 below, except for the requirement to prepare a geotechnical analysis. A geotechnical analysis is not required for replacements of existing hard or soft structural shoreline stabilization with a similar or softer measure if the applicant demonstrates need to protect principal uses or structures from erosion caused by waves or other natural processes operating at or waterward of the OHWM.

(c) Replacement hard structural shoreline stabilization measures protecting existing residences shall not encroach waterward of the OHWM or waterward of the existing shoreline stabilization measure unless the residence was constructed prior to January 1, 1992, and there is overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. All other replacement hard structural shoreline stabilization measures shall be located at or landward of the existing shoreline stabilization structure.

R314 Hard and soft shoreline stabilization measures may include some fill waterward of the OHWM to provide enhancement of shoreline ecological functions through enhancement of spawning or rearing habitat.

R315 New development that would require shoreline stabilization which causes significant impacts to adjacent or downstream properties or shoreline areas is prohibited.

R316 Shoreline stabilization activities shall not be permitted in the Natural environment, except upon a demonstration that such activities are necessary to protect the public from imminent harm.

R317 All approved new, enlarged, repair, or replacement shoreline stabilization measures must minimize and mitigate any adverse impacts to ecological functions resulting from short-term construction activities or long-term operation.

R318 Publicly financed or subsidized shoreline stabilization measures shall not restrict public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. Whenever possible and appropriate, include and provide improved access to public shorelines. When a structural shoreline stabilization measure is required at a public access site, provisions for

safe access to the water shall be incorporated into the shoreline stabilization structure design (e.g., steps integrated into the bulkhead, coved area with shallow entry). Access measures should not extend farther waterward than the face of the shoreline stabilization measure and the OHWM.

R319 Shoreline stabilization should be developed in a coordinated manner among affected property owners and public agencies, particularly those that cross jurisdictional boundaries, to address ecological and geo-hydraulic processes and sediment conveyance issues. Where erosion threatens existing development, a comprehensive program for shoreline management should be established by the multiple affected property owners.

R320 In addition to the standard permit application information required by this Master Program, all applications for shoreline stabilization projects shall include the following information:

(a) proposed timing of all construction phases of the project, including identification of expected flood flows compared with proposed timing;
(b) construction sequence and specifications for all materials;
(c) location of ordinary high water mark;
(d) the project's location relative to upland and adjacent structures;
(e) documentation (including photos) of existing pre-construction shoreline characteristics;
(f) existing soil types, bank materials and analysis of slope stability;
(g) the existing and proposed topographical, geological and other physical characteristics of the project site, and of adjacent uplands;
(h) design of transition areas between the shoreline stabilization site and adjacent properties (both up and downstream of project);
(i) an assessment of projected and potential adverse impacts upon ecological functions and natural processes, adjacent properties, and upland stability;
(j) flow analysis, addressing hydrology and the hydraulic characteristics of all shoreline areas within a 1/2 mile radius of the project site;
(k) the characteristics of all shoreline stabilization and flood protection devices existing within 1/2 mile radius of the project site; and,
(l) an analysis of feasible alternative methods to achieve the same purpose with less adverse impacts.

R321 For a new or enlarged hard or soft structural shoreline stabilization measure, a geotechnical report prepared by a qualified professional with an engineering license is required. The report shall include the following:

(a) An assessment of the necessity for structural shoreline stabilization by estimating time frames and rates of erosion and reporting on the urgency associated with the specific situation. New hard structural shoreline stabilization measures shall not be authorized, except when a report confirms that that there is a significant possibility that an existing structure will be damaged within three years as a result of shoreline erosion in the absence of such hard structural shoreline stabilization measures, or where waiting until the need is immediate results in the loss of

opportunity to use measures that would avoid impacts on ecological functions. Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.

(b) An assessment of the cause of erosion, looking at processes occurring both waterward and landward of the OHWM.

(c) An assessment of alternative measures to shoreline stabilization, including:

(1) Placing the development farther from the OHWM.

(2) Correcting any on-site groundwater or drainage issues that may be causing shoreline erosion.

(d) Where structural shoreline stabilization is determined to be necessary, the assessment must evaluate the feasibility of using soft shoreline stabilization measures in lieu of hard structural shoreline stabilization measures. Soft shoreline stabilization may include the use of gravels, cobbles, boulders, and logs, as well as vegetation.

(e) Design recommendations for minimum sizing of hard structural or soft structural shoreline stabilization materials, including gravel and cobble beach substrates necessary to dissipate wave energy, eliminate scour, and provide long-term shoreline stability.

R322 For replacements of existing hard structural shoreline stabilization measures with a similar measure, the applicant shall submit a written narrative providing a demonstration of need. The narrative must be prepared by a qualified professional. The demonstration of need shall consist of the following:

(a) An assessment of the necessity for continued structural shoreline stabilization, considering site-specific conditions such as water depth, orientation of the shoreline, wave fetch or flow velocities, and location of the nearest primary structure.

(b) An assessment of erosion potential resulting from the action of waves or other natural processes operating at or waterward of the OHWM in the absence of the hard structural shoreline stabilization.

(c) An assessment of alternative measures to shoreline stabilization, including:

(1) Relocating the development farther from the OHWM.

(2) Correcting any on-site groundwater or drainage issues that may be causing shoreline erosion.

(d) An assessment of the feasibility of using soft shoreline stabilization measures in lieu of hard structural shoreline stabilization measures. Soft structural shoreline stabilization may include the use of gravels, cobbles, boulders, and logs, as well as vegetation.

(e) Design recommendations for minimizing impacts of any necessary hard structural shoreline stabilization.

R323 Structural shoreline stabilization measures shall be placed upland of the floodway and any wetlands. Only current deflectors necessary for the protection of bridges and roads may be placed waterward of the floodway boundary.

R324 The use of car bodies, scrap building materials, or any other form of solid waste for shoreline stabilization is prohibited. Organic materials normally used for habitat enhancement or bioengineering methods shall not be considered solid waste under this provision.

R325 Proponents shall mitigate for any adverse impacts to ecological functions, and shall restore all fish or wildlife habitat damaged or degraded as a result of their project. Where applicants demonstrate that restoration is not feasible, adverse impacts shall be mitigated with the creation of in-kind habitat near the project.

R326 All soft structure shoreline stabilization projects and mitigation for hard structural shoreline stabilization projects shall use an appropriately diverse variety of self-sustaining native plant materials including trees, shrubs and grasses, unless demonstrated to be impractical for the particular site.

R327 All cleared areas shall be replanted following construction and vegetation shall be fully reestablished within three years. Cleared areas shall continue to be replanted until such time as vegetation is adequately reestablished.

R328 Shoreline stabilization projects shall be periodically monitored and maintained as necessary. Damaged areas shall be promptly repaired.

R329 All construction and planting activities shall be scheduled to minimize impacts to water quality and fish and wildlife aquatic and upland habitat and to optimize survival of new vegetation.

R330 Hard structural shoreline stabilization shall meet the following design criteria:

(a) The size and quantity of the material shall be limited to only that necessary to withstand the projected cumulative intensity of river action during the anticipated life of the project;
(b) Filter cloth must be used to aid drainage and help prevent settling; and
(c) The toe reinforcement or protection must be adequate to prevent a collapse of the system for the anticipated life of the project.

R331 Hard structural shoreline stabilization shall be constructed using techniques and materials that will minimize degradation of natural shoreline values and functions, including fish and wildlife habitat, water quality, vegetation and aesthetics. The following techniques and materials shall be used:

(a) Any riprap material shall only consist of quarried rock that is free of loose dirt and any pollutants. This rock shall be of sufficient size and weight to prevent movement by wave or current action.

(b) Use of downed logs, snags or rockwork to enhance habitat and to provide a more natural appearance to the shoreline shall be incorporated into the design where appropriate.

(c) Where on-site environmental conditions allow, vegetation shall be integrated into the stabilization measure to provide cover and habitat, reduce erosion, and improve the natural appearance of the shoreline.

C. DREDGING AND DREDGE MATERIAL DISPOSAL

Dredging is the removal or displacement of earth, sediments or other materials from any waterbody or wetland. Dredging is normally done for specific purposes such as the construction and maintenance of canals, installation of subsurface pipelines or cable crossings, or the repair and maintenance of flood control and drainage systems.

Dredge material disposal refers to the final deposition of dredging by-products on land or in waterbodies.

Policies

P203 Dredging should only be allowed as part of shoreline restoration, flood hazard reduction, water-dependent use accommodation, or other public-benefitting facility implementation. Carnation's shorelines are not used for commercial navigation, so dredging is not necessary or appropriate for navigation-related use.

P204 Dredging and dredge material disposal should only be permitted when it can be done in a manner which results in no net loss of ecological functions.

P205 Dredge material disposal in waterbodies should be discouraged, except when it is intended to improve habitat.

Regulations

R332 In addition to the information otherwise required by this Master Program, applications for shoreline dredging and dredge material disposal shall provide the following information:

(a) physical, chemical and biological assessment of the proposed dredged material applicable to the particular site. All such assessments shall be conducted by qualified and appropriately licensed professionals. The assessment shall contain an analysis of the following:

(1) the potential for adverse impacts to existing biological communities or resources in the area;
(2) the potential for sediment contamination; and
(3) the suitability of the proposed dredge disposal site in consideration of the policies and regulations of this Master Program and other applicable local, state and federal laws and regulations.

(b) material specific analysis of dredged material including the following parameters:

(1) Physical - grain size, clay, silt, sand or gravel as determined by sieve analysis.
(2) Chemical - including conventional parameters, metals and organics.
(3) Biological – such as bioassays or other analysis useful in determining the potential adverse biological or ecological impacts of dredged material for a selected disposal option.

(c) dredging volumes, methods, schedule, frequency, hours of operation and procedures;
(d) method of disposal, including the location, size, capacity and physical characteristics of the disposal site, transportation method and routes, hours of operation, and schedule;
(e) riverbed stability adjacent to proposed dredging area;
(f) hydraulic analyses, to include current flows, direction and projected impacts. Hydraulic modeling studies are required for large scale, extensive dredging projects, particularly in estuaries, in order to identify existing geohydraulic-hydraulic patterns and probable effects of dredging; and
(g) assessment of potential adverse water quality impacts.

R333 In evaluating permit applications for any dredging project, the adverse effects of the initial dredging, subsequent maintenance dredging, and dredge disposal that will be necessary shall be considered. Dredging and dredge disposal shall be permitted only where it is demonstrated by substantial evidence that the proposed actions will not:

(a) result in significant adverse impacts to water quality, priority habitats, priority species, or other significant ecological functions; and
(b) adversely alter natural drainage and circulation patterns, river currents and flows, or significantly reduce floodwater capacities.

R334 Proposals for dredging and dredge disposal shall mitigate for all adverse impacts.

R335 Dredging and dredge disposal shall not be scheduled in such a way that it interferes with sensitive seasonal ecological events such as fish runs. Dredging activities shall not occur during a fishing season unless all potential adverse impacts to the recreational activity are specifically addressed and mitigated.

R336 Dredging and dredge disposal shall be prohibited upon sites listed in the Register of Historic Places or upon listed archaeological sites.

R337 Dredging shall be permitted only in connection with one of the following uses, activities, or developments:

(a) an approved habitat improvement project;
(b) water quality improvement project;
(c) a public facility project;
(d) a water-dependent use; or
(e) a flood management project consistent with an approved comprehensive flood and stormwater management plan.

R338 When dredging is permitted, the dredging shall be the minimum necessary to accommodate the proposed use or accomplish the proposed public objective.

R339 Dredging shall utilize techniques that cause minimum dispersal and broadcast of bottom material.

R340 New dredging activity is prohibited in:

(a) wetlands;
(b) shoreline areas where currents make bottom materials prone to significant sloughing and refilling; or
(c) any other area where the project would result in a need for continual maintenance dredging.

R341 Dredging waterward of the ordinary high water mark for the primary purpose of obtaining fill material is prohibited, except when the material is necessary for the restoration of ecological functions.

R342 Dredging to construct navigation canals or small basins for boat moorage, water ski landings, or swimming holes is prohibited.

R343 The disposal of dredged material shall occur at upland disposal sites approved through the permitting process.

R344 If upland disposal of dredge materials occurs within the City, it shall not be located upon, adversely affect, or diminish:

(a) any wetlands, channel migration zones, or significant plant communities;
(b) significant natural resources including, but not limited to, sand and gravel deposits, prime agricultural land, recreational areas, except as enhancement;
(c) designated or officially recognized wildlife habitat;
(d) water and drainage resources areas; or
(e) public shorelines access areas.

R345 Upland disposal sites shall adhere to the following conditions:

(a) Containment dikes and adequate settling basins shall be built and maintained so that the site's discharge water carries a minimum of suspended sediment.
(b) Proper diversion of surface discharge shall be provided to maintain the integrity of the natural streams, wetlands and drainages;
(c) Runoff water shall be controlled so as to enter a waterway in a manner designed to ensure the protection of water quality and ecological functions;
(d) Underground springs and aquifers shall be identified and protected;
(e) Sites shall be planted with suitable cover as soon as possible following the completion of dredge disposal in order to retard wind and water erosion; and
(f) Sites shall be adequately screened from view.

R346 Unless dispersed disposal is authorized as a condition of permit approval for soil enhancement or similar purposes, dredged materials shall be placed on the smallest possible land area in order to minimize the quantity of land that is disturbed.

R347 The City shall impose reasonable limitations on dredge disposal operating hours and may require the use of buffers at disposal or transfer sites to protect the public from unnecessary adverse impacts.

D. FILL (WATERWARD OF THE OHWM)

For the purposes of this subsection, fill is the placement of soil, sand, rock, gravel, sediment or other material waterward of the OHWM. The definition of Fill includes placement of material in areas upland of the OHWM as well, but such actions are regulated under Section VI.F, Grading and Upland Fill.

Policies

P206 The City should prevent increases in the frequency or destructive power of local and downstream flood events by prohibiting activities that block, narrow and therefore decrease the flood-carrying capacity of Carnation's shorelines. Such activities include filling below the OHWM.

P207 Extraordinary circumstances may arise in which an overriding public interest compels fill activity, specifically during public infrastructure projects. This Program should make provisions for these rare events.

P208 When evaluating fill projects, such factors as potential and current public use of the shoreline, water surface area, water flow and drainage, water quality and habitat should be considered and protected to the maximum extent possible.

P209 All fill activities should be designed and conducted to minimize stream sedimentation, impacts to wildlife habitat, and degradation of water quality.

P210 All fill activities should be limited to the minimum necessary to accommodate a specific permitted shoreline development.

P211 Negative environmental and shoreline impacts of fill should be avoided wherever possible through proper site planning, construction timing and practices, bioengineering, and use of erosion and drainage control methods, as well as adequate maintenance.

Regulations

R348 Fill activities shall be allowed only when necessary to support water-dependent uses, public access, cleanup and disposal of contaminated sediments, disposal of dredged material considered suitable under, and conducted in accordance with the Dredged Material Management Program of the Department of Natural Resources, 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, mitigation action, environmental restoration, beach nourishment or enhancement projects.

R349 Speculative fill activities are prohibited.

R350 All fill activities shall be limited to the minimum necessary for the intended development.

R351 Fill activities shall mitigate for all adverse impacts upon fish and wildlife habitat, currents and river flows, natural drainage and circulation patterns, water quality, and flood water capacities.

R352 Fill activities shall involve the minimum disturbance necessary to accommodate the proposed use, activity, or development.

R353 Fill materials shall be sand, gravel, soil, rock or similar material. Use of polluted dredge spoils, solid waste and sanitary landfill materials are prohibited.

R354 All fills shall be located, designed and constructed to protect shoreline ecological functions and ecosystem-wide processes, including channel migration. Fill shall be minimized to the maximum extent practicable and necessary to accommodate approved shoreline uses and development activities that are consistent with this SMP.

E. GRADING AND UPLAND FILL (LANDWARD OF THE OHWM)

Grading refers to the physical alteration of the earth's surface and surface drainage patterns without significant addition to or removal of on-site materials.

For the purposes of this subsection, upland fill is the placement of soil, sand, rock, gravel, sediment or other material landward of the OHWM (outside of wetlands), in a manner that raises the elevation or creates dry land. Fill within wetlands is subject to the applicable critical area provisions found in Appendix A.

These activities may include minor excavation and filling. Both activities may increase erosion and runoff, change drainage patterns, reduce flood storage capacity, and damage habitat.

P212 The City should prevent increases in the frequency or destructive power of local and downstream flood events by prohibiting activities that block, narrow and therefore decrease the flood-carrying capacity of Carnation's shorelines. Such activities include filling that results in an unmitigated net increase in total land volume within shoreline jurisdiction. Upland fills shall only be allowed when consistent with applicable provisions of Section 1.700, Frequently Flooded Areas of Appendix A of this SMP.

P213 Extraordinary circumstances may arise in which an overriding public interest compels fill activity, specifically during public infrastructure projects. This Program should make provisions for these rare events.

P214 When evaluating grading and fill projects, such factors as potential and current public use of the shoreline, water surface area, water flow and drainage, water quality and habitat should be considered and protected to the maximum extent possible.

P215 All grading and fill activities should be designed and conducted to minimize stream and wetland sedimentation, impacts to wildlife habitat, and degradation of water quality.

P216 All grading and fill activities should be limited to the minimum necessary to accommodate a specific permitted shoreline development. Such activities should be discouraged within the shoreline buffers this Program designates from the ordinary high water mark.

P217 Negative environmental and shoreline impacts of grading and fill should be avoided wherever possible through proper site planning, construction timing and practices, bioengineering, and use of erosion and drainage control methods, as well as adequate maintenance.

P218 Disturbed buffer areas, dedicated open space, and areas not directly employed under a permitted use should be promptly restored with native vegetation after grading and fill is completed.

Regulations

R355 Grading and fill activities shall only be permitted in conjunction with a specific pre-existing or approved development that represents a permitted or legal existing use under this Program.

R356 Speculative fill and grading activities are prohibited.

R357 Grading and fill activities shall be designed and conducted to prevent any net increase in on-lot land volume, or any decrease in on-lot water holding capacity. When evaluating a proposal, the City shall only allow fill equivalent in volume to new artificial retention capacities occupied by non-flood waters less than four months of the average year. For instance, if engineering studies indicate that ground water would occupy 90% of an excavated retention basin six months of any given year, the City would only permit filling equivalent to 10% of that basin's total capacity. Proponents shall demonstrate by substantial evidence that grading and fill activities conform to this regulation.

R358 All grading and fill activities shall be limited to the minimum necessary for the intended development.

R359 For all grading and fill activities that do not require a Fill and Grade Permit, the proponent shall submit, in addition to the information otherwise required by this Master Program, analysis and plans concerning the following (where applicable):

(a) adverse impacts to vegetation, wildlife, and habitat and proposed mitigation measures;
(b) erosion and sedimentation control; and

(c) an analysis of feasible alternatives to reduce or minimize the amount of grading or fill necessary for the proposed use, activity, or development;
(d) the proposed use of the area to be graded or filled;
(e) physical, chemical and biological characteristics of the fill material;
(f) source of fill material;
(g) method of placement and compaction;
(h) location of fill relative to natural and/or existing drainage patterns and wetlands.
(i) location of the fill perimeter relative to the OHWM;
(j) perimeter erosion control or stabilization means; and
(k) type of surfacing and runoff control devices.

R360 Grading and fill activities shall mitigate for all adverse impacts upon fish and wildlife habitat, currents and river flows, natural drainage and circulation patterns, water quality, and flood water capacities.

R361 Grading and fill activities shall involve the minimum disturbance necessary to accommodate the proposed use, activity, or development.

R362 Grading and fill activities shall be designed, constructed and maintained to prevent, minimize and control all material movement, erosion and sedimentation from the affected area. Perimeters of permitted grading and fill projects shall be designed and constructed with silt curtains, vegetation buffer areas, or other methods and appropriately sloped to prevent erosion and sedimentation both during initial activities and afterwards. Such containment practices shall occur during the first growing season following completion of the fill. Design shall incorporate use of natural appearing and self sustaining control methods unless they can be demonstrated to be infeasible due to existing environmental conditions such as currents, tides and weather.

R363 Fill materials shall be sand, gravel, soil, rock or similar material. Use of polluted dredge spoils, solid waste and sanitary fill materials are prohibited.

R364 Fills shall be designed to allow surface water penetration to ground water as such conditions existed prior to fill.

F. SHORELINE HABITAT AND NATURAL SYSTEMS ENHANCEMENT PROJECTS

Shoreline habitat and natural systems enhancement projects entail those in which public and private parties engage to acquire knowledge of and preserve, protect, and enhance valued scientific and ecological sites. Examples include habitat recovery efforts and ecological studies.

Policies

P219 The City should aid all bona fide scientific and conservation projects within shoreline jurisdiction that catalogue and preserve local natural resources, consistent with the Goals and Objectives of the City's Shoreline Restoration Plan.

P220 When appropriate, the City should retain its legal interest in all scientific discoveries and conservation projects. Carnation should develop for its citizens any social, economic or other benefits that may arise from such activities.

P221 The City should, and private entities are encouraged to, seek funding from state, federal, County, private and other sources to implement restoration, enhancement, and acquisition projects, particularly those that are identified in the Restoration Plan of this SMP or the local watershed plans.

Regulations

R365 Shoreline restoration and ecological enhancement projects may be permitted in all shoreline environments provided the project's purpose is the restoration of the natural character and ecological functions of the shoreline.

R366 All scientific and conservation proposals shall document the following with their request for any required shoreline permit:

(a) the intent of the project;
(b) forecast of benefits to local natural or social resources;
(c) the project's start and completion dates;
(d) the extent of any clearing or grading activity;
(e) the provisions for revegetation; and
(f) the forecast effects on preservation and formation of sensitive areas and habitats, drainage patterns and adjacent uses.

VII. ADMINISTRATION AND ENFORCEMENT

This Chapter assigns responsibilities for Program implementation and establishes review criteria for shoreline development proposals and permit applications. This Chapter supplements the regulations for shoreline management set forth in Chapter 15.92 Carnation Municipal Code (CMC) Shoreline Management. This Chapter and the relevant portions of the CMC seek to ensure that each policy and requirement of the Act and the Master Program are implemented and enforced, while providing for the fair and equitable treatment of persons affected by the Program.

A. NONCONFORMING USE AND DEVELOPMENT STANDARDS

The provisions of WAC 173-27-070 shall apply to substantial development undertaken prior to the effective date of the SMA. The provisions of WAC 173-27-080 shall apply to nonconforming uses.

