



CHAPTER TEN

SHORELINE ELEMENT

The City of Kent Shoreline Master Program (SMP) is a planning document that outlines goals and policies for the shorelines of the City, pursuant to the Shoreline Management Act, Chapter 90.58 RCW (SMA) and the Shoreline Guidelines (WAC 173-26) and also establishes regulations for development occurring within shoreline jurisdiction. The goals and policies associated with the SMP are summarized below.

The SMP addresses a broad range of uses that could be proposed in the shoreline area. This breadth is intended to ensure that the Kent shoreline area is protected from activities and uses that, if unmonitored, could be developed inappropriately and could cause damage to the ecological system of the shoreline, displace “preferred uses” as identified in Chapter 90.58 RCW or cause the degradation of shoreline aesthetic values.

ENVIRONMENT DESIGNATION POLICIES

Pursuant to the Shoreline Guidelines, shorelines of the state that meet the criteria established in WAC 173-26-211 are given a shoreline environment designation. The purpose of the shoreline designation system is to ensure that land use, development or other activity occurring within the designated shoreline jurisdiction is appropriate for that area and that consideration is given to the special requirements of that environment. Policies related to each environment designation are found below. The policies are numbered exactly as they are found in the SMP.

1. “Natural-Wetlands” (N-W) Environment

c. Management Policies

Uses

1. Any use that would substantially degrade the ecological functions or natural character of the designated wetland area should be prohibited.
2. New land division, development or shoreline modification that would reduce the capability of the wetlands to perform normal ecological functions should not be allowed.
3. Uses that are consumptive of physical, visual, and biological resources should be prohibited.

Access and Improvements

4. Access may be permitted for scientific, historical, cultural, educational, and low intensity water-oriented recreational purposes such as nature study that do not impact ecological functions, provided that no significant ecological impact on the area will result.
5. Physical alterations should only be considered when they serve to protect or enhance a significant, unique, or highly valued feature that might otherwise be degraded or destroyed or for public access where no significant ecological impacts would occur.

Implementing Regulations

6. The ecological resources in the Natural-Wetlands environment should be protected through the provisions in the Critical Areas section of this SMP.

2. “High Intensity” (H-I) Environment

c. Management Policies

Uses

1. In regulating uses in the “High-Intensity” environment, first priority should be given to water dependent uses. Second priority should be given to water-related and water-enjoyment uses. Given the fact that commercial navigation on the Green River is limited by the channel configuration, nonwater-oriented uses may be allowed on shorelands separated from the shoreline by other properties, such as the Green River Trail corridor, and where public access improvements and/or shoreline restoration is included as part of the development. Nonwater-oriented uses may also be permitted where water-dependent uses, public access and shoreline restoration is infeasible, as determined by the City’s Shoreline Administrator.

The City’s Shoreline Administrator will consult the provisions of this SMP and determine the applicability and extent of ecological restoration and/or public access required. The extent of ecological restoration shall be that which is reasonable given the specific circumstances of development in the “High-Intensity” environment.

2. Developments in the “High-Intensity” environment should be managed so that they enhance and maintain the shorelines for a variety of urban uses, with priority given to water-dependent, water-related and water-enjoyment uses.

Public Access and Aesthetics

3. Existing public access ways should not be blocked or diminished.
4. 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. These objectives may be implemented either through this SMP or other City ordinances.
5. In order to make maximum use of the available shoreline resource and to accommodate future water-oriented uses, shoreline restoration and/or public access, the redevelopment and renewal of substandard, degraded, obsolete urban shoreline areas should be encouraged.

3. “Urban Conservancy–Open Space” (UC-OS) Environment

c. Management Policies

Uses

1. Water-oriented recreational uses should be given priority over nonwater-oriented uses. Water-dependent recreational uses should be given highest priority.
2. Commercial activities enhancing the public’s enjoyment of publicly accessible shorelines may be appropriate.
3. Water-dependent and water-enjoyment recreation facilities that do not deplete the resource over time, such as boating facilities, angling, wildlife viewing trails and swimming beaches, are preferred uses, provided significant ecological impacts to the shoreline are avoided or mitigated.
4. Development that hinders natural channel movement in channel migration zones should not be allowed (refer to the Channel Migration Zone Map, Figure No. 10.2 in the Inventory and Analysis Report).