B. SHORELINE PERMITS, PROCEDURES, AND ADMINISTRATION

R367 Roles and Responsibilities

(a) SMP Administrator. The City Planner or his/her designee shall serve as the SMP Administrator. The SMP Administrator is hereby vested with the authority to:

(1) Administer this SMP.
(2) Grant or deny exemptions from Shoreline Substantial Development Permit requirements of this SMP.
(3) Grant or deny applications for Shoreline Substantial Development Permits.
(4) Make field inspections as needed, and prepare or require reports on shoreline permit applications.
(5) Make written recommendations to the Planning Board, Hearing Examiner, and/or City Council, as appropriate.
(6) Advise interested persons and prospective applicants as to the administrative procedures and related components of this SMP.
(7) Collect fees for all necessary permits as adopted by the City Council by ordinance or resolution. The determination of which fees are required shall be made by the SMP Administrator.
(8) Make administrative decisions and interpretations of the policies and regulations of this SMP and the SMA.

(b) Hearing Examiner. The Hearing Examiner shall have the authority to:

(1) Decide on appeals from administrative decisions issued by the Administrator of this SMP.
(2) Grant or deny variances from this SMP.
(3) Grant or deny conditional uses under this SMP.

(c) Planning Board. The Planning Agency is vested with the responsibility to review the SMP as part of regular SMP updates required by RCW 90.58.080 as a major element of the City's planning and regulatory program, and make recommendations for amendments thereof to the City Council.

(d) City Council. The City Council is vested with authority to:

(1) Initiate an amendment to this SMP according to the procedures prescribed in WAC 173-26-100.
(2) Adopt all amendments to this SMP, after consideration of the recommendation of the planning agency, where established. Substantive amendments shall become effective immediately upon adoption by Ecology.

C. **INTERPRETATION**

The City shall consult with Ecology to ensure that any formal written interpretations are consistent with the purpose and intent of chapter 90.58 RCW and 173-26 WAC.

D. STATUTORY NOTICING REQUIREMENTS

R368 Applicants shall follow the noticing requirements of the City. At a minimum, the City shall provide notice in accordance with WAC 173-27-110, and may provide for additional noticing requirements.

R369 Per WAC 173-27-120 the City shall comply with special procedures (public notice timelines, appeal periods, etc.) for limited utility extensions and bulkheads.

E. APPLICATION REQUIREMENTS

R370 A complete application for a Shoreline Substantial Development, Shoreline Conditional Use, or Shoreline Variance Permit shall contain, at a minimum, the information listed in WAC 173-27-180.

R371 The SMP Administrator may vary or waive these requirements according to administrative application requirements on a case by case basis.

R372 The SMP Administrator may require additional specific information depending on the nature of the proposal and the presence of sensitive ecological features or issues related to compliance with other City requirements, and the provisions of this SMP.

F. EXEMPTIONS FROM SHORELINE SUBSTANTIAL DEVELOPMENT PERMITS

R373 Compliance with Applicable Regulations Required. An exemption from the Shoreline Substantial Development Permit process is not an exemption from compliance with the SMA or this SMP, or from any other regulatory requirements. To be authorized, all uses and development must be consistent with the policies, requirements and procedures of this SMP and the SMA.

R374 Interpretation of Exemptions

(a) Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the Shoreline Substantial Development Permit process.

(b) A development or use that is listed as a conditional use pursuant to this SMP or is an unlisted use, must obtain a Shoreline Conditional Use Permit even though the development or use does not require a Shoreline Substantial Development Permit. When a development or use is proposed that does not comply with the bulk, dimensional and performance standards of this SMP, such development or use can only be authorized by approval of a Shoreline Variance.

(c) The burden of proof that a development or use is exempt from the permit process is on the applicant.

(d) If any part of a proposed development is not eligible for exemption, then a Shoreline Substantial Development Permit is required for the entire proposed development project.

(e) The City may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the SMA and this SMP. Additionally, nothing shall interfere with each responsible local government's ability to require compliance with all other applicable laws and plans.

R375 Exemptions

(a) The City shall exempt from the Shoreline Substantial Development Permit requirement the shoreline developments listed in WAC 173-27-040 and RCW 90.58.030 (3)(e), 90.58.140(9), 90.58.147, 90.58.355 and 90.58.515.
(b) Letters of exemption shall be issued by the City when an exemption per Regulation 375(a) applies or when a letter of exemption is required by the provisions of WAC 173-27-050.

G. SHORELINE SUBSTANTIAL DEVELOPMENT PERMITS

R376 A Shoreline Substantial Development Permit shall be required for all development of shorelines, unless the proposal is specifically exempt per Section 8.5.3. Shoreline Substantial Development permits shall be processed with a Type II procedure as set forth in Chapter 15.09 CMC Local Project Review.

R377 A substantial development permit shall be granted only when the development proposed is consistent with the policies and procedures of the SMA; the provisions of WAC 173-27; and this SMP.

(a) The City may attach conditions to the approval of permits as necessary to assure consistency of the project with the SMA and this SMP.
(b) Nothing shall interfere with the City's ability to require compliance with all other applicable plans and laws.

H. SHORELINE CONDITIONAL USE PERMITS

R378 Determinations of Conditional Use Permits

(a) Uses specifically classified or set forth in this SMP as conditional uses shall be subject to review and condition by the Hearing Examiner and by Ecology. Shoreline Conditional Use Applications shall be processed with a Type III procedure as set forth in Chapter 15.09 CMC Local Project Review.
(b) Other uses which are not classified or listed or set forth in this SMP may be authorized as conditional uses provided the applicant can demonstrate consistency with the requirements of this Section and the requirements for conditional uses contained in this SMP.
(c) Uses which are specifically prohibited by this SMP may not be authorized as a conditional use.

R379 Review Criteria. The City shall apply the following review criteria consistent with WAC 173-27-160:

(a) Uses which are classified or set forth in this master program as conditional uses may be authorized provided that the applicant demonstrates all of the following:

(1) That the proposed use is consistent with the policies of RCW 90.58.020 and the master program;
(2) That the proposed use will not interfere with the normal public use of public shorelines;
(3) That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and shoreline master program;
(4) That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and
(5) That the public interest suffers no substantial detrimental effect.

(b) In the granting of all Shoreline Conditional Use Permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if Shoreline Conditional Use Permits were granted for other developments in the area where similar circumstances exist, the total of the conditional uses shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment.

R380 Conditions of Approval

(a) In authorizing a conditional use, special conditions may be attached to the permit by the City or Ecology to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the SMA and this SMP.
(b) Nothing shall interfere with the City's ability to require compliance with all other applicable plans and laws.

I. SHORELINE VARIANCE PERMITS

R381 Purpose. The purpose of a variance is to grant relief to specific bulk or dimensional requirements set forth in this SMP where there are extraordinary or unique circumstances relating to the property such that the strict implementation of this SMP would impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020. Variances from the use regulations of the SMP are prohibited. Shoreline Variance Applications shall be processed with a Type III procedure as set forth in Chapter 15.92 CMC Local Project Review.

(a) Review Criteria. The City shall apply the following review criteria consistent with WAC 173-27-170:

(1) Variance permits should be granted in circumstances where denial of the permit would result in a thwarting of the policy enumerated in RCW

90.58.020. In all instances the applicant must demonstrate that extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect.

(2) Variance permits for development and/or uses that will be located landward of the OHWM, as defined in RCW 90.58.030(2)(b), and/or landward of any wetland as defined in RCW 90.58.030(2)(h), may be authorized provided the applicant can demonstrate all of the following:

i. That the strict application of the bulk, dimensional or performance standards set forth in the SMP precludes, or significantly interferes with, reasonable use of the property;

ii. That the hardship described in criterion A of this subsection is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the SMP, and not, for example, from deed restrictions or the applicant's own actions;

iii. That the design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and SMP and will not cause adverse impacts to the shoreline environment;

iv. That the variance will not constitute a grant of special privilege not enjoyed by the other properties in the area;

v. That the variance requested is the minimum necessary to afford relief; and

vi. That the public interest will suffer no substantial detrimental effect.

(3) Variance permits for development and/or uses that will be located waterward of the OHWM, as defined in RCW 90.58.030(2)(b), or within any wetland as defined in RCW 90.58.030(2)(h), may be authorized provided the applicant can demonstrate all of the following:

i. That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes all reasonable use of the property;

ii. That the proposal is consistent with the criteria established under Regulation 381(a); and

iii. that the public rights of navigation and use of the shorelines will not be adversely affected.

(b) In the granting of all Variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if variances were granted to other developments and/or uses in the area where similar circumstances exist, the total of the variances shall also remain consistent with the policies of RCW 90.58.020 and shall not cause substantial adverse effects to the shoreline environment.

J. DURATION OF PERMITS

The duration of permits shall be consistent with WAC 173-27-090.

K. INITIATION OF DEVELOPMENT

R382 Each permit for a Substantial Development, Shoreline Conditional Use or Shoreline Variance issued by local government shall contain a provision that construction pursuant to the permit shall not begin and is not authorized until twenty-one (21) days from the date of receipt with Ecology as defined in RCW 90.58.140(6) and WAC 173-27-130, or until all review proceedings initiated within twenty-one (21) days from the date of receipt of the decision, except as provided in RCW 90.58.140(5)(a) and (b). The date of receipt for a Substantial Development Permit means that date the applicant receives written notice from Ecology that it has received the decision. With regard to a permit for a Shoreline Variance or a Shoreline Conditional Use, date of receipt means the date a responsible local government or applicant receives the written decision of Ecology.

R383 Permits for Substantial Development, Shoreline Conditional use, or Shoreline Variance may be in any form prescribed and used by the City including a combined permit application form. Such forms will be supplied by the City.

R384 A permit data sheet shall be submitted to Ecology with each shoreline permit. The permit data sheet form shall be consistent with WAC 173-27-990.

L. REVIEW PROCESS

R385 After the City's approval of a Conditional Use or Variance Permit, the City shall submit the permit to the Department for Ecology's approval, approval with conditions, or denial. Ecology shall render and transmit to the City and the applicant its final decision approving, approving with conditions, or disapproving the permit within thirty days of the date of submittal by the City pursuant to WAC 173-27-110.

R386 Ecology shall review the complete file submitted by the City on Conditional Use and Variance Permits and any other information submitted or available that is relevant to the application. Ecology shall base its determination to approve, approve with conditions or deny a conditional use permit or variance on consistency with the policy and provisions of the SMA and, except as provided in WAC 173-27-210, the criteria in WAC 173-27-160 and 173-27-170.

R387 The City shall provide timely notification of the Ecology's final decision to those interested persons having requested notification from local government pursuant to WAC 173-27-130.

M. APPEALS

R388 Regarding administrative appeals of SMP Administrator interpretations, see Section VII.B of this SMP.

R389 All requests for review of any final permit decisions under chapter 90.58 RCW and chapter 173-27 WAC are governed by the procedures established in RCW 90.58.180 and chapter 461-08 WAC, the rules of practice and procedure of the Shorelines Hearings Board.

N. AMENDMENTS TO PERMITS

R390 A permit revision is required whenever the applicant proposes substantive changes to the design, terms or conditions of a project from that which is approved in the permit. Changes are substantive if they materially alter the project in a manner that relates to its conformance to the terms and conditions of the permit, the SMP and/or the policies and provisions of chapter 90.58 RCW. Changes which are not substantive in effect do not require approval of a revision.

R391 Revisions to permits shall be considered consistent with WAC 173-27-100.

O. ENFORCEMENT AND PENALTIES

R392 The Act provides for a cooperative program between the City and the Department of Ecology to implement and enforce the provisions of the Act and this Master Program. This Section provides for a variety of means of enforcement, including civil and criminal penalties, orders to cease and desist, and orders to take corrective action, in accordance with WAC 173-27-270, 173-27-290, and 173-27-300. The enforcement means and penalties provided herein are not exclusive and may be taken or imposed in conjunction with, or in addition to, any other civil enforcement actions and civil penalties, injunctive or declaratory relief, criminal prosecution, actions to recover civil or criminal penalties, or any other action or sanction authorized by this Section, or any other provision of the Carnation Municipal Code and Land Use Code, or any other provision of state or federal law and regulation.

R393 The Administrator, with the assistance of the City Attorney, shall have authority to commence and prosecute any enforcement action authorized by this section. In determining the appropriate enforcement actions to be commenced and prosecuted, the Administrator shall consider the following factors:

(a) the nature of the violation;
(b) the extent of damage or potential future risk to the shoreline environment and its ecological functions or to the public health and safety, caused by or resulting from, whether directly or indirectly, the alleged violation;
(c) the existence of knowledge, intent, or malice on behalf of the violator;
(d) the economic benefit or advantage that accrued to the violator(s) as a result of the violation; and
(e) the estimated actions and costs of providing adequate mitigation, restoration, rehabilitation, or enhancement, to repair or minimize any substantial adverse impacts upon the shoreline environment and its ecological functions, or the public health and safety.

R394 The Administrator may commence and prosecute enforcement action jointly with the Department of Ecology. Pursuant to WAC Chapter 173-27, the Department of Ecology may initiate and prosecute enforcement action separate from the Administrator.

R395 The imposition and recovery of civil penalties is hereby authorized as follows:

(a) Any person who acts, or omits to act, in a manner that constitutes a violation of the applicable terms and conditions of a shoreline permit and/or of the policies, regulations, and other provisions of this Master Program, the Act, or WAC 173-27, or who fails to obtain all permits required under the Program, or who fails to comply with a cease and desist order issued under this Chapter or by the Department, shall be subject to a civil penalty for each separate violation of not less than $100.00 nor more than $1,000.

(b) A separate violation shall be deemed to have occurred for each violation of a distinct permit condition or term, or each policy, regulation, or other provision of the Master Program, the Act, or WAC 173-27. Further, each day, or portion of a day, upon which a violation occurs or continues shall be deemed to constitute a separate violation.

(c) Any person who advances, aids, or abets any violation, as described in subsection (a), shall be considered to have committed a violation subject to civil penalty. Any conscious act of commission or omission that so advances, aids, or abets any violation shall fall under the authority of this subsection.

(d) Upon determining that there is substantial evidence that a violation has occurred or is continuing, the Administrator shall notify the alleged violator(s) of the violation by issuance of a Notice of Correction. The Notice of Correction shall be issued to the violator by certified mail, return receipt requested, or by personal service. The Notice of Correction shall also be posted upon the site or location where such violation has occurred or exists. The Notice of Correction shall be deemed received upon the date of personal service or three (3) days following the date of mailing. The Notice of Correction shall contain, at minimum, the following information:

(1) a description of the nature and extent of the violation(s), the times, dates, and locations where the violation(s)s have occurred or exist, and a specific citation to any applicable permit condition or term, or law, policy, regulation or rule that relates to the violation(s);

(2) a statement of what is required to cease the violation and/or achieve compliance;

(3) the date by which the Administrator requires the violation to be ceased, or by which compliance is to be achieved. Provided that, such date shall provide a reasonable and feasible opportunity for the violator to adequately respond, except where the violation presents an imminent threat of substantial adverse impact to the shoreline environment and ecological functions, or the public health and safety, in which case the date established may be immediate;

(4) notice of the means to contact any technical assistance services provided by the City or others of which the Administrator is aware;

(5) notice of the procedure to request an extension of the time to cease the violation or achieve compliance;
(6) notice that failure to cease the violation or achieve compliance within the date specified will result in further enforcement action, including but not limited to the imposition of civil penalties of up to $1,000 per violation, criminal prosecution, or civil injunction or declaratory relief.

(e) The Administrator is authorized to issue an Order to Cease and Desist and impose civil penalties pursuant thereto, upon finding that the violator has not timely or properly responded to the required compliance action(s) and/or deadline(s) as established in the Notice of Correction.

(f) Upon determining that the following circumstances exist with respect to any alleged violation, the Administrator may elect to immediately issue an Order to Cease and Desist and impose civil penalties. A prior Notice of Correction shall not be required under these circumstances:

(1) the violator has previously been subject to an enforcement action for the same or similar type of violation within the preceding five (5) years;
(2) the violator has been provided previous notice from the Department or other agencies with jurisdiction of the same or similar type of violation;
(3) the violation has a probability of placing any person in imminent danger of death or substantial bodily harm;
(4) the violation has the probability of causing significant adverse impacts to the shoreline environment and ecological functions;
(5) the violation has a probability of causing substantial physical damage or harm to property of another in an amount exceeding one thousand dollars ($1,000.00).

(g) The Order to Cease and Desist and imposition of civil penalties shall be delivered to the violator by certified mail, return receipt requested, or by personal service. The Order shall also be posted upon the site or location where the violation has occurred or exists. The Order to Cease and Desist shall be deemed complete upon the date of personal service or three (3) days following the date of mailing. The Order shall contain, at minimum, the following information:

(1) A description of the nature and extent of the violation(s), the times, dates, and locations where the violation(s) have occurred or exist, and a specific citation to any applicable permit condition or term, or law, policy, regulation or rule that relates to the violation(s);
(2) A statement of what is required to cease the violation and/or achieve compliance;
(3) An Order directing the violator to immediately cease and desist the violation(s) and/or to achieve compliance within a date as determined by the Administrator to provide a reasonable and feasible opportunity for the violator to adequately respond, except where the violation presents an imminent threat of substantial adverse impact to the shoreline environment

and ecological functions, or the public health and safety, in which case the date established may be immediate;

(4) Notice of the means to contact any technical assistance services provided by the City or others of which the Administrator is aware;

(5) An Order imposing civil penalties, in the amount determined by the Administrator, for each violation and each day thereof, as determined from the date of receipt of the Notice to Correct, if so issued, or the date of receipt of the Order to Cease and Desist, whichever date is earlier;

(6) A statement that the civil penalties imposed will continue to accumulate for each day, or portion thereof, for which the violation or non-compliance continues.

(7) Notice that failure to cease the violation or achieve compliance within the date specified will result in further enforcement action, including but not limited to the accumulation of additional civil penalties, criminal prosecution, or civil injunction and/or declaratory relief;

(8) Notice of any applicable administrative appeal or remission procedures.

(h) Mandatory civil penalties shall be imposed by the Administrator in every case where the following circumstances exist:

(1) the violator has failed to comply with the cessation or compliance deadline as established in a lawfully issued Notice of Correction;

(2) any circumstances listed in subsections (f)(i) to (v).

(i) The minimum civil penalty that shall be imposed by the Administrator is one hundred dollars ($100) per violation, for each day or portion of a day upon which the violation occurs or continues. The maximum civil penalty that shall be imposed by the Administrator is one thousand dollars ($1,000) per violation, for each day or portion of a day upon which the violation occurs or continues.

(j) Any person incurring a civil penalty may request in writing a remission or mitigation of the civil penalty within thirty 30 days of receipt of the Order to Cease and Desist. The request for remission shall be filed with the Administrator, or with the Department if the civil penalty has been imposed solely by the Department. The Administrator, or Department (where applicable) shall only remit or mitigate the civil penalty upon a demonstration of extraordinary circumstances, such as the presence of factors not considered when the original penalty was set. Provided that if the civil penalty has been jointly imposed by the Administrator and the Department, then it shall only be remitted or mitigated upon such terms as both the Department and Administrator agreed.

(k) Every civil penalty imposed under this section shall become due and payable thirty days after receipt of Order to Cease and Desist imposing the same unless application for remission or mitigation is made or an appeal is filed. Whenever an application for remission or mitigation is made, penalties shall become due and payable thirty days after receipt of Administrator's and/or the department's decision regarding the remission or mitigation. Whenever an appeal of a penalty is filed, the penalty shall become due and payable upon completion of all review

proceedings and upon the issuance of a final decision confirming the penalty in whole or in part.

(l) The City Attorney is authorized to commence and prosecute any necessary legal proceedings to recover the amount of any civil penalties lawfully imposed by the Administrator. The violator shall be responsible for any interest allowed by law, and reasonable attorneys' fees and costs, arising from any proceedings instituted to recover such civil penalties. Such legal proceedings include, but are not limited to the imposition of a lien upon real property.

(m) Appeals to the issuance of an Order to Cease and Desist and/or the imposition of civil penalties shall be in accordance with Section (V).

R396 Applications for any shoreline permit submitted after the commencement of any use, activity, or development requiring a shoreline permit pursuant to this Master Program, shall require the payment of application and review fees in the amount of three times the normal charge for application and review.

R397 In addition to, or in lieu of, any civil penalties or other enforcement actions authorized by this Master Program, the Act, WAC 173-27, or other provision of local, state, or federal law, any person found to have knowingly, willfully, or intentionally engaged in violations of the Act or this Master Program shall be guilty of a gross misdemeanor. Guilty parties shall be punished for each separate violation by a fine of not less than one-hundred dollars ($100) nor more than five thousand dollars ($5,000), by imprisonment in the county jail for not more than one (1) year, or by both fine and imprisonment. The third and all subsequent violations committed by the same person within any five year period shall each be subject to a fine of not less than five hundred dollars ($500), nor more than five thousand dollars ($5,000).

R398 Any person who violates any provision of the Act or the Program, or any permit issued pursuant thereto, shall be liable for all damage to public or private property that arises from that violation. This liability shall include money damages and the cost of restoring each affected area to its pre-violation condition. The City Attorney shall bring suit for damages under this subsection on behalf of the City. Private persons shall have the right to bring suit for damages under this subsection on their own behalf and on the behalf of all persons similarly situated. Once liability has been established for the cost of restoring an area, the court shall make provisions to ensure restoration is accomplished at the expense of the violator and within a reasonable period of time. In addition to such relief, the court shall award attorney's fees and costs of the suit to the prevailing party.

P. PROGRAM APPLICATION IN EVENT OF PROPERTY SALE, TRANSFER OR LEASE

R399 No building permit, septic tank permit, or any other development permit shall be issued for any parcel of land developed or divided in violation of this Master Program. All purchasers, transferees, or lessors of property shall comply with provisions of the Act and this Program, and with any conditions placed on such property pursuant to the same.

Q. CONFLICT OF PROVISIONS

R400 Where any provision of this Master Program conflicts with, or varies from, the intent or effect of other applicable provisions, the rule that most restricts the alteration, development and use of shorelands shall apply. Where any provisions of this Program conflict with, or vary from, the intent or effect of other applicable federal, state, county or municipal laws and regulations, the provisions of this Master Program shall control except where preempted by law. Exceptions to this provision shall only be granted when specifically provided by federal, state, or local law, or where specifically provided for within this Master Program.

R. DETERMINATION OF SETBACKS

R401 Setbacks shall be measured at right angles from the appropriate lot line to the wall of the structure(s). Where a structure without a wall faces the appropriate lot line, the setback shall be measured to the footing of any exterior post(s). Where a building has no such posts, the setback shall be measured to a point two feet inside the overhang measured from the drip line of the roof. Where a lot consists of more than one plat or lot of record, the term *appropriate lot line* shall entail those lot lines that form the boundaries of the entire contiguous ownership. Nothing in this subsection shall be construed to allow the illegal division of land.

S. TRANSFER OF AN APPROVED PERMIT OR VARIANCE

R402 An approved shoreline permit or variance may be transferred from the original applicant to any successors in interest so that they may continue the development, use or activity approved by the original permit. Each of the original permit or variance's conditions and requirements shall remain in effect for the life of the approved development, use or activity. The terms of the original permit shall only be modified in accordance with the applicable provisions of the Program.

T. PROGRAM INTERPRETATION AND MISCELLANEOUS PROVISIONS

R403 Nothing is this Program shall relieve any requirement to obtain any permit, certificate, license, or approval from state, county or municipal authorities.

R404 The Program shall not be interpreted, nor exceptions granted, to the benefit of any one private interest.

R405 Specific provisions of this Program shall be liberally construed in order to carry out the intent of the Act. They shall not be limited by the wording or phrasing of the section titles or headings under which they fall.

R406 Specific regulations and language contained in the Program shall not be interpreted or applied in a manner that thwarts or hinders the goals and policies of the Program or of the Act.

R407 All city authorities shall consider and use the goals and policies presented in this Program to guide, interpret and apply shoreline regulations.

U. UNCLASSIFIED USES

R408 Uses and modification activities not specifically addressed by this Program are prohibited and shall not be authorized without formal amendment of the document.

V. PERMIT MONITORING

R409 The City will track all shoreline permits and exemption activities to evaluate whether the Master Program is achieving no net loss. A no net loss report shall be prepared every eight years as part of the City's Master Program evaluation or Comprehensive Plan Amendment process.

W. EFFECTIVE DATE OF CARNATION'S SHORELINE MASTER PROGRAM

This Shoreline Master Program of the City of Carnation took effect at 12:00 a.m., the (Date of Ecology Approval) following its approval by the Carnation City Council and the Department.

VIII. DEFINITIONS

The following definitions shall apply throughout this Master Program. In addition, except to the extent that a different definition appears below, those definitions contained in the Carnation Municipal Code, the Shoreline Management Act of 1971 (RCW Chapter 90.58, as amended), or Chapter 173 of the Washington Administrative Code relating to implementation of the Shoreline Management Act, are hereby incorporated by reference into this Master Program.

Accessory use – Any structure or use incidental and subordinate to a primary use or development.

Act – The Shoreline Management Act of 1971 (Chapter 90.58 RCW), as amended.

Adaptive management - the modification of management practices and activities, including policies, regulations, physical improvements, and supporting programs, to address changing conditions and new knowledge regarding the issues and objectives in question. In terms of shoreline management practices, adaptive management involves the monitoring of shoreline conditions and the revision of regulatory and physical improvement measures to more fully achieve the objectives of RCW 90.58.020.

Administrator – Carnation's City Planner or his or her designee responsible for administering this shoreline Master Program.

Agricultural-Commercial. Activities that promote processing or sales of agricultural goods or that support the local economy through trade or tourism in association with agricultural activities are considered agricultural-commercial activities. While agricultural activities defined in this SMP are exempt from shoreline permits, agricultural-commercial activities are not exempt from permits under this Master Program. Agricultural-activities may include but are not limited to:

(a) "Agricultural tourism" refers to the act of visiting a working farm or any agricultural, horticultural or agribusiness operation for the purpose of enjoyment, education or active involvement in the activities of the farm or operation.

(b) "Nursery" means land or structures, such as greenhouses, used to raise plants, flowers and shrubs for sale.

(c) "Roadside stand" means a temporary use which is primarily engaged in the sale of fresh agricultural products, locally grown on- or off-site, but may include, incidental to fresh produce sale, the sale of limited prepackaged food products and non-food items. This use is to be seasonal in duration, open for the duration of the harvest season. For existing roadside stands see Agricultural Activities and Agricultural Equipment and Agricultural Facilities.

(d) "Value added operation" means any activity or process that allows farmers to retain ownership and that alters the original agricultural product or commodity for the purpose of gaining a marketing advantage. Value added operations may include bagging, packaging, bundling, pre-cutting, food and beverage service, etc.

(e) "Winery" means a facility where fruit or other products are processed (i.e., crushed, blended, aged, and/or bottled) and may include as incidental and/or

accessory to the principal use a tasting room, food and beverage service, places of public/private assembly, and/or retail sales area.

Agricultural activities – 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..

Agricultural products – includes, but is not limited to, horticultural, viticultural, floricultural, vegetable, fruit, berry, grain, hops, hay, straw, turf, sod, seed, and apiary products; feed or forage for livestock; Christmas trees; hybrid cottonwood and similar hardwood trees grown as crops and harvested within twenty years of planting; and livestock including both the animals themselves and animal products including, but not limited to, meat, upland finfish, poultry and poultry products, and dairy products.

Agricultural equipment – includes, but is not limited to:

(a) The following used in agricultural operations: Equipment; machinery; constructed shelters, buildings, and ponds; fences; upland finfish rearing facilities; water diversion, withdrawal, conveyance, and use equipment and facilities including, but not limited to, pumps, pipes, tapes, canals, ditches, and drains;
(b) Corridors and facilities for transporting personnel, livestock, and equipment to, from, and within agricultural lands;
(c) Farm residences and associated equipment, lands, and facilities; and
(d) Roadside stands and on-farm markets for marketing fruit or vegetables.

Agricultural facilities – See Agricultural equipment.

Agricultural land – means those specific land areas on which agricultural activities are conducted as of the date of adoption of a local master program pursuant to these guidelines as evidenced by aerial photography or other documentation. After the effective date of the master program, land converted to agricultural use is not exempt from permits requirements under the Master Program.

Amendment - means a revision, update, addition, deletion, and/or reenactment to this Shoreline Master Program.

Anadromous fish - means fish that spawn in fresh water and mature in the marine environment.

Applicant – see proponent

Approval - means an official action by a local government legislative body agreeing to submit a proposed shoreline master program or amendments to the department for review and official action pursuant to this chapter; or an official action by the department to make a local government shoreline master program effective, thereby incorporating the approved shoreline master program or amendment into the state master program.

Appurtenance – a structure or development which is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the ordinary high water mark and/or the perimeter of a wetland. Normal appurtenances include a garage, deck, driveway, utilities, fences; the installation of a septic tank and drainfield, and grading which does not exceed two hundred fifty (250) cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark. Local circumstances may dictate additional interpretations of normal appurtenances.

Aquaculture – the culture or farming of food fish, shellfish, or other aquatic plants and animals..

Associated wetlands - those wetlands which are in proximity to, and either influence or are influenced by, a lake or stream subject to the Act.

Average grade level - the average of the natural or existing topography of the portion of the lot, parcel, or tract of real property which will be directly under the proposed building or structure. In the case of structures to be built over water, average grade level shall be the elevation of the ordinary high water mark. Calculation of the average grade level shall be made by averaging the ground elevations at the midpoint of all exterior walls of the proposed building or structure.

Base flood – the flood having a one percent (1%) chance of being equaled or exceeded in any given year.

Best management practices (BMP) – procedures, methods and techniques designed and intended to minimize adverse impacts to ecological functions.

Boating Facilities – Boating facilities include marinas, both foreshore and backshore, dry- and wetmoorage types, boat launch ramps, piers, docks, covered moorages, boathouses, mooring buoys, and marine travel lifts.

Buffer– a of the zone contiguous with the shoreline waterbody or critical area that is designated and restricted to remain undisturbed by future use or development for the continued maintenance, function, and structural stability of the critical area, or to be ecologically enhanced in order to mitigate and protect aquatic, shoreland or wetland areas from the adverse impacts of uses or developments occurring on adjacent or abutting shoreland areas.

Channel – an open conduit for water, either naturally or artificially created, but which does not include artificially created irrigation, return flow, or watering channels for stock.

Channel migration zone (CMZ) - the area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.

City – the City of Carnation as represented through the action of the Administrator or other administrative office or body with the authority to implement the provisions of this Master Program.

Clearing – the act of removing or destroying trees, brush, ground cover, or other vegetation, including the removal of topsoil, by manual, mechanical, chemical, or other means. Customary and normal non-destructive pruning and trimming of vegetation for maintenance or safety purposes is not considered clearing.

Commercial Development **–** Commercial development comprises wholesale, retail, service and business uses, including, but not limited to hotels, motels, grocery markets, shopping centers, restaurants, shops, and offices. This definition excludes agricultural-commercial uses and commercial recreation facilities.

Compensation project - means actions specifically designed to replace project-induced shoreline function, critical area, or buffer losses. Compensation project design elements may include, but are not limited to, land acquisition, planning, construction plans, monitoring, and contingency actions.

Compensatory mitigation - means types of mitigation used to replace project-induced critical area and buffer losses or impacts.

Conditional Use **–** a use, development or activity that is classified as a conditional use by this Master Program or is not classified within this Master Program.

Critical areas - means any of the following areas or ecosystems and their buffers: wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas as defined by the Growth Management Act (RCW 36.70A.170).

Development –a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to the Act at any stage of water level.

Developed shoreline - those shoreline areas that are characterized by active uses or permanent structures located within shoreline jurisdiction.

Dredge material/spoil – the material removed by dredging.

Dredging – the removal, excavation or displacement of earth or sediments such as gravel, sand, mud, silt, benthos or debris from any stream or lake or associated wetlands.

Duration **(inundation/soil saturation)** - the length of time during which water stands at or above the soil surface (inundation), or during which the soil is saturated. As used herein, duration refers to a period during the growing season.

Ecological functions - those natural physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem, including, but not limited to:

(a) geohydrological processes;
(b) hydrographic response and flooding;
(c) sediment migration;
(d) erosion and bank stability;
(e) biological production;
(f) litter and woody debris production;
(g) sediment removal and filtration;
(h) microclimate and temperature control;
(i) wildlife habitat and refuge; and
(j) vegetation growth.

Ecologically altered shoreline - those shorelines that have had their vegetation or shoreline configuration substantially changed in a manner that significantly modifies or reduces the shoreline's natural functions and values.

Ecologically intact shoreline -- those shorelines and shorelands that retain the preponderance of their natural functions and values, as evidenced by vegetation and shoreline configuration. Generally, but not necessarily, ecologically intact shorelines are free of structural shoreline modifications, structures, and active human uses. In forested areas, they generally include vegetation with a diversity of species, multiple canopy layers, large woody debris, and edge habitat.

Educational, Cultural, Religious, Philanthropic, and Social development (E.C.R.P.S.) development – buildings, structures, lots, parcels or portions thereof which are used or intended to be used to provide for non-residential public and private not-for-profit activities. Such facilities include any structures or accessory uses normally applicable to E.C.R.P.S. development.

Emergency – an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with this Master Program In general, flooding or other seasonal events that can be anticipated and may occur, but that are not imminent, are not an emergency.

Emergency construction – any use or development necessary to protect property, the environment, or the public health and safety from damage or injury caused by an emergency. Emergency construction does not include development of new permanent protective structures where none previously existed.

Enhancement – modification or alteration of an existing resource to improve or increase its ecological functions without degrading other existing functions.

Erosion - means the process by which soil particles are mobilized and transported by natural agents such as wind, rain, frost action, or stream flow.

Exempt or Exemption – certain specific uses or developments which are exempt from the requirement to obtain a substantial development permit under the Act, Chapter 173-27-040 WAC, or this Master Program. Exemptions are construed narrowly and the applicant bears the burden of proof to establish that a particular exemption applies. An exemption from the substantial development permit process is not an exemption from the compliance with the Act, this Master Program, or other regulatory requirements.

Fair market value - the open market bid price for conducting the work, using the equipment and facilities, and purchasing of the goods, services and materials necessary, to construct or accomplish a development. This would normally equate to the cost of hiring a contractor to undertake the development from start to finish, including the cost of labor, materials, equipment and facility usage, transportation and contractor overhead and profit. The fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials;

Feasible- an action, such as a development project, mitigation, or preservation requirement, meets all of the following conditions.

(a) The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or if studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;
(b) The action provides a reasonable likelihood of achieving its intended purpose; and
(c) The action does not physically preclude achieving the project's primary intended legal use.

In determining infeasibility of a required action, the burden of proving infeasibility is placed upon the applicant. In determining an action's infeasibility, the reviewing agency may weigh the action's relative public costs and public benefits.

Federal Emergency Management Agency (FEMA) - means the agency that, oversees the administration of the National Flood Insurance Program (44 CFR).

Feedlot – an enclosure or facility used or capable of being used for feeding livestock of hay, grain, silage, or other livestock feed. Feedlots shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations.

Fill – the addition of soil, sand, rock, gravel, sediment, earth retaining structure, or other material to an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the elevation or creates dry land.

Flood – a general and temporary condition of partial or complete inundation of normally dry land areas from the unusual and rapid accumulation or runoff of surface waters from any source.

Floodplain – the land area susceptible to being inundated by stream derived waters with a one percent (1%) chance of being equaled or exceeded in any given year. The limits of this area shall be determined by reference to the Flood Insurance Rate Maps prepared by the Federal

Emergency Management Agency (FEMA) or other official studies, maps, or reports that are determined to be reliable and accurate in the discretion of the Administrator. Synonymous with the term "100-year floodplain".

Floodway – the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. The floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state. For purposes of this Master Program, the limit of the floodway shall be determined by reference to the Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (FEMA) or other official studies, maps, or reports that are determined to be reliable and accurate in the discretion of the Administrator.

Gabions – structures composed of masses of rocks, rubble or masonry held tightly together usually by wire mesh to form blocks or walls. Sometimes used on heavy erosion areas to retard wave action or as foundations for breakwaters or jetties.

Geotechnical report **or** ***geotechnical analysis*** -- a scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local shoreline geology and processes.

Grading – the movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

Guidelines – those standards adopted by the Washington Department of Ecology to implement the policy of chapter 90.58 RCW for regulation of use of the shorelines of the state prior to adoption of master programs. Such standards shall also provide criteria for local governments and the department in developing and amending master programs.

Height – the distance measured from the average grade level to the highest point of a structure. Television antennas, chimneys and similar appurtenances shall only be included in height calculations where they obstruct the view of a substantial number of adjoining shoreline uses. Temporary construction or equipment shall be excluded from any height calculation.

Hydraulic Project Approval (HPA) – a permit or other approval issued by the Washington State Department of Fish and Wildlife pursuant to the State Hydraulic Code Chapter 75.20.100-140 RCW.

Impervious surface – any hard surface area that: a) impedes the infiltration of stormwater into the soil mantle relative to pre-project or natural conditions; b) increases the quantity of stormwater that runs off a project site; and/or c) increases the rate at which stormwater runs off a project site. Impervious surfaces include, but are not limited to, areas paved with concrete or asphalt; covered buildings; mechanically compacted soils and compacted gravel surfaces with material sizes of 5/6-inch or less. Open and uncovered stormwater retention facilities shall not be considered impervious surfaces.

Industrial – refers to the production and distribution of construction materials, and the manufacture of intermediate and consumer durable goods. Machining and light assembly, concrete casting and some furniture construction represent light industrial uses.

In-stream structures– function for the impoundment, diversion, or use of water for hydroelectric generation and transmission (including both public and private facilities), flood control, irrigation, water supply (both domestic and industrial), recreation, or fisheries enhancement

Joint use – Rights of way including roads and bridges containing multiple uses such as utilities and vehicular travel or overwater structures that are constructed by more than one contiguous waterfront property owner or by a homeowner's association or similar group.

Lake – a body of standing water in a depression of land or expanded part of a river, including reservoirs, of twenty (20) acres or greater in total area. A lake is bounded by the ordinary high water mark or, where a stream enters a lake, the extension of the elevation of the lake's ordinary high water mark within the stream.

Levee – a large dike or embankment, often having an access road along the top, which is designed as part of a system to protect land from floods.

Limited utility extension - the extension of a utility service that:

(a) is categorically exempt under chapter 43.21C RCW for one or more of the following: natural gas, electricity, telephone, water, or sewer;
(b) will serve an existing use in compliance with this chapter; and
(c) will not extend more than two thousand five hundred (2,500) linear feet within the shorelines of the state.

Linear development(s) – roads, paths, trails and similar extended developments intended to provide for access by pedestrians or vehicles.

May - means the action is acceptable, provided it conforms to the provisions of this chapter.

Mitigation or Mitigation sequencing – the process of avoiding, reducing, or compensating for the adverse environmental impact(s) of a proposal, including the following actions, listed in the order of preference, (a) being the most preferred:

(a) avoiding the impact altogether by not taking a certain action or parts of an action;

(b) minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
(c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
(d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
(e) compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
(f) monitoring the impact and the compensation projects and taking appropriate corrective measures.

Monitoring - means the collection of data by various methods for the purpose of understanding natural systems and features, evaluating the impact of development proposals on such systems, and/or assessing the performance of mitigation measures imposed as conditions of development.

Must - means a mandate; the action is required.

Natural or existing topography -- the topography of the lot, parcel, or tract of real property immediately prior to any site preparation or grading, including excavation or filling.

Native species – those forms of plant and animal life that are historically indigenous to the Snoqualmie Valley. The current prevalence of any species shall not alone be sufficient criteria to qualify it as native.

Nonconforming use or development – a shoreline use or development which was lawfully constructed or established prior to the effective date of the Act or this Master Program, or amendments thereto, but which does not conform to present regulations or standards of this shoreline Master Program.

Non-point pollution – pollution not originating from a specific point, such as a wastewater outfall.

Nonwater-oriented uses -- those uses that are not water-dependent, water-related, or water-enjoyment.

Normal maintenance – those usual acts that are necessary to prevent a property's decline, lapse, or cessation from a lawfully established condition.

Normal protective bulkhead - those structural and nonstructural developments installed at or near, and parallel to, the ordinary high water mark for the sole purpose of protecting an existing single-family residence and appurtenant structures from loss or damage by erosion.

Normal repair – to restore a structure or development to a state comparable to its original condition including, but not limited to, its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse impacts to shoreline resources or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common

method of repair for the type of structure or development, and the replacement structure or development is comparable to the original structure or development including, but not limited to, its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse impacts to shoreline resources or environment.

Oil separator – specialized catch basins that are designed to trap oil and other materials lighter than water in the basin while allowing the water to escape through the drainage system. Commonly employed in parking lots and streets.

Ordinary high water mark (OHWM) - means the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting upland, provided that in any area where the ordinary high water line cannot be found, the ordinary high water line adjoining freshwater shall be the elevation of the mean annual flood.

Party of Record - all persons, agencies or organizations who have submitted written comments in response to a notice of application; made oral comments in a formal public hearing conducted on the application; or notified local government of their desire to receive a copy of the final decision on a permit; and who have provided an address for delivery of such notice by mail.

Periodic – occurring at regular intervals.

Permit -- any substantial development, variance, conditional use permit, or revision authorized under chapter 90.58 RCW.

Person - an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or agency of the state or local government.

Priority habitat - a habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes:

(a) comparatively high fish and wildlife density;
(b) comparatively high fish and wildlife species diversity;
(c) fish spawning habitat;
(d) important wildlife habitat;
(e) important fish and wildlife seasonal ranges;
(f) important fish and wildlife movement corridors;
(g) rearing and foraging habitat;
(h) refugia habitat;
(i) limited availability;
(j) high vulnerability to habitat alteration; and/or
(k) unique or dependent species.

A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (e.g., oak woodlands, eelgrass meadows). A priority habitat may also be described by a successional stage (e.g., old growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat element (e.g.,

consolidated marine/estuarine shorelines, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or non-priority fish and wildlife.

Priority species -- fish and wildlife species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels. A particular species shall be determined to be a priority species if the species meets any of the criteria listed below:

(a) Criterion 1. State-listed or state proposed species. State-listed species are those native fish and wildlife species legally designated as endangered (WAC 232-12-014), threatened (WAC 232-12-011), or sensitive (WAC 232-12-011). State proposed species are those fish and wildlife species that will be reviewed by the department (POL-M-6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.

(b) Criterion 2. Vulnerable aggregations. Vulnerable aggregations include those species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to congregate. Examples include heron rookeries, and fish spawning and rearing areas.

(c) Criterion 3. Species of recreational, commercial, and/or tribal importance. Native and nonnative fish and wildlife species of recreational or commercial importance and recognized species used for tribal ceremonial and subsistence purposes that are vulnerable to habitat loss or degradation.

(d) Criterion 4. Species listed under the federal Endangered Species Act as either proposed, threatened, or endangered.

Proponent – any person proposing or otherwise pursuing a development, use or activity subject to the provisions of this Master Program.

Public Facility – A facility owned by a federal, state or local government, including: 1. any flood control, navigation, irrigation, reclamation, public power, sewage treatment and collection, water supply and distribution, watershed development; 2. any public road or highway; 3. any other public building, structure, or system, including those used for educational, recreational, or cultural purposes, and 4. any park or recreation facility.

Public interest – the interest shared by the citizens of the state or community at large in the affairs of government, or some interest by which their rights or liabilities are affected including, but not limited to, an effect on public property or on health, safety, or general welfare resulting from a use or development.

RCW – Revised Code of Washington.

Recreational development – commercial and public facilities designed and used to provide recreational opportunities to the public. Examples include, but are not limited to, parks, camps, camping clubs, launch ramps, golf courses, viewpoints, trails, public access facilities, public parks and athletic fields, amusement parks, and outdoor recreation areas. Recreational uses that do not require a shoreline location, nor are related to the water, nor provide significant public access, are considered nonwater-oriented. For example, a recreation use solely offering indoor

activities would be considered nonwater-oriented. Commercial recreational development should be consistent with commercial development standards defined in the Master Program.

Recreational vehicle – a vehicle licensed, designed and operated for recreational purposes as temporary living quarters, which has a means of self-propulsion or is readily towable by a car or pickup truck, and is not used as a residence in any one location for extended periods of time (i.e., more than three months).

Rehabilitation* or *ecological rehabilitation -- the significant upgrading of ecological shoreline functions and values such as revegetation, removal of intrusive shoreline structures, and removal or treatment of toxic materials.

Residential development –Residential development entails one or more buildings, structures, lots, parcels or portions thereof that are designed, used or intended to be used as a place of abode for human beings. These include single-family residences, residential subdivisions, short residential subdivisions, attached dwellings, multifamily dwellings, and all accessory uses or structures normally associated with residential uses. Accessory residential uses include, but are not limited to, garages, sheds, tennis courts, swimming pools, parking areas, fences, cabanas, saunas and guest cottages. Hotels, motels, dormitories or any other type of overnight or transient housing are excluded from the residential category and must be considered commercial or ECRPS uses depending on project characteristics.

Revetment – facing of stone, concrete, etc., built to protect a scarp, embankment, or shore structure against erosion by currents.

Riparian – of, on, or pertaining to the banks of a river.

Riprap – a layer, facing, or protective mound of stones placed to prevent erosion, scour, or sloughing of a structure or embankment; also, the stone so used.