Ecological Restoration and Public Access

3. During development and redevelopment, all reasonable efforts, as determined by the City, should be taken to restore ecological functions.
4. Standards should be established for shoreline stabilization measures, vegetation conservation, water quality and shoreline modifications within the “Urban Conservancy-Open Space” designation to ensure that new development does not further degrade the shoreline and is consistent with an overall goal to improve ecological functions and habitat.
5. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.

4. “Urban Conservancy–Low Intensity” (UC-LI) Environment

c. Management Policies

Uses

1. Water-oriented uses should be given priority over nonwater-oriented uses. For shoreline areas adjacent to commercially navigable waters, water-dependent uses should be given highest priority.
2. Uses in the “Urban Conservancy–Low Intensity” environment should be limited to those which are non-consumptive (i.e., do not deplete over time) of the shoreline area’s physical and biological resources and uses that do not substantially degrade ecological functions or the rural or natural character of the shoreline area. Shoreline habitat restoration and environmental enhancement are preferred uses.
3. Agricultural practices, when consistent with provisions of this chapter, may be allowed. Except as a Conditional Use, nonwater-oriented commercial and industrial uses should not be allowed.
4. Where allowed, commercial uses should include substantial shoreline restoration and public access.
5. Water-dependent and water-enjoyment recreation facilities that do not deplete the resource over time, such as boating facilities, angling, wildlife viewing trails and swimming beaches, are preferred uses, provided significant ecological impacts to the shoreline are avoided or mitigated.
6. Developments and uses that would substantially degrade or permanently deplete habitat or the physical or biological resources of the area or inhibit stream movement in channel migration zones should not be allowed. (Refer to the Channel Migration Zone Map, Figure No. 10.2 in the Inventory and Analysis Report).

Ecological Management and Restoration

7. During development and redevelopment, all reasonable efforts should be taken to restore ecological functions. Where feasible, restoration should be required of all nonwater-dependent development on previously developed shorelines.

The City’s Shoreline Administrator will consult the provisions of this SMP and determine the applicability and extent of ecological restoration required. The extent of ecological restoration shall be that which is reasonable given the specific circumstances of development in the “Urban Conservancy – Low Intensity” environment.
8. Regulatory standards should be established for shoreline stabilization measures, vegetation conservation, water quality and shoreline modifications within the “Urban Conservancy-Low Intensity” designation to ensure that new development does not further degrade the shoreline and is consistent with an overall goal to improve ecological functions and habitat.
9. Where appropriate, standards for landscaping and visual quality should be included.

Shoreline Modification and Development Impacts

10. Construction of new structural shoreline stabilization and flood control works should not be allowed except where there is a documented need to protect public safety, an existing structure or ecological functions and mitigation is applied (See Chapter 4: Shoreline Modification Provisions). New development should be designed and located to preclude the need for structural shoreline stabilization or flood control.
11. Development of the area within shoreline jurisdiction should be limited to a maximum of 12 percent total impervious surface area, unless an alternative standard is developed based on scientific information that meets the provisions of this chapter and protects shoreline ecological functions.
12. New shoreline stabilization, flood control measures, vegetation removal and other shoreline modifications should be designed and managed to ensure that the natural shoreline functions are protected and restored over time. Shoreline ecological restoration should be required of new nonwater-dependent development or redevelopment where the shoreline ecological functions have been degraded.
13. Activities or uses that would strip the shoreline of vegetative cover, cause substantial erosion or sedimentation or adversely affect wildlife or aquatic life should be prohibited.
14. Preservation of ecological functions should be balanced with public access and recreation objectives and should have priority over development objectives whenever a conflict exists.

5. “Shoreline Residential” (SR) Environment

c. Management Policies

Uses

1. Commercial development should be limited to water-oriented uses and not conflict with the residential character of lands in the “Shoreline Residential” environment.
2. Water-oriented recreational uses should be allowed.
3. Adequate land area and services should be provided.
4. Land division and development should be permitted only 1) when adequate setbacks or buffers are provided to protect ecological functions, 2) where there is adequate access, water, sewage disposal, utilities systems and public services available and 3) where the environment can support the proposed use in a manner which protects or restores the ecological functions.
5. Development standards for setbacks or buffers, shoreline stabilization, vegetation conservation, critical area protection and water quality should be established to protect and, where significant ecological degradation has occurred, restore ecological functions over time.
6. Multi-family development and subdivisions of land into more than four parcels should provide community access for residents of that development.
7. New residential development should be located and designed so that future shoreline stabilization is not required.