River delta - those lands formed as an aggradational feature by stratified clay, silt, sand, benthos, and gravel deposited at the mouths of streams where they enter a quieter body of water. The upstream extent of a river delta is that limit where it no longer forms distributary channels.

Salmonid - means a member of the fish family Salmonidae. In King County, Chinook, coho, chum, sockeye, and pink salmon; cutthroat, brook, brown, rainbow, and steelhead trout; kokanee; and native char (bull trout and Dolly Varden).

Sediment – any fine-grained material deposited by water or wind.

SEPA - the State Environmental Policy Act, RCW Chapter 43.21C, as amended.

Setback – a distance of specified length or width, required to be maintained between a proposed use, development, or structure and an identified boundary, such as a property line.

Shall - means a mandate; the action must be done.

Shorelands or shoreland areas -- those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the ordinary high watermark; floodways and contiguous floodplain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams and lakes subject to the provisions of this Master Program.

Shorelines – all of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except (i) shorelines of state-wide 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 (20) acres in size and wetlands associated with such small lakes.

Shoreline modifications - means those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, weir, dredged basin, fill, bulkhead, or other shoreline structure. They can include other actions, such as clearing, grading, or application of chemicals.

Shoreline stabilization – means actions taken to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind, or wave action. These actions include structural and nonstructural methods. Nonstructural methods include building setbacks, relocation of the structure to be protected, ground water management, planning and regulatory measures to avoid the need for structural stabilization.

Shorelines of statewide significance – a subset of "shorelines of the state" that the Act and the Guidelines have declared to be of paramount interest to all the people of the state. For purposes of this Master Program, the shorelines of the Tolt and Snoqualmie Rivers are declared to be shorelines of statewide significance.

Shorelines of the state –.the total of all "shorelines" and "shorelines of state-wide significance" within the state.

Shoreline function, or shoreline natural functions and values – See "Ecological Function."

Should - means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and this chapter, against taking the action.

Significant ecological impact - An effect or consequence of an action if any of the following apply:

(a) The action measurably or noticeably reduces or harms an ecological function or ecosystem-wide process.
(b) Scientific evidence or objective analysis indicates the action could cause reduction or harm to those ecological functions or ecosystem-wide processes under foreseeable conditions.

(c) Scientific evidence indicates the action could contribute to a measurable or noticeable reduction or harm to ecological functions or ecosystem-wide processes as part of cumulative impacts, due to similar actions that are occurring or are likely to occur.

Significant vegetation removal -- the removal or alteration of trees, shrubs, and/or ground cover by clearing, grading, cutting, chemical means, or other activity that causes significant ecological impacts to the functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping, where it does not affect ecological functions, does not constitute significant vegetation removal.

Sign – a board or other display containing words and/or symbols used to identify or advertise a place of business or to convey information.

Single-family residence (SFR) – a detached dwelling designed for and occupied by one family, including those structures and developments within a contiguous ownership which are a normal appurtenance.

SMA – the Shoreline Management Act of 1971, Chapter 90.58 RCW, as amended.

Soil bioengineering – an applied science that combines structural, biological and ecological concepts to control soil erosion, sedimentation and flooding using live plant materials as a main structural component.

Stream – means any portion of a channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the state, including areas in which fish may spawn, reside, or pass, and tributary waters with defined bed or banks, which influence the quality of fish habitat downstream. This includes watercourses which flow on an intermittent basis or which fluctuate in level during the year and applies to the entire bed of such watercourse whether or not the water is at peak level. This definition does not include irrigation ditches, canals, storm water run-off devices, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

Storm water - *s*urface water runoff collected and transported by a managed system.

Structure – a permanent or temporary edifice, surface or building, or any piece of work artificially built or composed of parts joined together in some definite manner, whether installed on, above, or below the surface of the ground or water. Structures include, but are not limited to, septic systems, sewers, and similar utilities. Structures do not include vessels and vehicles.

Substantial development – any development of which the total cost or fair market value, whichever is higher, exceeds two thousand five hundred dollars ($2,500), or any development that materially alters the normal public use of the water or shorelines of the state.

Substantially degrade -- to cause significant ecological impact.

Surface water runoff - water flow upon the surface of the ground from natural or artificial sources that is not absorbed into the soil but rather flows along the ground surface following the topography.

Topping - means the severing of main trunks or stems of vegetation at any place above twenty-five percent of the vegetation height.

Transmit – to send from one person or place to another by mail or hand delivery. The date of transmittal for mailed items is the date that the document is certified for mailing or, for hand delivered items, the date of receipt at the destination.

Transportation facilities – those structures and developments that provide for the movement of people, goods and services. These include roads and highways, railroad facilities, bridges, parking facilities, bicycle paths, trails and other related facilities.

Typically adapted - refers to a species being normally or commonly suited to a given set of environmental conditions, due to some feature of its morphology, physiology, or reproduction.

Upland – the dry land area above and landward of shorelands and shoreland areas.

Utilities, Primary and Accessory – services and facilities that produce, convey, store, or process communications, power, gas, oil, sewage, water, stormwater, waste, and similar. This Program classifies utilities as either accessory or primary activities.

(a) Primary utilities uses and activities involve public or private utility facilities designed to serve several users.

(b) Accessory utilities entail facilities that directly serve individual shoreline developments. For example, on-site utility features serving a primary use, such as water, sewer or gas lines to a residence, are "accessory utilities" and shall be considered a part of the primary use. Practically all types of development include accessory utilities.

Variance – a means to grant relief from the specific bulk, dimensional or performance standards specified in this Master Program and not a means to vary or allow an otherwise prohibited use on the shoreline.

Vegetation - means plant life growing below, at, and above the soil surface.

Vessel – ship, boat, barge, or any other floating craft which is designed and used for navigation and does not interfere with normal public use of the water.

WAC –Washington Administrative Code.

Watercourse - means perennial or intermittent waters, where the surface water flow is sufficient to produce a defined channel or bed. Watercourses also include natural waters modified by humans. Watercourses do not include irrigation ditches, canals, stormwater run-off facilities, or other entirely artificial watercourses.

Water-dependent – a use, or a portion of a use, which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operations. Examples of water-dependent uses may include ship cargo terminal loading areas, ferry and passenger terminals, barge loading facilities, ship building and dry docking, marinas, aquaculture, float plane facilities and sewer outfalls.

Water-enjoyment *use* -- 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 the location, design, and operation assures 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. Primary water-enjoyment uses may include, but are not limited to, parks with activities enhanced by proximity to the water; piers and other improvements facilitating public access to shorelines of the state; restaurants with water views and public access improvements; museums with an orientation to shoreline topics; aquariums; scientific/ecological reserves; resorts allowing public access to the shoreline; and mixed-use commercial; provided that such uses conform to the above water-enjoyment specifications and the provisions of this Master Program.

Waterfront – that portion of the shoreline or shoreland which is immediately adjacent to or abutting the OHWM.

Water-oriented *use* – any use that is water-dependent, water-related, or water enjoyment, or a combination of such uses.

Water-related *use* – a use, or a portion of a use, which 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 and/or more convenient.

Examples of water-related uses include, but are not limited to, professional services for water-dependent activities, warehousing of goods transported by water, hydroelectric generating plants, and log storage.

Water resource inventory area (WRIA) - means one of sixty-two watersheds in the state of Washington, each composed of the drainage areas of a stream or streams, as established in Chapter 173-500 WAC as it existed on January 1, 1997.

Watershed restoration plan - a plan, developed or sponsored by the state Department of Fish and Wildlife, the Department of Ecology, the Department of Natural Resources, the Department of Transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a

city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to chapter 43.21C RCW, the State Environmental Policy Act.

Watershed restoration project - a public or private project authorized by the sponsor of a watershed restoration plan that implements the plan, or a part of the plan, and that consists of one or more of the following activities:

(a) a project that involves less than ten (10) miles of streamreach, in which less than twenty-five (25) cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings;

(b) a project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; and/or

(c) a project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state, provided that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than two hundred (200) square feet in floor area and is located above the ordinary high water mark of the stream.

Water surface elevation – the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, or other reliable and accurate datum of floods of various magnitudes and frequencies in the floodplains of riverine areas.

Wetlands or wetland areas -- areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

Appendix A: Critical Areas Regulations

APPENDIX A
SHORELINE CRITICAL AREAS REGULATIONS

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1.111 Purpose.

The purpose of SMP Appendix A is:
A. To protect the public health, safety and welfare by preventing adverse impacts caused by development;
B. To protect the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, landslides, soils subsidence or steep slope failure;
C. To implement the goals, policies, guidelines and requirements of the city of Carnation comprehensive plan and the Washington State Growth Management Act; and
D. To preserve and protect critical areas, with special consideration for the habitat of anadromous fisheries, as required by the Washington State Growth Management Act by regulating development within and adjacent to the fisheries, while allowing use of private property.

1.112 Applicability.

The city of Carnation (city) shall regulate all uses, activities, and developments within or adjacent to, or likely to affect one or more critical areas, consistent with the provisions of SMP Appendix A. SMP Appendix A

Critical areas regulated by SMP Appendix A include:

A. Wetland areas;
B. Critical aquifer recharge areas;
C. Fish and wildlife habitat conservation areas;
D. Geologically hazardous areas;
E. Frequently flooded areas.

1. The provisions of SMP Appendix A shall apply to all land activities within the city's shoreline jurisdiction whether or not a permit or authorization is required.
2. The city shall not approve any development proposal or otherwise authorize alterations to the condition of any land, water, or vegetation nor permit the construction or alteration of any structure or improvement in, over, or on a critical area or associated buffer, without first assuring that the proposal complies with the requirements of SMP Appendix A and all other applicable regulations in the SMP.
3. When the provisions of this SMP, SMP Appendix A, or any other provisions of the city's municipal code are in direct conflict with each other, or with other federal or state regulations, the most restrictive provision shall apply.

1.113 Designation of critical areas.

A. The city has designated critical areas by defining their characteristics. An applicant for a development proposal shall determine, and the city shall verify on a case-by-case basis, in accordance with the definitions in this Section 1.800, whether or not a regulated critical area exists on or within three hundred feet of the subject property that could be subject to SMP Appendix A.

B. The following resources may help determine the likelihood that a critical area exists on the subject or approximate property: City of Carnation Map Folio (wetlands, geologically hazardous areas, and frequently flooded areas), National Wetlands Inventory maps, U.S. Geological Survey (USGS) landslide hazard and seismic hazard maps, U.S.G.S. topographic maps, Washington Department of Fish and Wildlife (WDFW) Management Recommendations for Washington's Priority Species (WDFW), WDFW Priority Habitats and Species maps and reports, Federal Emergency Management Administration (FEMA) flood insurance maps, East King County groundwater management plan maps, the King County channel migration zones map, and the city's sewer line map.

C. The actual type, extent, and boundaries of critical areas shall be designated by the city upon consultation with qualified persons with direct knowledge of the project and the project limits and according to the procedures, definitions, and criteria established in SMP Appendix A.

D. The city shall maintain maps or descriptions of all previously designated critical areas and these maps or descriptions shall be available for review at City Hall by the public during normal business hours.

1.114 Applicant disclosure.

An applicant for a development proposal shall disclose the presence of any critical areas on the subject property and to the extent known by, or readily available to the applicant, any mapped or identifiable critical areas within three hundred feet of the subject property.

1.115 Pre-application conference.

When an applicant knows or believes that critical areas are located on or near the subject property, the applicant is encouraged, and may be required, to contact the city prior to finalizing development plans and applying for development permits. Early disclosure of critical areas and potential state or federal approvals also necessary for the project will reduce delays during the permit review process.

1.116 Submittal requirements.

In addition to the information required for a shoreline or other development permit, any development activity that is subject to the provisions of SMP Appendix A may be subject to a critical areas report as described under Section 1.200(E), provided that these additional requirements shall not apply to any action allowed in Section 1.122.

1.117 Notice on title.

The owner of any real property containing a regulated critical area or buffer on which a development proposal is submitted and approved, or on which an off-site mitigation area is approved, shall file a notice with the records division of King County to inform subsequent purchasers of the real property that regulated critical areas exist (excluding soil liquefaction and floodplain outside of the floodway or channel migration area).

A. The notice shall state:
1. The presence of the critical area, buffer, or mitigation area on the property;
2. The allowable use of this property; and
3. The limitations that may exist on actions in, or affecting, the critical area, buffer, and/or mitigation area.

B. The notice on title shall run with the property.

C. The notice on title will not be required if the work on existing structures or uses is valued at less than fifty percent of the assessed value of the existing structure or use, and if it does not increase the area of impact to the critical area and/or its buffer, except where the work is for an off-site mitigation area.

D. This notice on title shall not be required for a development proposal by a public agency or public or private utility:
1. Within a recorded easement or right-of-way; or

2. Where the agency or utility has been adjudicated the right to an easement or right-of-way.

E. The applicant shall submit proof that the notice has been filed for public record for all affected real property prior to building permit approval or prior to recording of the final plat in the case of subdivisions.

1.118 Inspection and right of entry.

The Shoreline Administrator or his designee may inspect any development activity necessary to enforce the provisions of SMP Appendix A. The applicant will consent to site visits by the Shoreline Administrator or his designee during regular business hours to make reasonable inspections to verify the applicant's information and to verify that work is being performed in accordance with the approved plans, permits, and the requirements of SMP Appendix A and applicable provisions of the SMP. For on-site and off-site mitigation areas, the applicant shall grant, or acquire approval for, right-of-access for the entirety of construction and the required monitoring period.

1.119 Enforcement.

The provisions of SMP Section VII.O (Enforcement and Penalties) shall regulate the enforcement of SMP Appendix A.

1.120 Fees.

A. The development proposal applicant must initiate, prepare, submit, and bear the expense of all required reports, assessments, studies, plans, reconnaissances, peer review by qualified consultants, and other work prepared in support of, or necessary for, compliance with the city's critical areas review process.
B. The applicant shall be responsible for monitoring and maintaining critical areas if such action is required as a condition of permit approval. Performance bonds may be withheld until all work is satisfactorily completed, including post-construction mitigation activity.
C. The applicant shall also be responsible for the city's review or peer review of performance standards as constructed, and for necessary monitoring and maintenance reports.

1.121 Appeals.

Appeals of administrative decisions shall be governed by SMP Chapter VII.

1.122 Allowed Activities.

The following developments, activities, and associated uses are allowed without preparation of a critical areas report provided the action uses reasonable methods to avoid potential impacts to critical areas consistent with mitigation sequencing, does not degrade a critical area, and does not ignore the risk from natural hazards. The party responsible for performing the allowed activity shall promptly restore, rehabilitate, or replace the disturbed critical area or buffer.
A. Emergencies.

1. Alterations in response to emergencies that threaten public health, safety, welfare or the risk of damage to private property, and those that require remedial or preventative action in a time frame too short for compliance with SMP Appendix A, as long as the alteration is reported to the Shoreline Administrator or his designee immediately. The city manager or his designee shall confirm the presence of an emergency and shall determine if mitigation will be required to protect or repair the damaged critical area.

Alterations in response to emergencies that create an impact on a critical area or its buffer shall use reasonable methods to address the emergency. In addition, those actions must have the least possible impact to the critical area and/or its buffer.

2. The person or agency undertaking the action shall fully restore and/or mitigate any impacts to the critical area and buffers resulting from the emergency action in accordance with the critical area report and the mitigation plan prepared in accordance with SMP Appendix A and as approved by the city manager or his designee.

B. Operation, maintenance or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems, including routine vegetation management activities when performed in accordance with approved best management practices, if the activity does not increase risk to life or property as a result of the proposed operation maintenance or repair, or when sufficient data is shown indicating that such harvesting would reduce flooding potential. All alterations to existing dikes and levees must be performed by government entities or their designees, unless the alteration qualifies as an emergency under subsection A of this section.

C. Gravel harvesting by a public agency when in accordance with local, state, and federal regulations only when there is an imminent threat that material may cause flooding or there is a potential for migration of the riverbed.

D. Activities within the improved right-of-way. Replacement; modification, installation or construction of utility facilities, lines, pipes, mains, equipment or appurtenances; not including substations, when such facilities are located within the improved portion of the public right-of-way or a city-authorized private roadway. These activities shall be subject to the following:

1. The activity shall result in the least possible impact and have no practical alternative with less impact on the critical area and/or its buffer;

2. An additional, contiguous and undisturbed critical area buffer shall be provided, equal in area to the disturbed critical area buffer;

3. Retention and replanting of native vegetation shall occur wherever possible along the right-of-way improvement and resulting disturbance; and

4. The activity does not alter a wetland or watercourse such as culverts or bridges, or result in the transport of sediment or increased stormwater.

E. Minor utility projects that are subject to local permits in accordance with the criteria below and that do not significantly impact the functions and values of a critical area(s). Utility projects that have minor or short-term impacts to critical areas may include the placement of a utility pole, street sign, anchor, vault, or other small component of a utility facility provided that such projects are constructed with best management practices and additional restoration measures are provided. Minor activities shall not result in increases of impervious surface. Such exemptions shall meet the following criteria:

1. There is no practical alternative to the proposed activity that has fewer adverse impacts on critical areas, and, all attempts have been made: (a) to avoid impacts, and (b) to minimize impacts;

2. The minor utility project will not change or diminish the overall critical area hydrology or flood storage capacity;
3. The minor utility project shall be designed and constructed to prevent spills and leaks into critical areas;
4. The minor utility project will not reduce the existing functions and values of the affected critical areas;
5. To the maximum extent practicable, utility corridor access for maintenance shall be limited to perpendicular access points into the critical area or buffer rather than by a parallel access road; and
6. Unavoidable impacts will be mitigated pursuant to an approved mitigation plan.

F. Existing and Ongoing Agricultural Activities. Existing and ongoing agricultural activities normal or necessary to general farming conducted according to industry-recognized best management practices including raising crops or livestock grazing provided no alteration of flood storage capacity or conveyance occurs. The installation of raised livestock flood sanctuary area (critter pads) constructed within the floodplain and maintained to the standards of the soil conservation service and the best management practices approved by the city shall also be exempt from the provisions of SMP Appendix A.

G. New accessory structures and additions to structures, provided that the lot coverage does not exceed a cumulative additional five hundred square feet of impervious surface, and provided that the new construction or related activity does not further intrude into a critical area or buffer and that it is subject to flood hazard areas reconstruction restrictions.

H. Activities involving those wetlands or watercourses intentionally created from nonwetland sites, including grass-lined swales, irrigation and drainage ditches, detention facilities, wetlands constructed to provide water quality treatment in conjunction with a local, state or federal water quality permit, and landscape features, except wetlands, streams, or watercourses that have documented use by state or federally listed species or wetlands created as compensatory mitigation.

I. Vegetation management that is part of the ongoing maintenance of facilities, infrastructure, public rights-of-way, or utilities, provided the vegetation management activity does not expand further into the critical area or its buffer.

J. Passive recreation such as hiking, fishing, and wildlife viewing that does not involve the construction of trails.

K. Vegetation clearing and soil disturbance with less than five hundred square feet disturbance to critical areas associated with land surveying, geotechnical investigations, water well drilling, or other site work completed in conjunction with the preparation of a critical areas report.

1.126 Variance.

A variance from the requirements of SMP Appendix A may be authorized by the hearing examiner through the Shoreline Variance process in accordance with the procedures set forth in SMP Section VII.

1.127 Mitigation required.

Any authorized alteration to a wetland or fish and wildlife habitat conservation area or its associated buffer, as approved under Sections 1.121 through 1.125 of SMP Appendix A, shall be

subject to conditions established by the city and shall be required to mitigate alterations under an approved mitigation plan per Section 1.200(I).

1.130 Density credits.

A. Critical areas and their buffers may be used in the calculation of allowed residential density whenever two or more residential lots or two or more multifamily dwelling units are created, subject to the following limitations:

1. Density credits shall be allowed for all critical areas, with the exception of wetlands or streams, and all critical area buffers, in accordance with the following table:

Percent of Site in Buffers and/or Critical Areas	Density Credit
1--10 percent	100 percent
11--20	90
21--30	80
31--40	70
41--50	60
51--60	50
61--70	40
71--80	30
81--90	20
91--99	10

2. The density credit may only be utilized within the development proposal site. The applicant may cluster and configure the site's development to accommodate the transfer of density subject to the requirements of this title, but may not change the type of uses allowed within the underlying zone.

B. For development proposals involving sites containing critical areas and associated critical area buffers, the Shoreline Administrator or his or her designee shall determine allowable dwelling units for residential development proposals based on the formulas below.

1. The percentage of the lot containing critical areas, excluding wetlands and streams, and all critical area buffers, shall be calculated based on the critical areas report submitted as per SMP Appendix A.

2. The amount of density credit allowed shall be calculated based on the table in subsection (A)(1) of this section.

3. The minimum permissible lot size shall be calculated as follows:

a. Determine the Critical Area Yield: Multiply the area containing critical areas or their buffers by seventy percent, and divide that number by the minimum lot size of the underlying zone. Multiply the quotient by the density credit percentage from the table in subsection (A)(1) of this section. Round upward or downward to the nearest whole number.

b. Determine the Noncritical Area Yield: Multiply the area that does not contain critical areas or their buffers by seventy percent, and divide that number by the minimum lot size of the underlying zone. Round upward or downward to the nearest whole number.
c. Determine the Total Yield: Add the critical area yield to the noncritical area yield.
d. Determine the ratio by dividing the noncritical area yield by the total yield.
e. Multiply the ratio by the minimum lot size of the underlying zone to determine the minimum size of the lots that may be subdivided in the area that does not contain critical areas.
4. To the extent that application of the above formula may result in lot sizes less than the minimum allowed by the underlying zone, they are authorized; provided, that in no case shall the lot sizes resulting from the density credit be smaller than sixty-five percent of the minimum lot size of the underlying zone. In any case, all other established setbacks and requirements of the underlying zone shall be met, pursuant to this title.

1.200 General provisions.

The city will apply the following general methods and mechanisms to accomplish the purposes of its SMP Appendix A. This section shall be applied to all approved development applications and alterations in shoreline jurisdiction where critical areas may be affected.

A. General Approach. Protecting critical areas shall observe the following sequence, unless it is part of a restoration plan for a significantly degraded wetland or fish or wildlife habitat conservation area, or buffer, described under subsection (B)(3), below:
1. Avoid the impact by refraining from certain actions or parts of an action;
2. Where impact will not be avoided to critical areas or their buffers, the applicant shall demonstrate that the impact meets the criteria for granting a Shoreline Variance under SMP Section 7.VII;
3. Minimize the impacts by limiting the degree or magnitude of the action by using affirmative steps to avoid or reduce impacts or by using appropriate technology;
4. Rectify the impact by repair, rehabilitation, or restoration of the affected critical areas;
5. Reduce or eliminate the impact over time by preservation and maintenance operations;
6. Compensate for the impacts with ways to create, replace, enhance or provide substitute resources or critical areas.

B. Buffers.
1. Measurement of Buffers. All buffers shall be measured from the critical area boundary as surveyed in the field or as otherwise designated or described by the Shoreline Administrator. The width of the buffer shall be determined according to the methods and procedures described in SMP Appendix A pursuant to each type of critical area affected.
2. Standard Buffers. The standard buffer widths presume the existence of a native forest vegetation community in the buffer zone adequate to protect the critical area functions and values at the time of the proposed activity. If the vegetation or protection area is inadequate, the city may require an increase in the buffer width or additional native plantings within the standard buffer width. Provisions to reduce or to average buffer widths to obtain optimal habitat value are provided under the performance standards for each critical area.
3. Significantly Degraded Wetlands, Fish and Wildlife Habitat Conservation Areas, and Buffers. In areas where the functions of wetlands and fish and wildlife habitat conservation areas

or buffers are already significantly degraded prior to the effective date of SMP Appendix A, restoration of the degraded areas may be more beneficial than avoidance. Certain expanded uses shall be allowed at the discretion of the Shoreline Administrator or his designee if the applicant's critical areas report demonstrates that greater habitat functions can be obtained in the affected sub-drainage basin as a result of mitigation.

4. Averaging Buffers. The Shoreline Administrator or his designee will consider allowing buffer averaging only when the averaged buffer area width will not adversely impact the critical area and/or buffer functions and values. At a minimum, any proposed buffer averaging shall meet the following criteria:

a. The total averaged buffer area is not less than the size of the standard buffer before applying averaging;

b. The buffer width shall not be reduced by more than twenty-five percent at any one point as a result of the buffer averaging;

c. The averaged buffer area shall be enhanced;

d. The additional buffer is contiguous with the standard buffer; and

e. Encroachment into the buffer does not occur waterward of the top of an associated steep slope or into a channel migration zone.

5. Reducing Buffers. The city manager or his designee may reduce up to twenty-five percent of the critical area buffer width requirement only if a critical area report sufficiently demonstrates the following:

a. The applicant has demonstrated that mitigation sequencing (avoid, minimize, mitigate) efforts have been appropriately applied;

b. The proposed buffer reduction shall be accompanied by a mitigation plan per subsection I of this section that includes enhancement of the reduced buffer area;

c. The reduction will not adversely affect water quality;

d. The reduction will not destroy, damage, or disrupt a significant habitat area;

e. The reduction is necessary for reasonable development of the subject property;

f. Where a legally established roadway transects the buffer, the minimum buffer width may be reduced to the edge of the roadway if the part of the buffer sought to be reduced:

i. Does not provide additional protection to the proposed development or the stream, and

ii. Does not perform any biological, geological, or hydrological buffer functions to undisturbed portions of the streams or its buffer;

g. This section may not be used to reduce the buffers of the Tolt or Snoqualmie Rivers.

C. Land Segregation. Subdivisions, short subdivisions, boundary line adjustments, and planned residential developments of land located in critical areas and associated buffers are subject to the following:

1. Land that is wholly within a wetland or fish and wildlife habitat conservation area or associated buffer may not be subdivided or the boundary line adjusted except as approved under a Shoreline Variance.

2. Land that is partially within a wetland or fish and wildlife habitat conservation area or associated buffer area may be subdivided, or the boundary line adjusted, provided that an accessible and contiguous portion of each new or adjusted lot is:

a. Located outside the critical area and buffer; and

b. Sizable enough to accommodate the intended (and allowable) use.

D. Marking and/or Fencing.
1. Survey Stakes. Development proposals shall include permanent survey stakes delineating the boundary between adjoining property and critical area tracts using iron or concrete markers as established by current survey standards.
2. Permanent Signs. The applicant shall identify the boundary between a critical area tract and contiguous land with permanent signs.
3. The Shoreline Administrator or his designee may require such fencing subsequent to approval of the development proposal when intrusions threaten conservation of critical areas. To ensure compliance, the Shoreline Administrator or his designee may use any appropriate enforcement actions including, but not limited, to fines, abatement, or permit denial.

E. Critical Areas Reports/Studies.
1. When an applicant submits a development proposal, the proposal shall indicate whether any critical areas or buffers are located on or could be within three hundred feet of the proposed development site. The city staff shall visit the proposed development site and review the information submitted by the applicant along with any other available information. The city staff shall notify the applicant that a critical areas report is required if the city determines that the proposed site may include, is adjacent to, or that the proposal could have probable adverse impacts to critical areas (except that critical area reports for CARAs shall only be required as specified in Section 1.400(D)). If required, the report shall be undertaken at the applicant's expense. A critical areas report shall meet the following minimum requirements:
a. Critical area reports shall be written by a qualified professional, as defined in the definitions section of SMP Appendix A. A critical areas report shall include all information required pursuant to subsection (E)(2) below.
b. When unavoidable impacts to critical areas or their buffers would occur, a monitoring and maintenance program shall be designated by a qualified professional and the applicant shall conduct monitoring to evaluate the effectiveness of mitigating measures.
c. Studies generated as part of an expanded SEPA environmental checklist or an environmental impact statement (EIS) may qualify as a critical areas report if the project is described in enough detail to provide an evaluation of site-specific impacts and mitigation measures.
2. General Critical Areas Report Requirements.
a. A critical areas report shall have three components: (i) a site analysis, (ii) impact analysis, and (iii) proposed avoidance and mitigation measures. More or less detail may be required for each component depending on the size of the project, severity of the intrusion, and the potential impacts. When adequate information is otherwise available to document compliance with SMP Appendix A, the Shoreline Administrator or his designee may waive the requirement of any of the three components.
b. Unless already available in the development application, all studies shall contain the following information in addition to the requirements specified for each critical area.
i. Site map of the project area at a one is to twenty or larger scale dimensioned, including:
(A) Reference streets and property lines.
(B) Existing and proposed easements, rights-of-way, trail corridors and structures.
(C) Contour intervals (two feet); steep slope areas to be highlighted.
(D) Vicinity map showing project location in relation to city-designated critical areas as shown on mapping available from the city.
(E) The edge of the one-hundred-year floodplain, and edge of the floodway if appropriate.

(1) Channel migration zone boundaries if appropriate;
(2) Shoreline Master Program environment designation;
(3) Location of wetlands and fish and wildlife habitat conservation areas or other critical areas on the site;
(4) Hydrology. Show surface water features both on and adjacent to the site; show any water movement into, through, and off the project area; show stream and wetlands classifications; show seeps, springs, and saturated soil zones; label wetlands not found on the city inventory maps as un-inventoried;
(5) Identification of all site preparation, clearing and grading activities and dimensioned location of proposed structures, roads, stormwater facilities, impervious surfaces, and landscaping within three hundred feet of critical areas;
(6) All drainage plans for discharge of stormwater runoff from developed areas;
(7) Location of standards and proposed buffer and building setback lines (if required or proposed);
(8) Location of any existing or proposed critical area tracts.
ii. Written report detailing.
(A) How, when, and by whom the report was performed (including methodology and techniques);
(B) Seasonal and weather conditions during and prior to any field studies if relevant to conclusions and recommendations;
(C) Description of the project site and its existing condition, including degraded critical areas;
(D) Description of existing critical area and buffer functions and values;
(E) Description of habitat features present and determination of actual use of the critical area by any endangered, threatened, rare, sensitive, or unique species of plants or wildlife as listed by the federal government or state of Washington;
(F) The total acreage of the site in each type of critical area(s) and associated standard buffers;
(G) The proposed action, including but not limited to description of filling, dredging, modification for stormwater detention or discharge, clearing, grading, restoring, enhancing, grazing or other physical activities that change the existing vegetation, hydrology, soils or habitat;
(H) When alteration to a critical area or its buffer is proposed provide an explanation why the impact is unavoidable and how it meets the criteria for a defined exception or allowed use;
(I) Description of potential environmental impact of the proposed project to the critical area(s) and demonstration of mitigation sequencing approach, and description of any proposed mitigation measures;
(J) Habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site critical area functions;
(K) The mitigation measures and best management practices proposed to avoid or lessen the project impacts (during construction and permanently);
(L) When alteration to the critical area or its buffer is proposed, include a mitigation plan as specified by SMP Appendix A;
(M) A discussion of ongoing management practices that will protect critical areas and their buffers after the project site has been developed, including proposed monitoring and maintenance programs;
(N) Description of local, state, and federal regulations and permit requirements that regulate the proposed development, use, and/or critical area and that apply to the proposal.

F. Mitigation Timing.

1. Mitigation shall be provided prior to the authorized activity that results in unavoidable impacts, except in the case of restoration and enhancement. For restoration and enhancement, mitigation shall be completed immediately following disturbances and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and water quality. Off-site mitigation activities shall be completed prior to initiating the activity or development. Any proposed deviations to mitigation timing based on seasonal considerations shall be approved in advance by the Shoreline Administrator or his designee.

2. The Shoreline Administrator or his designee shall have the authority to impose the mitigation measures identified in SMP Appendix A or recommended in a critical areas report as a condition of any development approval or other activity creating the need for mitigation.

The Shoreline Administrator or his designee may alter the mitigation recommended in a critical areas report if the recommendations are not consistent with best available science or otherwise fail to adequately protect critical areas. Any mitigation measures imposed through SMP Appendix A shall be consistent with constitutional principles of nexus and proportionality.

The hearing examiner and city council shall have the authority of the Shoreline Administrator to impose mitigation measures to the extent that they have authority to review a development application. The mitigation measures identified herein may also be imposed through the Washington State Environmental Policy Act ("SEPA"), Chapter 43.21C RCW. SMP Appendix A is adopted as a SEPA policy for purposes of exercising SEPA substantive authority as authorized by RCW 43.21C.060. In the event of conflicts between mitigation imposed by SMP Appendix A or any other law, the more restrictive mitigation measures shall prevail.

3. The Shoreline Administrator or his designee may waive any or all of the requirements of a critical area report if the applicant demonstrates that the required information will not be of any benefit in assessing and mitigating adverse impacts.

G. General Mitigation Requirements. The following section provides general mitigation requirements applicable to alteration of critical areas. Additional specific mitigation requirements are found under the sections for the particular type of critical area.

1. When a critical area or its buffers has been altered on the development site prior to approval of the development permit in violation of city regulations, and, as a consequence, the functions and values have been degraded, restoration and/or rehabilitation is required.

Restoration/rehabilitation is required when a critical area or its buffer has been altered during the construction of an approved project as a result of the failure of the applicant to disclose the occurrence of the critical area on the property. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan.

2. When a critical area or its buffers will be temporarily altered during the construction, restoration and/or rehabilitation is required. At a minimum, all impacted areas shall be restored to their previous conditions to comply with the approved mitigation plan.

3. Compensation includes replacement or enhancement of the critical area or its buffer depending on the scope of the approved alteration and what is needed to maintain or improve the critical area and/or buffer functions. The goal of compensation is no net loss of critical area/or buffer functions on a development site. The Shoreline Administrator or his designee may approve compensation to include replacement of similar critical areas or buffer functions through

the creation of enhancement or rehabilitation of other types of critical areas or buffers as part of a mitigation bank or other pre-approved off-site mitigation proposal. Compensation for approved critical area or buffer alterations shall meet the following minimum performance standards and shall occur in compliance with the approved mitigation plan:

a. As compensation for approved alterations, a created, restored, or enhanced critical area buffer shall meet the category requirements of the created, restored, or enhanced critical area. Created, restored, or enhanced buffers shall be fully vegetated and shall not include lawns, walkways, driveways and other mowed or paved areas.

b. On-site and In-kind. Unless otherwise approved, all critical area impacts shall be compensated by restoration or creation of replacement areas that are in-kind, on-site, and of similar or better critical area category. Mitigation shall occur prior to, or concurrent with, the approved alteration and shall have a high probability of success.

c. Off-site Mitigation. When the applicant demonstrates that greater biological and hydrological functions and values will be achieved, the Shoreline Administrator or his designee may consider, and approve, off-site compensation. Off-site compensation may include restoration, creation, or enhancement of other types of critical areas than those impacted. The compensation ratios specified under the "on-site" compensation section for each critical area shall apply for off-site compensation. At no time shall the off-site mitigation result in a smaller mitigation area than the area of the impacted critical area or buffer.

d. Increased Replacement Ratios. The Shoreline Administrator or his designee may increase the ratios under the following circumstances:

i. Uncertainty exists as to the probable success of the proposed restoration or creation due to an unproven methodology or applicant; or

ii. The applicant proposes out-of-kind mitigation; or

iii. A significant time period will elapse between impact and replication of wetland functions; or

iv. The impact was unauthorized.

e. Decreased Replacement Ratios. The Shoreline Administrator or his designee may decrease the ratios specified under the compensation section of each critical area as required from the "on-site" ratios, when all of the following criteria are met:

i. A minimum replacement ratio of one to one (no net loss) will be maintained;

ii. Documentation by a qualified specialist demonstrates that the proposed mitigation actions have a very high rate of success;

iii. Documentation by a qualified specialist demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the critical area being impacted; and

iv. The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful as established through the implementation of a monitoring program.

f. Critical Area Enhancement as Mitigation.

i. Impacts to critical areas may be mitigated by enhancement of existing significantly degraded critical areas only after a one to one minimum acreage replacement ratio (one to one linear feet ratio for streams) has been satisfied. Development applications that propose to enhance critical areas must produce a critical areas report that identifies how enhancement will increase the functions and values of the degraded critical areas and how this increase will adequately mitigate for the loss of critical area function at the impact site.

ii. At a minimum, enhancement acreage shall be double that of the acreage (or linear feet for streams) required for creation under the "on-site" compensation section specified under each critical area. The ratios shall be greater than double the required acreage (or linear feet) when the enhancement proposal would result in minimal gain in the performance of critical area functions currently provided in the critical area.

H. Best Available Science. Any approved mitigation plan to compensate for impacts to a critical area or its buffer shall be supported by the best available science documented at the time of the application.

I. Mitigation Plans.

1. Mitigation or alterations to critical areas shall achieve equivalent or greater biological functions for wetlands and fish and wildlife conservation areas, and shall include mitigation for adverse impacts that would affect property beyond to the proposal site. Mitigation sites for wetlands, streams, and fish and wildlife habitat conservation areas shall be located to achieve contiguous habitat corridors in accordance with a mitigation plan that is part of an approved critical areas report to minimize the isolating effects of development on habitat areas. Mitigation of aquatic habitat shall be located within the same subbasin as the area disturbed unless the applicant proposed to utilize available mitigation bank credits pursuant to this section. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

2. The scope and content of a mitigation plan shall be decided on a case-by-case basis. As the impacts to the critical area increase, the mitigation measures to offset these impacts also will increase in number and complexity. During its review of the requested critical area studies, the city will determine which of the components listed below in subsection (I)(3) shall be required as part of the mitigation plan. Key factors in this determination shall be the size and nature of the development proposal, the nature of the impacted critical areas, and the degree of cumulative impacts on the critical area from other development proposals.

3. At a minimum, the following components shall be included in a complete mitigation plan:

a. Baseline Information. Provide existing conditions information for both the impacted critical areas and the proposed mitigation site as described in "general critical area report requirements" and "additional report requirements" for each critical area.

b. Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensation proposed and including:

i. A description of the anticipated impacts to the critical areas, the mitigating actions proposed, and the purposes of the compensation measures, including the site selection criteria, identification of compensation goals, identification of resource functions, and dates for beginning and completing site compensation construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area; and

ii. A review of the best available science supporting the proposed mitigation.

c. Performance Standards. The mitigation plan shall include measurable performance standards to evaluate whether or not the goals and objectives of the mitigation plan have succeeded and whether or not the plan meets the requirements of SMP Appendix A. Performance standards may include water quality standards, species richness and diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.

d. Detailed Construction Plan. These are landscape and/or engineering drawings and the written specifications and descriptions of mitigation technique. This plan should include the proposed construction sequencing, grading and excavation details, erosion and sedimentation control features, a native planting plan, and detailed site diagrams and any other drawings appropriate to show construction techniques or anticipated final outcome.
e. Monitoring and/or Evaluation Program. The mitigation plan shall include a program for monitoring construction of the compensation project, and for assessing a completed project, as detailed under subsection J below.
f. Contingency Plan. When monitoring or evaluating the plan indicates that the applicant has not met the performance standards, a contingency plan shall identify potential courses of action and any corrective measures to be taken.

J. Monitoring.
1. When a development application to alter critical areas or their buffers is approved or where alterations occur in violation of SMP Appendix A, the city will require long-term monitoring. Monitoring shall be part of the required mitigation plan and shall document and track impacts of development on the functions and values of critical areas and will track the success and failure of mitigation requirements. Monitoring may include, but is not limited to:
a. Establishing vegetation transects or plots to track changes in plant species composition over time;
b. Using aerial or other photography to evaluate vegetation community response;
c. Sampling surface and ground waters to determine pollutant loading;
d. Measuring base flow rates and stormwater runoff to model and evaluate water quantity predictions;
e. Measuring sedimentation rates;
f. Sampling fish and wildlife populations to determine habitat utilization, species abundance, and diversity; and
g. Sampling of water temperatures for wetlands and streams.
2. The applicant will be required to submit monitoring data and reports to the city on an annual basis or other schedule as required by the Shoreline Administrator or his designee. Monitoring shall continue for a minimum period of five years. Longer periods may be required to establish that the mitigation performance standards have been met. The Shoreline Administrator or his designee may approve a monitoring period of ten years if there is significant uncertainty involved in the mitigation proposal.
3. Performance Bond. Prior to issuance of any permit or approval that authorizes site disturbance under SMP Appendix A, the Shoreline Administrator or his designee shall require performance security in a form and amount deemed acceptable by the city to cover long term monitoring, maintenance, and replacement costs for mitigation projects to ensure mitigation is fully functional for the duration of the monitoring period. Bonds or other security for required mitigation projects shall be held by the city for a minimum of five years or until all performance standards have been achieved to ensure that the mitigation project has been fully implemented and demonstrated to function. The bond may be held for longer periods upon written finding by the city that it is still necessary to hold the bond to ensure the mitigation project has meet all elements of the approved mitigation plan.

K. Contingencies/Adaptive Management. When monitoring reveals a significant deviation from predicted impacts or the failure of mitigation measures, the applicant shall be responsible for appropriate corrective action. Contingency plans developed as part of the original mitigation plan shall apply but may be modified to address a specific deviation or failure. Contingency plan measures shall extend the monitoring period and shall be subject to the monitoring requirement to the same extent as the original mitigation measures.

L. Habitat Management Plans.
1. A habitat management plan is an alternative method for compliance with the intent of these critical areas regulations for wetlands and fish and wildlife habitat conservation areas. Preparation of a habitat management plan provides an applicant the opportunity to seek relief from the provisions of SMP Appendix A when the Shorline Variance criteria cannot be met or when innovative development is proposed while protecting and enhancing wetland and fish and wildlife habitat resources.
2. A habitat management plan shall be prepared by a qualified professional and shall include the following:
a. A critical areas report as specified in subsection E of this section, as well as specified under wetlands (Section 1.300) and fish and wildlife habitat conservation areas (Section 1.500);
b. An analysis of how the preferred development proposal will affect the wetland or fish and wildlife habitat conservation area and any priority species;
c. A comparative analysis of the benefits to habitat resources of the preferred development proposal, including scientific basis, with the development if it were to comply with the development regulations as specified in SMP Appendix A;
d. Mitigation and monitoring plans as specified in this section as well as specified under wetlands (Section 1.300) and fish and wildlife habitat conservation areas (Section 1.500);
e. Mitigation and monitoring plans shall include methods and processes such as innovative restoration techniques to restore degraded habitat; use of low impact development techniques; connecting habitat corridors that have a primary association with a listed species; collaborating with WDFW on innovative protection, enhancement or monitoring methods or otherwise advancing the science on mitigation and monitoring.

1.300 Wetlands.

A. Purpose. The purpose of the wetland critical areas provisions is to protect existing wetlands and maintain no net loss of their functions and values.
B. Designation. Determination of wetland ratings will be based on the entire extent of wetlands, unrelated to property lines or ownership patterns. For the purpose of categorization, wetlands shall be designated according to the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-06-025): Wetlands shall be designated as follows:
1. Category I. Are those wetlands that meet any of the following criteria:
a. Wetlands that score seventy or more points (out of one hundred) in the Washington State Wetland Rating System for Western Washington;
b. Wetlands identified by scientists of the Washington Natural Heritage Program/DNR as high quality wetlands or wetlands that support state listed threatened or endangered plants;
c. Bogs larger than one-fourth acre in size; or

d. Mature and old growth forested wetlands larger than one acre.
2. Category II. Are those wetlands that meet any of the following criteria:
a. Wetlands that score between fifty-one and sixty-nine points in the Washington State Wetland Ratings System for Western Washington; or
b. A bog between one-fourth and one-half acre in size.
3. Category III. Are those wetlands that score between thirty and fifty points in the Washington State Wetland Ratings System for Western Washington.
4. Category IV. Are those wetlands that score less than thirty points in the Washington State Wetland Ratings System for Western Washington.
5. Any wetlands created as compensation for approved wetland alteration shall be designated as the same category as the wetland it replaces and shall be considered a critical area and subject to all provisions of this SMP and SMP Appendix A.
C. Buffers. The standard buffer widths (as defined below) presume the existence of a native forest community in the buffer zone adequate to protect the wetland functions and values at the time of the proposed activity. If existing vegetation composition or structure is inadequate, then the buffer width shall be increased or the buffer should be enhanced through planting to create a functional buffer. Required standard wetland buffers, based on wetland category and land use intensity, are as follows:

Intensity of Adjacent Land Use	**Category I**	**Category II**	**Category III**	**Category IV**
High intensity	300’	200’	100’	50’
Moderate intensity	250’	150’	175’	35’
Low intensity	200’	100’	50’	35’

2. Any wetland created as compensation for an approved wetland alteration shall meet the standard buffer requirements for the new category of the created wetland or the category of the impacted wetland, whichever is greater. Created wetlands shall be located in such a way that the new associated wetland buffer does not cross onto adjacent property unless that property is owned by the owner of the subject property.
D. General Performance Standards. The requirements provided in this section supplement those identified in Section 1.200 General provisions. Activities and uses shall be prohibited from wetlands and wetland buffers, except as provided by SMP Appendix A.
E. Permitted Alterations. The following activities may only be permitted in a wetland or wetland buffer if the applicant can demonstrate that the activity will not degrade the functions and values of the wetland and other critical areas. The Shoreline Administrator or his designee may require the preparation of a critical area report to confirm compliance with the requirements of SMP Appendix A.
1. Conservation or preservation activities that improve the function of the existing wetland.
2. Modifications to existing structures where no further alteration or increase in footprint will occur.
3. Trails. Public and private trails may be allowed within all wetland buffers when a critical areas report can demonstrate that the wetland and wetland buffer functions and values will not be degraded by trail construction or use. Trail planning, construction, and maintenance shall adhere to the following criteria:

a. Trail alignment shall follow a path beyond a distance from the wetland edge equal to seventy-five percent of the buffer width except as needed to access viewing platforms. Trails may be placed on existing levees or railroad grades within these limits;
b. Trails and associated viewing platforms shall be constructed of pervious materials, unless necessary for conformance to the Americans with Disabilities Act. The trail surface shall meet all other requirements, including water quality standards set forth in the Washington State Department of Ecology Stormwater Management Manual for Western Washington, April 2005 or as revised;
c. Trail alignment shall avoid trees in excess of six inches in diameter of any tree trunk at a height of four and one-half feet above the ground on the upslope side of the tree;
d. Trail construction and maintenance shall follow the U.S. Forest Service Trails Management Handbook (FSH 2309.18, April 1993 or as revised) and Standard Specifications for Construction and Maintenance of Trails (EM-7720-103, September 1996 or as revised);
e. Access trails to viewing platforms within the wetland may be provided. Trail access and platforms shall be aligned and constructed to minimize disturbance to valuable functions of the wetland or its buffer and still provide enjoyment of the resource;
f. Buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas; and
g. Equestrian trails shall be located or measures provided to assure that runoff from the trail does not directly discharge to the wetland.
4. Stormwater Management Facilities. Stormwater management facilities are not allowed in Category I and II wetlands and buffers. Category I and II, III, and IV wetlands may receive runoff from sources such as roof drains and footing drains when in accordance with the local stormwater code and when such runoff is demonstrated as beneficial to wetland functions. The outer twenty-five percent of Category III and IV wetland buffers may be used for detention/retention areas where the applicant can demonstrate no practical alternative and that such use is beneficial to wetland functions. Enhanced treatment is required prior to discharge to such wetlands, and a stormwater facility maintenance plan shall be submitted.
5. Public Roads and Utilities. Footprint expansion of public roads and utilities may take place to maintain local levels of service, and to provide for and protect public safety when there is no feasible option with less impact and the width of the corridor is minimized to the maximum extent possible. Public and private utility corridors may be allowed within wetland buffers for Category II, III, and IV wetlands when no lesser impacting alternative alignment is feasible, and wetland and wetland buffer functions and values will not be degraded. Whenever possible, utilities shall be constructed in existing, improved roads, on drivable surface or shoulder, and shall be subject to compliance with road maintenance BMPs, or constructed within an existing utility corridor. Otherwise, corridor alignment, construction, restoration and maintenance shall adhere to the following criteria:
a. Corridor alignment shall follow a path beyond a distance from the wetland edge equal to seventy-five percent of the buffer width, except when crossing a Category IV wetland and its buffer;
b. Corridor construction and maintenance shall maintain and protect the hydrologic and hydraulic functions of the wetland and the buffer;
c. Corridors shall be fully revegetated with appropriate native vegetation upon completion of construction; and

d. Utilities requiring maintenance roads shall be prohibited in wetland buffers unless the following criteria are met:
i. There are no lesser impacting alternatives,
ii. Any required maintenance roads shall be no greater than fifteen feet wide. Roads shall closely approximate the location of the utility to minimize disturbances, and
iii. The maintenance road shall be constructed of pervious materials and designed to maintain and protect the hydrologic functions of the wetland and its buffer.
6. Category IV Wetlands. Allowable uses and activities shall include all uses and activities identified in Section 1.200(E)(1) through (E)(5) above. In addition, activities and uses that result in unavoidable and necessary impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved critical areas report and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objective.
F. Critical Areas Report/Study. In addition to the general requirements for critical areas reports provided under Section 1.200 General provisions, wetland critical area reports shall include the following:
1. On the site map:
a. The edge of the wetland as flagged and surveyed in the field using the most recent approved federal wetland delineation manual and applicable regional supplements;
b. The location of any proposed wetland area(s) to be created through mitigation measures; and
c. The location of any proposed wetland alteration or fill.
2. In the report:
a. Description of the wetland by classification per the most recent version of the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-06-025, or as revised);
b. General condition of wetland;
c. Description of vegetation species and community types present in the wetland and surrounding buffer;
d. Description of soil types within the wetland and the surrounding buffer using the USDA Natural Resources Conservation Service soil classification system; and
e. Description of hydrologic regime and findings.
G. Wetland Mitigation Requirements. No net loss of wetland functions and values shall occur as a result of the overall project. If a wetland alteration is permitted, then the associated impacts will be considered unavoidable. In addition to the requirements in Section 1.200 General provisions, the following mitigation measures to minimize and reduce wetland impacts shall be required:
1. Mitigation shall achieve equivalent or greater biological functions. Mitigation plans shall be consistent with the state Department of Ecology guidelines found in Wetland Wetland in Washington State – Part 2: Developing Mitigation Plans (Version 1), 2006 (or as revised).
2. Preference of Mitigation Actions. Mitigation actions that require compensation shall occur in the following order of preference:
a. Restoring wetlands on upland sites that were formerly wetlands.
b. Creating wetlands on disturbed upland sites such as those with vegetation cover consisting primarily of nonnative introduced species. This should only be attempted when there is a consistent source of hydrology and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is designed.

c. Enhancing significantly degraded wetlands only after a minimum one is to one replacement ratio has been met.

3. On-site and Off-site Mitigation. Unless otherwise approved, all wetland impacts shall be compensated for through restoration or creation of replacement wetlands that are in-kind, on-site, and of similar or better wetland category. Mitigation shall be timed prior to or concurrent with the approved alteration and shall have a high probability of success. The following ratios shall apply to wetland restoration and creation for mitigation:

Category and Type of Wetland Impacts	**Re-establishment or Creation**	**Rehabilitation Only[1]**	**Re-establishment or Creation (R/C) and Rehabilitation (RH)[1]**	**Re-establishment or Creation (R/C) and Enhancement (E)[1]**	**Enhancement Only[1]**
All Category IV	1.5:1	3:1	1:1 R/C and 1:1RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I - based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage site	Not allowed	6:1 Rehabilitation of a Natural Heritage site	Not allowed	Not allowed	Case-by-case
Category I Bog	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed	Case-by-case

[1] These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.

1.400 Critical aquifer recharge areas.

A. Purpose. The purpose of the critical aquifer recharge area (CARA) provisions is to protect groundwater quality and quantity for public water supply and to maintain hydrologic functions of aquatic areas. CARAs contribute to the replenishment of groundwater and, due to their prevailing geologic conditions associated with infiltration rates, have a high potential for contamination of groundwater resources.

B. Designation. Critical aquifer recharge areas are areas to be determined by the city to have a critical recharging effect on aquifers used for potable water consistent with WAC 365-190-030(2) and as designated on maps to be located in Carnation City Hall.

1. Critical aquifer recharge areas are categorized as follows:

a. Category I critical aquifer recharge areas include those areas designated on the critical aquifer recharge area map as highly susceptible to groundwater contamination and that are located within a sole source aquifer or wellhead protection area.

b. Category II critical aquifer recharge areas include those mapped areas designated that:

i. Have a medium susceptibility to groundwater contamination and are located in a sole source aquifer or wellhead protection area; or

ii. Are highly susceptible to groundwater contamination and are not located in a sole source aquifer or wellhead protection area.

2. An applicant may request the city to declassify a specific area included in the city's CARA designation map. The request must be supported by a critical areas report that includes a hydrogeologic assessment by a qualified professional. The city shall review the request to declassify an area and shall make a determination to amend the CARA designation map as appropriate.

C. Prohibited Uses and Activities.

1. The following uses or activities are prohibited in designated Category I critical aquifer recharge areas:

a. Hazardous liquid pipelines;

b. Sand and gravel, and hard rock mining on land that is not zoned for mining as of the effective date of SMP Appendix A;

c. Mining of any type below the groundwater table;

d. Processing, storage, and disposal of radioactive wastes;

e. Hydrocarbon extraction;

f. Commercial wood treatment facilities on permeable surfaces;

g. Golf courses;

h. Cemeteries;

i. Wrecking yards; and

j. Landfills for hazardous waste, municipal solid waste, or special waste.

2. The following uses and activities are prohibited in a designated Category II critical aquifer recharge area:

a. Mining of any type below the water table;

b. Processing, storage, and disposal of radioactive substances;

c. Hydrocarbon extraction;

d. Commercial wood treatment facilities on permeable surfaces;

e. Wrecking yards; and

f. Landfills for hazardous waste, municipal solid waste, or special waste.

D. Performance Standards. The Shoreline Administrator or his designee shall only require a critical areas report for a development proposal in a CARA if the Shoreline Administrator or his designee determines that the report will provide information that is necessary to protect the CARA from adverse impacts created by the development proposal. In addition, the following performance standards will apply:

1. Containment. Every development proposal involving hazardous substance processing or handling which is located in or adjacent to a CARA shall provide containment devices adequate in size to contain on-site any unauthorized release of hazardous substances from any area where these substances are either stored, handled, treated, used, or produced. Containment devices shall prevent such substances from penetrating into the ground. This provision also applies to releases that may mix with storm runoff.

2. Hazardous Substances Management Plan. Every development proposal involving hazardous substance processing or handling which is located in or adjacent to a CARA shall prepare a plan containing procedures to be followed to prevent, control, collect, and dispose of any unauthorized release of a hazardous substance.

3. Storage Tanks.

a. All storage tanks proposed to be located in a CARA must comply with local building code requirements and must conform to the current International Fire Code requirements for secondary containment.

b. Underground Tanks. All new underground tanks located in or adjacent to a CARA shall be designed and constructed so as to:

i. Prevent releases due to corrosion or structural failure for the operational life of the tank;

ii. Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance; and

iii. Use material in the construction or lining of the tank, which is compatible with the substance to be stored.

c. Adequate protection against corrosion shall be verified by a qualified professional following construction and shall be re-verified by a qualified professional every three years that the tanks are in use.

d. Aboveground Tanks. No new aboveground storage tank located in or adjacent to a CARA shall be installed, used or maintained in any manner which may allow the release or a hazardous substance to the ground, groundwaters, or surface water.

4. Agriculture. Agricultural activities in or adjacent to a CARA shall use best management practices to prevent ground quality degradation from livestock waste.

5. Sewage Disposal. All residential, commercial or industrial development proposals located in or adjacent to a CARA shall comply with Title 13 CMC Public Utilities.

6. Golf Courses. Golf course operations proposed in or adjacent to a CARA shall be subject to a golf course maintenance plan using best management practices to protect groundwater quality. The plan shall detail the proposed use of fertilizers, herbicides, pesticides, fungicides, or other maintenance agents, with projected application methods and schedules and measures to prevent pollution of groundwater.

7. Commercial Vehicle Repair and Servicing. Commercial vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding

normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur. No dry wells shall be allowed in CARAs on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility development must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity.

8. The city shall impose conditions on the uses listed in the table below in accordance with the applicable state and federal regulations as necessary to protect CARAs.

Statutes, Regulations, and Guidance Pertaining to Groundwater Impacting Activities:

Activity	**Statute--Regulation--Guidance**
Aboveground storage tanks	Chapter 173-303-640 WAC
Animal feedlots	Chapter 173-216 WAC, Chapter 173-220 WAC
Automobile washers	Chapter 173-216 WAC, Best Management Practices for Vehicle and Equipment Discharges (WDOE WQ-R-95-56)
Chemical treatment storage and disposal facilities	Chapter 173-303-182 WAC
Hazardous waste generator (boat repair shops, biological research facility, dry cleaners, furniture stripping, motor vehicle service garages, photographic processing, printing and publishing shops, etc.)	Chapter 173-303 WAC
Injection wells	Federal 40 CFR Parts 144 and 146, Chapter 173-218 WAC
Junk yards and salvage yards	Chapter 173-304 WAC, Best Management Practices to Prevent Stormwater Pollution at Vehicles Recycler Facilities (WDOE 94-146)
Oil and gas drilling	Chapter 332-12-450 WAC, WAC, Chapter 173-218 WAC
On-site sewage systems (large scale)	Chapter 173-240 WAC
On-site sewage systems (< 14,500 gal/day)	Chapter 246-272 WAC, Local Health Ordinances
Pesticide storage and use	Chapter 15.54 RCW, Chapter 17.21 RCW
Sawmills	Chapter 173-303 WAC, 173-304 WAC, Best Management Practices to Prevent Stormwater Pollution at Log Yards (WDOE 95-53)
Solid waste handling and recycling facilities	Chapter 173-304 WAC
Surface mining	Chapter 332-18-015 WAC
Underground storage tanks	Chapter 173-360 WAC
Wastewater application to land surface	Chapter 173-216 WAC, Chapter 173-200 WAC, WDOE Land Application Guidelines, Best Management Practices for Irrigated

Activity	Statute--Regulation--Guidance
	Agriculture

1.500 Fish and wildlife habitat conservation areas.

A. Purpose. The purpose of fish and wildlife habitat conservation is to preserve and protect those areas with which anadromous fish, threatened and endangered species, and species of local importance have a primary association.

B. Designation.
1. For purposes of SMP Appendix A, fish and wildlife habitat conservation areas are those habitat areas that meet any of the following criteria:
a. Documented presence of species listed by the federal government or the state of Washington as endangered, threatened, and sensitive species; or
b. Sites containing bald eagle habitat as mapped by WDFW; or
c. Sites containing heron rookeries or active nesting trees; or
d. All waterways which meet the criteria for streams set forth in WAC 222-16-030 and based on the interim water typing system in WAC 222-16-031.
2. All areas within the city meeting one or more of the above criteria, regardless of any formal identification, are designated critical areas and are subject to the provisions of SMP Appendix A. The approximate location and extent of known fish and wildlife habitat conservation areas are shown on the critical area maps adopted by the city, as most recently updated.
3. Any fish and wildlife conservation areas or other critical areas created or recorded as compensation for approved wetland alterations shall be designated as the same type, class, or category as the critical area it replaces and shall be subject to all provisions of SMP Appendix A.

C. Buffers.
1. Waterways. Waterways are classified according to WAC 222-16-031. Definitions are provided in Section 1. 800. The following buffer widths are the minimum requirements for waterways. All buffers shall be measured from the ordinary high water mark (OHWM).
a. A one hundred fifteen foot buffer on the Snoqualmie River, a Shoreline of Statewide Significance and Class 1 watercourse.
b. The buffer for the Tolt River, a Shoreline of the State and a Class 1 watercourse, shall extend one hundred feet from the edges of its channel migration zone. The floodway for the Tolt River as mapped by FEMA on map 53033C0418G and 53033C0419G, December 6, 2001 shall be used as a surrogate for the channel migration zone. If the floodway is mapped differently in the future by FEMA, the map with the largest area mapped as floodway shall be used as a surrogate for the channel migration zone.
c. A one hundred fifteen foot buffer on each side of the channel of 2 and 3 watercourses.
d. A sixty-five foot buffer on each side of the channel of a Class 4 watercourse.
e. A twenty-five foot buffer on each side of the channel of a Class 5 watercourse.
2. Wildlife and Other Habitat. Buffer widths and setbacks for the protection of listed species outside of streams and stream buffers will be determined by the city on a site-specific basis through the approval of a critical areas report. The Shoreline Administrator or his designee shall consider the recommendation for adequate buffers for wildlife and other habitat as identified in the current management recommendations for Washington Priority Species (WDFW).

D. General Performance Standards. The requirements provided in this section supplement those identified in Section 1.200 General provisions. Fish and wildlife habitat conservation areas may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with Section 1.121 of SMP Appendix A. Additional performance standards follow:

1. No development shall be allowed within a habitat conservation area or any associated buffer with which state or federal endangered, threatened, or sensitive species have a primary association.
2. Whenever development is proposed adjacent to a fish and wildlife habitat conservation area with which state or federal endangered, threatened, or sensitive species have a primary association, such areas shall be protected by the measures recommended in a critical areas report prepared by a qualified professional and approved by the Shoreline Administrator or his designee.
3. Approval of alteration of the fish and wildlife habitat conservation area, buffer or any associated setback requirements shall not occur prior to approval by the city upon the completion of consultation with the State Department of Fish and Wildlife and the appropriate federal agency, if applicable.
4. No plant, wildlife, or fish species that is not indigenous to the region shall be introduced into a fish and wildlife habitat conservation area unless authorized by the Shoreline Administrator or his designee after reviewing related state or federal permit or approval.
5. Alteration of natural watercourses shall be avoided, if feasible. If alteration is unavoidable, the following provisions shall apply:

a. Watercourse alteration projects shall not result in blockage of side channels. Known fish barriers into side channels shall be removed as part of an approved watercourse alteration project.
b. Removal of large woody debris (LWD) and vegetation, including salvage logging, shall be avoided or minimized unless it is demonstrated that the LWD poses an imminent safety hazard to the public, property or structures, or when it is part of a larger restoration project. Any removal that is unavoidable shall be mitigated by replanting with native vegetation and by augmenting lost LWD where LWD can be anchored in such a way to provide fisheries, riparian or shoreline erosion benefits; and to avoid safety hazards where recreational boating and swimming are expected.
c. The applicant shall maintain the altered or relocated portion of the watercourse to ensure that the flood carrying capacity is not diminished. Maintenance shall be bonded for a period of five years and be in accordance with an approved maintenance program.

6. The Shoreline Administrator or his designee shall place conditions on the requested permit to restrict activities allowed within a fish and wildlife habitat conservation area or its buffer, as necessary, per the approved critical area report and habitat management plan to minimize or mitigate any potential adverse impacts. Conditions may include:

a. Establishment of buffer zones outside of the required watercourse, channel migration zone and wetland buffers, on a case-by-case basis, as may be necessary to retain adequate natural habitat for listed species;
b. Preservation of critically important vegetation and/or habitat features (e.g., snags);

c. Limitation of access to the habitat area, including fencing (on a case-by-case basis) to deter unauthorized access; (Note: Fencing shall not create a barrier to habitat function.)
d. Seasonal restrictions of construction activities;
e. Establishment of a duration and timetable for periodic review of mitigation activities; and
f. Requirement of a performance bond, when necessary, to ensure successful completion.

E. Special Provisions--Watercourses.
1. The requirements provided in this section supplement those identified in Section 1.200 General provisions. Activities may only be permitted in a watercourse or watercourse buffer if the applicant can show that the proposed activity will not degrade the functions and values of the watercourse, watercourse buffer, or other critical area.
2. Class 1, 2, and 3 watercourses as defined in Section 1.800. Activities and uses shall be prohibited in Class 1 and 2 watercourses except as provided for in Sections 1.122 and the allowable activities and uses listed below.
a. Watercourse Crossings. Watercourse crossings shall be minimized, but when necessary they shall conform to the following standards as well as other applicable laws (see the State Department of Fish and Wildlife, or Ecology).
i. The watercourse crossing is the only reasonable alternative that has the least impact;
ii. It has been shown in the critical areas report that the proposed crossing will not decrease the watercourse and associated buffer functions and values;
iii. The watercourse crossing shall use bridges instead of culverts unless it can be demonstrated that a culvert would result in equal or less ecological impacts. Under no circumstances may a culvert be installed in the Snoqualmie or Tolt Rivers;
iv. All watercourse crossings using culverts shall use super span or oversized culverts with appropriate fish enhancement measures. Culverts shall not obstruct fish passage;
v. Watercourse crossings shall be designed according to the current Washington Department of Fish and Wildlife Design of Road Culverts for Fish Passage, 2003 (and as amended), and the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2001 (and as revised);
vi. All watercourse crossings shall be constructed during the summer low flow period between June 15th and September 15th or as specified by the State Department of Fish and Wildlife in the hydraulic project approval or as may be additionally specified by the National Marine Fisheries Service or U.S. Fish and Wildlife Service;
vii. Watercourse crossings shall not occur through salmonid spawning areas unless no other feasible crossing site exists;
viii. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists;
ix. Watercourse crossings shall not diminish the flood carrying capacity of the stream;
x. Watercourse crossings shall minimize interruption of downstream movement of wood and gravel;
xi. Watercourse crossings shall provide for maintenance of culverts and bridges; and
xii. Watercourse crossings shall be minimized by serving multiple properties whenever possible.
b. Trails. The criteria for alignment, construction, and maintenance of trails within wetlands and their buffers shall apply to trails within watercourse buffers.

c. Utilities. The criteria for alignment, construction, and maintenance within the wetland buffers shall apply to utility corridors within watercourse buffers. In addition, corridors shall not be aligned parallel with any watercourse channel unless the corridor is outside the buffer, and crossings shall be minimized. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the water body where feasible. Where possible, crossings shall be contained within the existing footprint of an existing road or utility crossing. Otherwise, crossings shall be at an angle greater than sixty degrees to the centerline of the channel. Criteria for watercourse crossing shall also apply.
d. Stormwater Facilities. Stormwater facilities may be permitted provided that they are located in the outer twenty-five percent of the buffer and are located in the buffer only when no practicable alternative exists outside the buffer. Stormwater facilities should be planted with native plantings where feasible to provide habitat, and/or less intrusive facilities should be used. Detention/retention ponds should not be located in the buffer.
e. Floodway Dependent Structures. Floodway dependent structures or installations may be permitted within streams if allowed or approved by this SMP and other ordinances or other agencies with jurisdiction.
f. Stream Bank Stabilization. This section applies only to Class 2 and 3 watercourses. Regulations governing shoreline stabilization for Class 1 watercourses can be found in Section VI.C of the SMP. Stream bank stabilization shall only be allowed when it is shown, through a stream bank stability assessment conducted by a qualified fluvial geomorphologist or hydraulic engineer, that such stabilization is required for public safety reasons, that no other less intrusive actions are possible, and that the stabilization will not degrade in-stream or downstream channel stability. Stream bank stabilization shall utilize bioengineering or soft armoring techniques unless otherwise demonstrated. Stream bank stabilization shall conform to the Integrated Streambank Protection Guidelines developed by the Washington State Department of Fish and Wildlife, 2002 or as revised. Stabilization measures must demonstrate the following:
i. Natural shoreline processes will be maintained. The project will not result in increased erosion or alterations to, or loss of, shoreline substrate within one-fourth mile of the project area;
ii. The stabilization measures will not degrade fish or wildlife habitat conservation areas or associated wetlands;
iii. Adequate mitigation measures ensure that there is no net loss of the functions or values of riparian habitat.
g. Stream Bank Stabilization Maintenance. This section applies only to Class 2 and 3 watercourses. Regulations governing shoreline stabilization for Class 1 watercourses can be found in Section VI.C of the SMP. Maintenance of lawfully established existing bank stabilization is allowed provided it does not increase the height or linear amount of bank and does not expand waterward or into aquatic habitat landward.
3. Class 3, 4 and 5 Watercourses. Activities and uses that result in unavoidable and necessary impacts may be permitted in Class 3, 4, and 5 watercourses and buffers in accordance with an approved critical areas report and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives.

F. Special Provisions--Anadromous Fish.
1. Activities, uses, and alterations proposed to be located in waterbodies used by anadromous fish or in areas that affect such waterbodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, the following:

a. Activities shall be timed to occur only during the allowable work window as designated by the State Department of Fish and Wildlife or as may be additionally specified by the National Marine Fisheries Service or U.S. Fish and Wildlife Service;
b. An alternative alignment or location for the activity is not feasible;
c. The activity is designed so that it will minimize the degradation of the functions or values of the fish habitat or other critical areas; and
d. Any impact to the functions and values of the habitat conservation area are mitigated in accordance with an approved critical areas report.
2. Structures that prevent the migration of salmonids shall not be allowed in the portion of waterbodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent juveniles migrating downstream from being trapped or harmed.
3. Fills waterward of the OHWM, when authorized, shall minimize the adverse impacts to anadromous fish and their habitat, shall mitigate any unavoidable impacts, and shall only be allowed for water-dependent uses or ecological restoration.
4. Outfalls located within or upstream of spawning areas shall be designed, constructed, and operated to minimize the disturbance of spawning beds.
5. Fueling facilities within one hundred feet of the buffer must follow all applicable state regulations that achieve fuel containment.
6. Water withdrawal and diversion uses and activities shall preserve water flows sufficient to maintain salmon and steelhead habitat. Review of proposed water withdrawal and diversion uses and activities shall account for the cumulative effect of all current and likely future water withdrawal and diversion from the waterbody.
7. To the extent allowed by law, any mitigation of development impacts within the Tolt and Snoqualmie River buffers shall ensure that native species are retained. The buffer shall be comprised of plant species native to the region. If the buffer does not contain sufficient native species as determined by the critical areas report, mitigation (to the extent allowed by law) shall require that trees be planted from among the following species: black cottonwood (Populus trichocarpa), Douglas fir (Pseudotsuga menziesii), western red cedar (Thuja plicata), Sitka spruce (Picea sitchensis), bigleaf maple (Acer macrophyllum), red alder (Alnus rubra), or other species native to the Puget Sound lowlands and common in the lower Snoqualmie and Tolt River basins. Monitoring and maintenance will be used to ensure that the buffer achieves mature forest conditions and contributes wood to maintain channel processes.

G. Special Provisions--Wildlife. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292).

H. Critical Areas Report.
1. A critical areas report for fish and wildlife habitat conservation areas shall be prepared by a qualified biologist with experience analyzing aquatic and/or wildlife habitat and who has experience preparing reports for the relevant type of critical area.
2. In addition to the requirements of Section 1.200 General provisions, critical area reports for wildlife habitat areas shall include the following additional information:
a. Any species of local importance; priority species; or endangered, threatened, sensitive, or candidate species that has a primary association with habitat on or adjacent to the project area;

b. The qualities that are essential to maintain feeding, breeding, and nesting of listed species using the fish and wildlife habitat conservation area; and
c. Measures to minimize the impact on these ecological processes from proposed activities. The applicant shall be guided by the document Management Recommendations for Washington's Priority Habitats and Species, issued by the Washington Department of Wildlife, May 1991, (or as revised), and by any recovery and management plans prepared by the Washington Department of Fish and Wildlife for the listed species pursuant to WAC 232-12-297(11). Measures to minimize impacts shall consider the following:
i. Seasonal restrictions on construction activities,
ii. Use of low-impact development techniques or clustering of development on the subject property to locate structures in a manner that preserves and minimizes the adverse effects to habitat areas,
iii. Preservation and retention of habitat and vegetation on the subject property; contiguous blocks or with connection to other habitats that have a primary association with a listed species,
iv. Establishment of expanded buffers around the critical area,
v. Limitation of access to the critical area and buffer, and
vi. The creation of restoration of habitat area for listed species.
3. A critical areas report for watercourses shall include the following information:
a. On the site map:
i. The location of the ordinary high water mark;
ii. The toe of any slope twenty-five percent or greater within twenty-five feet of the ordinary high water mark; and
iii. The location of any proposed or existing watercourse crossing.
b. In the report:
i. Characterization of riparian (streamside) vegetation species, composition, and habitat function;
ii. Description of the soil types adjacent to and underlying the watercourse, using the soil conservation service soil classification system;
iii. Determination of the presence or absence of fish, and reference sources; and
iv. When watercourse alteration is proposed, the report shall include watercourse width and flow; stability of the channel including erosion potential; type of substratum; discussions of infiltration capacity and bio-filtration as compared to the watercourse prior to alteration; presence of hydrologically linked wetlands; analysis of fish and wildlife habitat; and proposed floodplain limits.
I. Watercourse Mitigation. No net loss of watercourse functions and values shall occur as a result of the overall project. The mitigation requirements for watercourse alterations, in addition to the requirements in Section 1.200 General provisions, shall meet the following minimum performance standards and shall occur pursuant to an approved mitigation plan:
1. Achieve equivalent or greater functions, including, but not limited to, habitat functions and hydrologic functions.
2. Maintain or improve watercourse channel dimensions, including depth, length, and gradient.
3. Restore watercourse buffers disturbed by the project with native vegetation.
4. Create an equivalent or improved channel bed.
5. Replace watercourse and watercourse buffer habitat features and areas disturbed by the project.

6. Unless it is demonstrated that a higher level of watercourse function would result from an alternate mitigation approach, compensatory mitigation should be either in-kind and on-site, or in-kind and within the same subbasin. Mitigation actions should be conducted on-site except when:
a. There are no reasonable on-site or in-sub-drainage basin opportunities with a high likelihood of success;
b. Off-site mitigation has a greater likelihood of providing equal or improved habitat functions for fish and wildlife;
c. Established watershed goals for water quality, flood or conveyance, habitat, or other functions, including priorities and recommendations outlined in the WRIA 7 Salmon conservation plan, justify location of mitigation at another site.
i. Prior to approval of off-site mitigation, the off-site mitigation area shall be recorded as stipulated in Section 1.116.
7. The requirements in this section may be modified at the Shoreline Administrator or his designee's direction if the applicant demonstrates that, with respect to each watercourse area function, greater functions can be obtained in the affected drainage subbasin through alterative mitigation.
J. Mitigation Plans for Alteration to Watercourses and Watercourse Buffers. The scope and content of a mitigation plan to alter watercourse and watercourse buffers shall be decided on a case-by-case basis. As the impacts to the critical area increase, the mitigation measures to offset these impacts will increase in number and complexity. Refer to provisions in Section 1.200 General provisions.

1.600 Geologically hazardous areas.

A. Purpose. The purpose of this section is to reduce the risk to public health and safety by preventing incompatible development activity in or near geologically hazardous areas.

B. Designation. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. These areas pose a threat to the health and safety of citizens when incompatible development is sited in significant hazardous areas. Such incompatible development may not only place itself at risk, but may also increase the hazard to surrounding development and uses. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas:
1. Erosion hazard;
2. Class II and Class III landslide hazards (including steep slopes). Landslide hazards are classified as Classes I through III based on the degree of risk as follows:
a. Class I/low hazard areas with slopes of less than fifteen percent.
b. Class II/moderate hazard areas with slopes of between fifteen percent and thirty percent that are underlain by soils that consist largely of sand, gravel, or glacial till.
c. Class III/high hazard areas with slopes of greater than fifteen percent that are underlain by soils consisting largely of silt and clay, or any slope over thirty percent;
3. Seismic hazard;
4. Other geological events including mass wasting, debris flows, rock falls, and differential settlement.

C. Prohibited Development and Activities.
1. Pipelines containing hazardous substances (e.g., petroleum) are prohibited in geologically hazardous areas.
2. New development or the creation of new lots that would cause foreseeable risk from geological conditions to people or improvements during the life of the development is prohibited.
3. New development that would require structural shoreline stabilization over the life of the development is prohibited except when the applicant can demonstrate that stabilization is necessary to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result.

D. Performance Standards.
1. All projects shall be evaluated to determine whether the project is proposed to be located in a geologically hazardous area, the project's potential impact on the geologically hazardous area, and the potential impact on the proposed project. The Shoreline Administrator or his designee may require the preparation of a critical area report to determine the project's ability to meet the performance standards.
2. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:
a. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
b. Will not adversely impact other critical areas;
c. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions;
d. Are certified as safe as designed and under anticipated conditions by a qualified geotechnical engineer or geologist, licensed in the state of Washington.
3. All development applications shall submit an erosion control plan consistent with this section prior to receiving approval.
4. Clearing limits for roads, water, wastewater, and stormwater utilities, and temporary erosion control facilities shall be marked in the field and approved by the city prior to any alteration of existing native vegetation.
5. Approved clearing shall only be allowed from May 1st to October 1st of each year considering that the city may extend or shorten the dry season on a case-by-case basis depending on the actual weather conditions; except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practices permit issued by the State Department of Natural Resources.
6. Access roads and utilities may be permitted in the erosion or landslide hazard area and associated buffers if the city determines that no other feasible alternative exists.
7. Utility lines and pipes shall be permitted in the erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located aboveground and be properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.
8. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except that conveyance is allowed via

continuous storm pipe down slope to a point where there are no erosion hazard areas downstream from the discharge.
9. The division of land in erosion or landslide hazard areas and associated buffers is subject to provisions established for all critical areas in Section 1.200 General provisions.

E. Special Provisions--Erosion and Landslide Areas. Activities on sites containing erosion or landslide hazards shall meet the following requirements:
1. Buffers Required. A buffer shall be established for all edges of erosion or landslide hazard areas. The size of the buffer shall be determined by the Shoreline Administrator or his/her designee in order to eliminate or minimize the risk of property damage, death, or injury resulting from erosion and landslides caused in whole or part by the development, based upon review of and concurrence with a critical areas report prepared by a qualified professional.
2. Minimum Buffers. The minimum buffer shall be equal to the height of the slope, or fifty feet, whichever is greater.
3. Buffer Reduction. The buffer may be reduced to a minimum of ten feet when a qualified professional demonstrates to the satisfaction of the Shoreline Administrator or his designee that the reduction will adequately protect the proposed development, adjacent developments and uses, and the subject critical area. A Shoreline Variance is required for any reduction of the buffer to less than 50 feet.
4. Increased Buffer. The buffer may be increased when the Shoreline Administrator or his designee determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.
5. Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a geotechnical analysis is submitted and certifies that:
a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond the pre-development condition;
b. The development will not decrease slope stability on adjacent properties; and
c. Such alteration will not adversely impact other critical areas.

F. Design Standards--Erosion and Landslide Hazard Areas. Design standards for a development proposal within an erosion area or a Class II or Class III landslide hazard area and/or buffer shall meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this section. The requirements for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design standards are:
1. Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas;
2. Structures and improvements shall minimize alterations to the natural contours of the slope and foundations shall be tiered where possible to conform to existing topography;
3. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
4. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties; and
5. The use of a retaining wall that allows the maintenance of existing natural slopes are preferred over graded artificial slopes.

G. Impervious Surface Ratio.
1. An impervious surface ratio is a measurement of the amount of the site that is covered by any material that substantially reduces or prevents the infiltration of stormwater into previously undeveloped land. The maximum impervious surface ratios for Class II and Class III landslide hazard areas are set forth as follows:
a. Class II landslide hazard areas may have a maximum impervious surface ratio of 0.30.
b. Class III landslide hazard areas may have a maximum impervious surface ratio of 0.20.

H. Native Vegetation.
1. The minimum percentage of native vegetation that must be retained on sites including Class II or Class III landslide hazard areas is set forth as follows:
a. Class II landslide hazard areas require a minimum of sixty-five percent retained native vegetation.
b. Class III landslide hazard areas require a minimum of sixty-five percent retained native vegetation.

I. Seismic Hazard Areas.
1. Development proposals on sites containing mapped seismic hazard areas may make alterations to a seismic hazard area only when the applicant demonstrates and the city concludes that:
a. Evaluation of site specific subsurface conditions show that the site is not located in a seismic hazard area; or
b. The applicant implements appropriate engineering design based on the best available engineering and geological practices that either eliminates or minimizes the risk of structural damage or injury resulting from seismically induced or soil liquefaction related ground deformations.
2. The city may in its sole discretion waive or reduce engineering study and design requirements for alterations in seismic hazard areas for any development permits except those for:
a. Essential facilities as defined by the International Building Code (IBC) as adopted by the city, or a facility the destruction of which would constitute a hazard to life or property due to the potential for release or discharge of hazardous materials or other applicable relevant considerations pursuant to Chapter 16 of the IBC. The foregoing includes, but is not limited to, wastewater treatment plants, public potable water supply facilities, city hall, and fire stations;
b. Nonresidential structures with an occupancy load of fifty persons or greater, or facilities that are publicly funded or owned, specifically including without limitation school buildings,
c. Any development that includes new construction, additions or alterations that will increase occupancy or significantly affect the risk of structural damage or injury located on a site with areas identified as containing erosion and/or landslide hazards in addition to seismic hazard.
3. Nothing herein shall be deemed as waiving, altering, or otherwise abridging any applicable requirement of the state building code, as adopted by the city.

J. Critical Areas Report.
1. When a critical areas report is required for a geologically hazardous area, it shall be prepared by an engineer or geologist licensed in the state of Washington with experience analyzing

geologic, hydrogeologic, and groundwater flow systems, and who has experience preparing reports for the relevant type of hazard.
2. In addition to the requirements of Section 1.200 General provisions, critical area reports required for geologically hazardous areas shall include the following additional information:
a. On the site map:
i. All geologically hazardous areas within or adjacent to the project area or that have potential to be affected by the proposal; and
ii. The top and toe of slope (Note: These should be located and flagged in the field subject to city staff review).
b. In the report:
i. A geological description of the site;
ii. A discussion of any evidence of existing or historic instability, significant erosion or seepage on the slope;
iii. A discussion of the depth of weathered or loosened soil on the site and the nature of the weathered and underlying basement soils;
iv. An estimate of load capacity, including surface and ground water conditions, public and private sewage disposal system, fill and excavations, and all structural development;
v. Recommendations for building limitations, structural foundations, and an estimate of foundation settlement;
vi. A complete discussion of the potential impacts of seismic activity on the site;
vii. Recommendations for management of stormwater for any development above the top of slope;
viii. A description of the nature and extent of any colluviums or slope debris near the toe of slope in the vicinity of any proposed development; and
ix. Recommendations for appropriate building setbacks, grading restrictions, and vegetation management and erosion control for any proposed development in the vicinity of the geologically hazardous areas.

1.700 Frequently flooded areas.

A. Findings--Purpose--Flood loss reduction.
1. Findings. The flood hazard areas of the city are subject to periodic inundation which results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.
2. Purpose. It is the purpose of these regulations to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas within shoreline jurisdiction by provisions designed:
a. To protect human life and health;
b. To minimize expenditure of public money and costly flood control projects;

c. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
d. To minimize prolonged business interruptions;
e. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
f. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
g. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
h. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
3. Flood loss reduction. In order to accomplish its purposes, this ordinance includes methods and provisions for:
a. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
b. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
c. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
d. Controlling filling, grading, dredging, and other development which may increase flood damage; and
e. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas.

B. General provisions.
1. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County and Incorporated Areas" dated December 6, 2001, and letter of map revision (LOMR) dated May 1, 2002, and any revisions thereto, with an accompanying flood insurance rate map (FIRM), and any revisions thereto, are adopted by reference and declared to be a part of SMP Appendix A. The flood insurance study and the FIRM are on file at the city and available for public inspection and copying. The best available information for flood hazard area identification as outlined in Section 1.700(C)(4)(d) shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under Section 1.700(C)(4)(d).
2. Warning and disclaimer of liability. The degree of flood protection required by SMP Appendix A is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. SMP Appendix A does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. SMP Appendix A shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on these regulations or any administrative decision lawfully made hereunder.

C. Administration.

1. Development Permit Required. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 1.700(B)(1). The permit shall be for all structures including manufactured homes, as set forth in CMC 15.08.010 and for all development including fill and other activities, also defined in CMC 15.08.010.

2. Application for Development Permit. Application for a development permit shall be made on forms furnished by the city and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

a. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

b. Elevation in relation to mean sea level to which any structure has been floodproofed;

c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 1.700(F)(2); and

d. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

3. Designation of local administrator. The Shoreline Administrator or his/her designee is hereby appointed to administer and implement SMP Appendix A by granting or denying development permit applications in accordance with its provisions.

4. Duties and responsibilities of local administrator. The duties of the Shoreline Administrator under SMP Appendix A shall include, but not be limited to:

a. Review all development permits to determine that the permit requirements of SMP Appendix A have been satisfied;

b. Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required;

c. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section 1.700(G) are met;

d. When base flood elevation data has not been provided (A or V zone) in accordance with Section 1.700(B)(2), the Shoreline Administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer Sections 1.700(F) and 1.700(G);

e. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in Section 1.700(C)(4)(d), obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement;

f. For all new or substantially improved flood-proofed nonresidential structures where base flood elevation data is provided through the flood insurance study, FIRM, or as required in subsection (4)(d) of this section:

1. Obtain and record the elevation (in relation to mean sea level) to which the structure was floodproofed; and
2. Maintain the floodproofing certifications required in Section 1.700(C)(2);
g. Maintain for public inspection all records pertaining to the provisions of SMP Appendix A;
h. Notify adjacent communities and the department of ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;
i. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished; and
j. Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 1.700(D).

D. Appeals and variances.

1. The hearing examiner shall hear and decide appeals and requests for variances from the requirements of SMP Appendix A as outlined in Section VII(B) of this SMP. The hearing examiner shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the SMP Administrator in the enforcement or administration of these regulations. Those aggrieved by the decision of the Shoreline Administrator, or any taxpayer, may appeal such decision to the hearing examiner, as provided in Section VII of this SMP,.

2. In passing upon such applications, the hearing examiner shall consider all technical evaluations, all relevant factors, standards specified in other sections of SMP Appendix A, the Shoreline Variance Review Criteria specified in Section VII(I) of this SMP, and:
a. The danger that materials may be swept onto other lands to the injury of others;
b. The danger to life and property due to flooding or erosion damage;
c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
d. The importance of the services provided by the proposed facility to the community;
e. The necessity to the facility of a waterfront location, where applicable;
f. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
g. The compatibility of the proposed use with existing and anticipated development;
h. The relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
j. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

3. Upon consideration of the factors of Section 1.700(D)(2) and the purposes of SMP Appendix A, the hearing examiner may attach such conditions to the granting of variances as it deems

necessary to further the purposes of the Act, this SMP, and SMP Appendix A. The hearing examiner shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

4. Conditions for Variances.
a. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (a-k) in Section 1.700(D)(2) and the Shoreline Variance Review Criteria in Section VII(I) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases;
b. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in this section;
c. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result;
d. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
e. Variances shall only be issued upon:
1. A showing of good and sufficient cause;
2. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

5. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

6. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except Section 1.700(D)(4)(a), and otherwise complies with Section 1.700(E)(1), (3), and (4).

7. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

E. General standards.

In all areas of special flood hazards, the following standards are required:

1. Anchoring.

a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure; and
b. All manufactured homes shall be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

2. AH Zone Drainage. Adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

3. Construction Materials and Methods.
a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage; and
c. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

4. Utilities.
a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
b. A water well shall be located on high ground that is not in the floodway (WAC 173-160-171);
c. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters; and
d. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

5. Subdivision Proposals.
a. All subdivision proposals shall be consistent with the need to minimize flood damage;
b. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
d. For subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less), base flood elevation data shall be included with the proposal. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated by the project proponent.

6. Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above the highest adjacent grade in these zones may result in higher insurance rates.

F. Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 1.700(B)(2) or Section 1.700(C)(4)(d), the following provisions are required:

1. Residential Construction.

a. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation;

b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

2. The bottom of all openings shall be no higher than one foot above grade; and,

3. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

2. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

a. Be floodproofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the SMP Administrator as set forth in Section 1.700(C)(4)(f);

d. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in Section 1.700(F)(1)(b); and,

e. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one foot below).

3. Manufactured Homes.

a. All manufactured homes to be placed or substantially improved on sites:

1. Outside of a manufactured home park or subdivision;

2. In a new manufactured home park or subdivision;

3. In an expansion to an existing manufactured home park or subdivision; or,

4. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more

above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.
b. Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions be elevated so that either:
1. The lowest floor of the manufactured home is elevated one foot or more above the base flood elevation; or,
2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty six inches in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.

4. Recreational vehicles. Recreational vehicles, if otherwise permitted by this title, are required to either:
a. Be on the site for fewer than one hundred eighty consecutive days;
b. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
c. Meet the requirements of Section 1.700(F)(3) and the elevation and anchoring requirements for manufactured homes.

G. Floodways.

Located within areas of special flood hazard established in Section 1.700(B)(2) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:
1. Encroachments, including fill, new construction, substantial improvements, and other development are prohibited within the designated floodway unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.

2. Construction or reconstruction of residential structures is prohibited within designated floodways, except for:
a. Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area;
b. Repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure either: (a) before the repair, or reconstruction is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred;
c. Repairs or reconstruction of a substantially damaged residential structure as provided in RCW 86.16.041 as said section presently exists or is hereafter amended; and
d. Repairs, reconstruction, or replacement of existing farmhouses in designated floodways as provided in RCW 86.16.041 as said section presently exists or is hereafter amended. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and

which are the minimum necessary to assure safe living conditions, or any projects for improvements to structures identified as historic places shall not be included in the fifty percent.

3. If Section 1.700(G)(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 1.700(E), 1.700(F), 1.700(G), 1.700(H), and 1.700(I).

4. Excavation in the designated floodway is prohibited, except: (1) as otherwise required by law; (2) as part of a government funded or sponsored wildlife habitat enhancement project.

H. Standards for shallow flooding areas (AO Zones).

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

1. New construction and substantial improvements of residential structures and manufactured homes within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade to the structure, one foot or more above the depth number specified in feet on the community's FIRM (at least two feet above the highest adjacent grade to the structure if no depth number is specified);

2. New construction and substantial improvements of nonresidential structures within AO zones shall either:

a. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or

b. Together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as in Section 1.700(F)(2)(c).

3. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

4. Recreational vehicles placed on sites within AO Zones on the community's FIRM either:

a. Be on the site for fewer than one hundred eighty consecutive days;

b. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or,

c. Meet the requirements of Section 1.700(H)(1) and (3) and the anchoring requirements for manufactured homes set forth in Section 1.700(E)(1)(b).

I. Critical facility.

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (one hundred year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet or to the height of the five hundred year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

1.800 Definitions.

The following definitions supplement those found in Section VIII.

"Access roads" means a nonpublic vehicular access, established and maintained for, but not limited to, observing, operating, maintaining, repairing and/or replacing man-made improvements or natural resources.

"Active fault" means a fault that is considered likely to undergo renewed movement within a period of concern to humans. Faults are commonly considered to be active if the fault has moved one or more times in the last ten thousand years.

"Adjacent" means immediately adjoining (in contact with the boundary of the influence area) or within a distance less than that needed to separate activities from critical areas to ensure protection of the functions and values of the critical areas. Adjacent shall mean any activity or development located:

1. On site immediately adjoining a critical area; or
2. A distance equal to or less than the required critical area buffer width and building setback.

"Alteration" means any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to: grading, filling, dredging, channelizing, clearing (vegetation), applying pesticides, discharging waste, construction, compaction, excavation, modifying for stormwater management, relocating, or other activities that change the existing landform, vegetation, hydrology, wildlife, or habitat value, of critical areas.

"Aquifer recharge area" means an area that, due to the presence of certain soils, geology, and surface water, acts to recharge groundwater by percolation.

"Base flood elevation" means the water surface elevation of the base flood. It shall be referenced to the National Geodetic Vertical Datum of 1929 (NGVD).

“Channel Migration Hazard Area, Moderate” means a portion of the channel migration zone, as shown on King County's channel migration zone maps, that lies between the severe channel migration hazard area and the outer boundaries of the channel migration zone.

“Channel Migration Hazard Area, Severe” means a portion of the channel migration zone, as shown on King County's channel migration zone maps, that includes the present channel. The total width of the severe channel migration hazard area equals one hundred years times the average annual channel migration rate, plus the present channel width.

"Critical aquifer recharge area" means areas designated by WAC 365-190-080(2) that are determined to have critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). Critical aquifer recharge area categories:

1. Category I. Those areas designated by the city on the critical aquifer recharge area map as highly susceptible to groundwater contamination and that are located within a sole source aquifer or wellhead protection area.
2. Category II. Those areas designated by the city on the critical aquifer recharge area map that:

a. Have a medium susceptibility to groundwater contamination and are located in a sole source aquifer or wellhead protection area; or

b. Are highly susceptible to groundwater contamination and are not located in a sole source aquifer or wellhead protection area.

"Critical facility" means a facility where even a slight chance of flooding, inundation, or impact from a hazard event might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire and emergency installations, and installations that produce, use, or store hazardous materials or hazardous waste.

"Developable area" means a site or portion of a site that may be utilized as the location of development, in accordance with the rules of SMP Appendix A.

"Development permit" means any permit issued by the city of Carnation, or other authorized agency, for construction, land use, or the alteration of land.

"Erosion hazard area" means areas likely to become unstable, such as bluffs, steep slopes, and areas with unconsolidated soils. This includes lands or areas underlain by soils identified by the U.S. Department of Agriculture Soil Conservation Service as having "severe" or "very severe" erosion hazards. This includes, but is not limited to, the following groups of soils: Alderwood-Kitsap (AkF) occurring on slopes of fifteen percent or greater.

"Fish and wildlife habitat conservation areas" means areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5). These areas include:

1. Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
2. Habitats of local importance, including, but not limited to, areas designated as priority habitat by the State Department of Fish and Wildlife;
3. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish and wildlife habitat;
4. Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface water and watercourses within the jurisdiction of the state of Washington;
5. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; state natural area preserves and natural resources conservation areas; and
6. Land essential for preserving connections between habitat blocks and open spaces.

"Flood hazard area" means a designated zone on the FEMA flood insurance rate map (FIRM); this does not mean that actual flooding has or will occur. These areas consist of the following components:

1. Floodplain. The total area subject to inundation by the base flood.
2. Flood Fringe. That portion of the floodplain outside the floodway which is generally covered by floodwaters during the base flood. It is generally associated with standing water rather than rapidly flowing water.

3. Floodway. The channel of the stream and that portion of the adjoining floodplain that is necessary to contain and discharge the base flood flow without increasing the base flood elevation.

"Flood insurance rate map (FIRM)" means the official map on which the Federal Insurance Administration has delineated many areas of flood hazard, floodways, and the risk premium zones (CFR44 Part 59).

"Flood insurance study" means the official report provided by the Federal Insurance Administration that includes the flood profiles and the FIRM (CFR44 Part 59).

"Flood proofing" means adaptations that ensure a structure is substantially resistant to the passage of water below the flood protection elevation and resists hydrostatic and hydrodynamic loads and effects of buoyancy.

"Flood protection elevation" means an elevation that is one foot above the base flood elevation.

"Floodway dependent structure" means structures that are dependent on a location in the floodway in order to implement their purpose, including, but not limited to, dams, levees and pump stations, stream bank stabilization, boat launches and related recreational structures, bridge piers and abutments, and fisheries enhancement or stream restoration projects.

"Formation" means an assemblage of earth materials grouped together into a unit that is convenient for description or mapping.

“Formation, Confining” means the relatively impermeable formation immediately overlaying a confined aquifer.

"Frequently flooded areas" means a designated AE zone on the FEMA flood insurance rate map (FIRM), this does not mean that actual flooding has or will occur.

"Functions and values" means the beneficial roles served by critical areas, including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, and recreation. This should be divided into functions and also values.

"Geologically hazardous areas" means areas that may not be suited to development consistent with public health, safety or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include erosion, landslide, seismic, volcanic hazards, and mine.

"Hazard areas" means areas designated as frequently flooded or geologically hazardous areas due to potential for erosion, landslide, seismic activity, mine collapse, or other geologically hazardous conditions, including steep slopes.

"Hazardous liquid pipeline" as defined by RCW 81.88.040, "hazardous liquid" means: (a) petroleum, petroleum products, or anhydrous ammonia as those terms are defined in 49 CFR Part 195; and (b) carbon dioxide. Pipeline, pipeline system, or hazardous liquid pipeline means all parts of a pipeline facility through which a hazardous liquid moves in transportation. Pipeline or pipeline system does not include process or transfer pipelines.

"Heavy equipment" means such construction machinery as backhoes, treaded tractor, dump trucks, and front-end loaders.

"High-intensity land use" means land uses consisting of commercial, urban, industrial, institutional, retail, residential with more than one unit per acre, agricultural (dairies, nurseries, raising and harvesting crops, requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), and hobby farms.

"Landslide" means episodic down slope movement of a mass of soil or rock that includes, but is not limited to, rock falls, slumps, mudflows, and earth flows.

"Landslide hazard areas" means areas that are potentially subject to risk of mass movement due to a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible to landslide because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors, and include, at a minimum, the following:

1. Areas of historic failures, such as:

a. Those areas delineated by the United States Department of Agriculture Natural Resources Conservation Service as having a significant limitation for building site development; or

b. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the United States Geological Survey or Washington Department of Natural Resources.

2. Areas with all three of the following characteristics:

a. Slopes steeper than fifteen percent;

b. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

c. Springs or groundwater seepage.

3. Areas that have shown movement during the holocene epoch (from ten thousand years ago to the present) or which are underlain or covered by mass wastage debris of this epoch;

4. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;

5. Slopes having gradients steeper than eighty percent subject to rockfall during seismic shaking;

6. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action, including stream channel migration zones;

7. Areas that show evidence of, or are at risk from snow avalanches;

8. Areas located in an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and

9. Any area with a slope of forty percent or steeper and with a vertical relief of ten or more feet except areas composed of bedrock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical relief.

"Lowest floor" means the lowest enclosed area (including basement) of a structure. An area used solely for parking of vehicles, building access, or storage, in an area other than a basement area, is not considered a building's lowest point, provided that the enclosed area meets all of the structural requirements of the flood hazard development standards.

"Low-intensity land use" means and includes, but is not limited to, forestry and open space (such as passive recreation and natural resources preservation).

"Minor utility project" means the placement of a utility pole, street sign, anchor, vault, or other small component of a utility facility, where the disturbance of an area is less than seventy-five square feet.

"Moderate-intensity land use" means land uses associated with moderate levels of human disturbance or substantial habitat impacts including, but not limited to, low-density residential (no more than one home per five acre), active recreation, and moderate agricultural land uses.

"Off-site watercourse mitigation" means within the same watercourse drainage subbasin as the proposed alteration site and beyond one-half mile upstream or downstream.

"On-site watercourse mitigation" means within the same stream drainage subbasin as the alteration site and within one-half mile upstream or downstream.

"Practical alternative" means an alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes, and having less impact to critical areas.

"Primary association area" means the area used on a regular basis by, in close association with, or is necessary for the proper functioning of the habitat of a critical species. "Regular basis" means the habitat area is known normally or usually to contain the critical species. Regular basis is species population dependent. Species that exist in low numbers may be present infrequently yet rely on certain habitat types.

1. A qualified professional for habitats or wetlands must have a degree in biology or a related environmental science and professional experience related to the subject.
2. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.
3. A qualified professional for critical aquifer recharge areas must be a hydrologist, geologist, engineer, or other scientist with experience in preparing hydrological assessments.

"Riparian habitat" means areas adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems that mutually influence each other.

"Seismic hazard areas" means areas that are subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement or subsidence, surface faulting, or soil liquefaction. Settlement and soil liquefaction conditions occur in areas underlain by cohesionless (soft or loose) soils of low density (such as alluvium), typically in association with a shallow groundwater table and are typically located on the floors of river valleys. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington, and ground settlement may occur with shaking. The strength of ground shaking is primarily affected by:

1. The magnitude of an earthquake;
2. The distance from the source of an earthquake;
3. The type or thickness of geologic materials at the surface; and
4. The type of subsurface geologic structure.

"Sole source aquifers" means areas designated by the U.S. Environmental Protection Agency under the Safe Drinking Water Act of 1974, Section 1424(e). The aquifer(s) must supply fifty percent or more of the drinking water for an area without a sufficient replacement available.

Species, Threatened and Endangered. "Threatened and endangered species" means those native species that are listed in rule by the State Department of Fish and Wildlife pursuant to RCW 77.12.070 as threatened (WAC 232-12-011) or endangered (WAC 232-12-014), or that are listed as threatened and endangered under the federal Endangered Species Act (16 U.S.C. 1533).

"Steep slopes" means those slopes forty percent or steeper within a vertical elevation change of at least ten feet. A slope is defined by establishing its toe and top and is measured by averaging the inclination over at least ten feet of vertical relief.

"Transport" means the conveyance of silt or sediment overland during a rain event.

"Unavoidable" means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

"Understory" means the vegetation layer of a forest that includes shrubs, herbs, grasses, and grass-like plants, but excludes trees.

"Utility corridor" means the linear alignment location of a utility such as water, wastewater, stormwater, electric or communication lines.

"Watercourse--Classes" means waters classified according to WAC 222-16-031 as follows:

1. Class I Water. All waters, within the ordinary high-water mark, as inventoried as "shorelines of the state" under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW, but not including those waters' associated wetlands as defined in Chapter 90.58 RCW.
2. Class 2 Water. Segments of natural waters that are not classified as Class 1 water and have a high fish, wildlife, or human use. These are segments of natural waters and periodically inundated areas of their associated wetlands, which:

a. Are diverted for domestic use by more than one hundred residential or camping units or by a public accommodation facility licensed to serve more than ten persons, where such diversion is determined by the Washington State Department of Natural Resources to be a valid appropriation of water and only considered Type 2 water upstream from the point of such diversion for one thousand five hundred feet or until the drainage area is reduced by fifty percent, or whichever is less;

b. Are diverted for use by federal, state, tribal, or private fish hatcheries. Such waters shall be considered Class 2 water upstream from the point of diversion for one thousand five hundred feet, including tributaries if highly significant for protection of downstream water quality;

c. Are within a federal, state, local, or private campground having more than thirty camping units: provided, that the water shall not be considered to enter a campground until it reaches the boundary of the park lands available for public use and comes within one hundred feet of a camping unit;

d. Are used by fish for spawning, rearing or migration. Waters having the following characteristics are presumed to have highly significant fish populations;

e. Stream segments having a defined channel twenty feet or greater within the bankfull width and having a gradient of less than four percent;

f. Lakes, ponds, or impoundments having a surface area of one acre or greater at seasonal low water;

g. Are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria;

h. The site must be connected to a fish bearing stream and be accessible during some period of the year; and

i. The off-channel water must be accessible to fish through a drainage with less than a five percent gradient.

3. Class 3 Water. Segments of natural waters that are not classified as Class 1 or 2 waters and have a moderate to slight fish, wildlife, and human use. These are segments of natural waters and periodically inundated areas of their associated wetlands which:

a. Are diverted for domestic use by more than ten residential or camping units or by a public accommodation facility licensed to serve more than ten persons, where such diversion is determined by the Washington State Department of Natural Resources to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type 3 water upstream from the point of such diversion for one

thousand five hundred feet or until the drainage area is reduced by fifty percent, whichever is less; or

b. Are used by fish for spawning, rearing, or migration. The requirements for determining fish use are described in the State Forest Practices Board Manual, Section 13. If fish use has not been determined:

i. Waters having the following characteristics are presumed to have fish use:

(A) Stream segments having a defined channel of two feet or greater within the bankfull width in Western Washington and having a gradient of sixteen percent or less;

(B) Stream segments having a defined channel or two feet or greater within the bankfull width in Western Washington, and having a gradient greater than sixteen percent and less than or equal to twenty percent, and having greater than fifty acres in contributing basin size in Western Washington, based on hydrographic boundaries;

(C) Ponds or impoundments having a surface area of less than one acre at seasonal low water and having an outlet to a fish stream; and

(D) Ponds of impoundments having a surface area greater than one-half acre at seasonal low water.

ii. The Washington State Department of Natural Resources shall waive or modify the characteristics in subsection (a)(i) of this definition, where:

(A) Waters have confirmed, long-term, naturally occurring water quality parameters incapable of supporting fish;

(B) Snowmelt streams have short flow cycles that do not support successful life history phases of fish. These streams typically have no flow in the winter months and discontinue flow by June 1st; or

(C) Sufficient information about a geomorphic region is available to support a departure from the characteristics in subsection (a)(i) of this definition, as determined in consultation with the Washington Department of Fish and Wildlife, Washington State Department of Ecology, affected tribes, and interested parties.

4. Class 4 Water. All segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are waters that do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Class 4 waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations (see State Forest Practices Board Manual, Section 23), then Class 4 waters begin at a point along the channel where the contributing basin area isat least fifty-two acres.

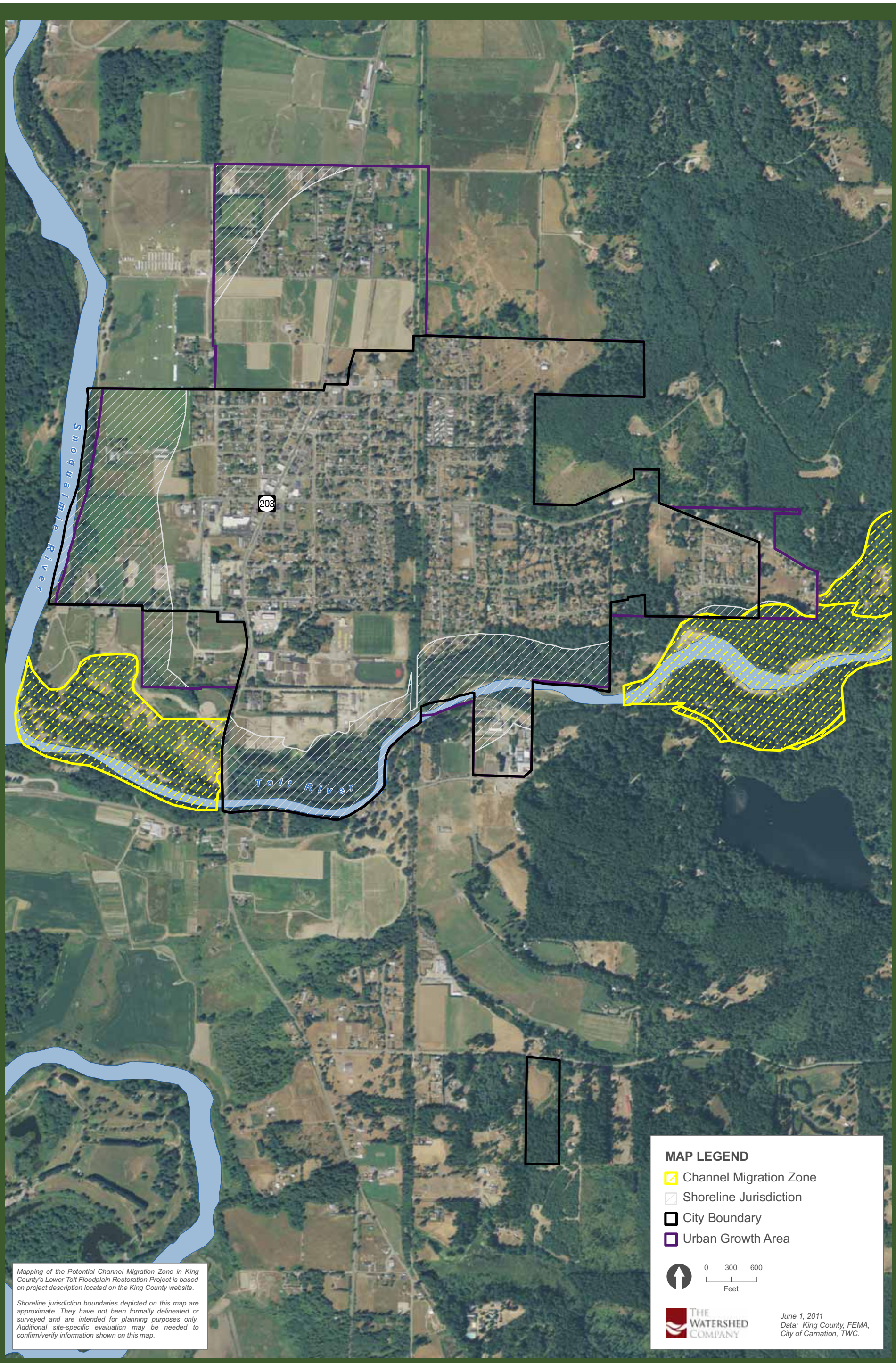
5. Class 5 Waters. All segments of natural waters within the bankfull width of the defined channels that are not Class 1, 2, 3, or 4 waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of the year and are not located downstream from any stream reach that is a Class 4 water. Class 5 waters must be physically connected by an aboveground channel system to Class 1, 2, 3, or 4 waters.

"Wetlands rating system" means wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington, Department of Ecology, Publication #04-06-025, or as revised.

Appendix B: SMP Regulatory Channel Migration Zone Map

Appendix B: SMP Regulatory Channel Migration Zone

City of Carnation Shoreline Master Program

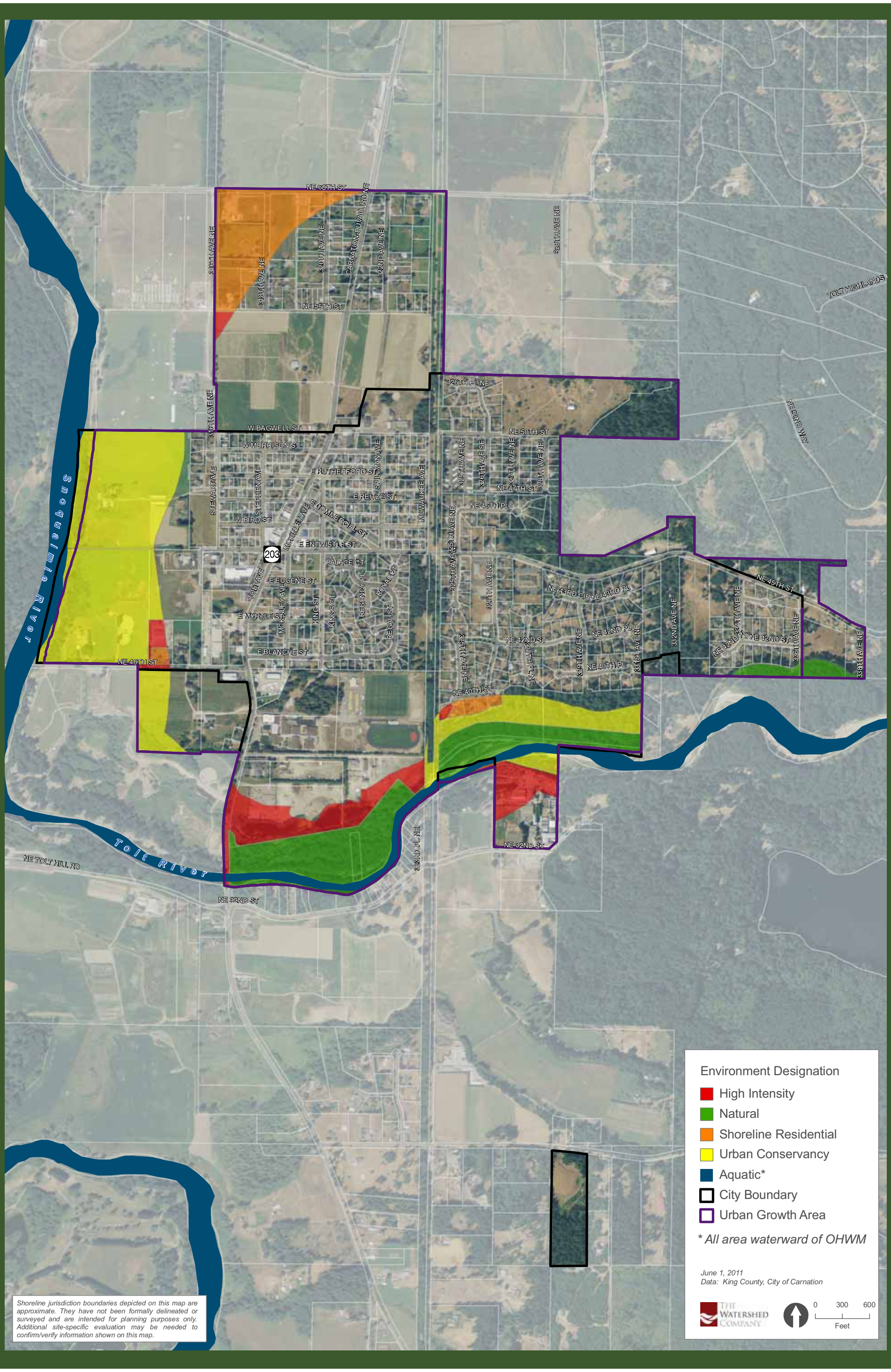


Mapping of the Potential Channel Migration Zone in King County's Lower Tolt Floodplain Restoration Project is based on project description located on the King County website.

Shoreline jurisdiction boundaries depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.

Appendix C: Environment Designations Map

Shoreline Environment Designation

City of Carnation Shoreline Master Program

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