6. “Aquatic” Environment

c. Management Policies

1. New over-water structures should be prohibited except for water-dependent uses, public access or ecological restoration.
2. The size of new over-water structures should be limited to the minimum necessary to support the structure’s intended use.
3. In order to reduce the impacts of shoreline development and increase effective use of water resources, multiple uses of over-water facilities should be encouraged.
4. Provisions for the “Aquatic” environment should be directed towards maintaining and restoring habitat for aquatic species.
5. Uses that cause significant ecological impacts to critical freshwater habitats should not be allowed. Where those uses are necessary to achieve the objectives of RCW 90.58.020, their impacts shall be mitigated according to the sequence defined in Chapter 3 Section B.4.
6. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.
7. Abandoned and neglected structures that cause adverse visual impacts or are a hazard to public health, safety and welfare should be removed or restored to a usable condition consistent with this SMP.

GENERAL POLICIES

General policies are applicable to all uses and activities (regardless of shoreline environment designation) that may occur along the City's shorelines. General Provisions policies are found below. The policies are numbered exactly as they are found in the SMP.

1. Universally Applicable Policies and Regulations

b. Policies

1. The City should periodically review conditions on the shoreline and conduct appropriate analysis to determine whether or not other actions are necessary to protect and restore the ecology to ensure no net loss of ecological functions, protect human health and safety, upgrade the visual qualities and enhance residential and recreational uses on the City's shorelines. Specific issues to address in such evaluations include, but are not limited to:
 - a. Water quality.
 - b. Conservation of aquatic vegetation (control of noxious weeds and enhancement of vegetation that supports more desirable ecological and recreational conditions).
 - c. Upland vegetation.
 - d. Changing visual character as a result of new residential development, including additions, and individual vegetation conservation practices.
 - e. Shoreline stabilization and modifications.
2. The City should keep records of all project review actions within shoreline jurisdiction, including shoreline permits and letters of exemption.
3. Where appropriate, the City should pursue the policies of this SMP in other land use, development permitting, public construction, and public health and safety activities. Specifically, such activities include, but are not limited to:
 - a. Water quality and storm water management activities, including those outside shoreline jurisdiction but affecting the shorelines of the state.
 - b. Aquatic vegetation management.
 - c. Health and safety activities, especially those related to sanitary sewage.
 - d. Public works and utilities development.
4. The City should involve affected federal, state, and tribal governments in the review process of shoreline applications.

2. Archaeological and Historic Resources

b. Policies

1. Due to the limited and irreplaceable nature of the resource, public or private uses, activities and development should be prevented from destroying or damaging any site having historic, cultural, scientific or educational value as identified by the appropriate authorities and deemed worthy of protection and preservation.

3. Critical Areas

Critical Areas in SMP jurisdiction are regulated under Kent's Critical Areas Regulations, Ordinance No. 3805 (08/15/06), codified under Chapter 11.06 KCC. The policies and goals for critical areas are found in section 11.06.020 KCC, in the Land Use Element (LU-16, LU-17, LU-18) and the Utilities Element (U-7, U-8, U-9, U-10).

4. Environmental Impacts

b. Policies

1. In implementing this SMP, the City should take necessary steps to ensure compliance with Chapter 43.21C RCW, the Washington State Environmental Policy Act of 1971, and its implementing guidelines.
2. All significant adverse impacts to the shoreline should be avoided or, if that is not possible, minimized to the extent feasible and provide mitigation to ensure no net loss of ecological function.

5. Flood Hazard Reduction and River Corridor Management

b. Policies

1. The City should implement a comprehensive program to manage the City's riparian corridors that integrates the following City ordinances and activities:
 - a. Regulations in this SMP.
 - b. The City's Critical Area Regulations.
 - c. The City's zoning code.
 - d. The City's Drainage Master Plan, Surface Water Design Manual and implementing regulations.
 - e. The City's participation in the National Flood Insurance Program and compliance with the State's floodplain management law at Chapter 86.16. RCW.
 - f. The construction or improvement of new public facilities, including roads, dikes, utilities, bridges and other structures.
 - g. The ecological restoration of selected shoreline areas.
2. In regulating development on shorelines within SMA jurisdiction, the City should endeavor to achieve the following:
 - a. Maintenance of human safety.
 - b. Protection and, where appropriate, the restoration of the physical integrity of the ecological system processes, including water and sediment transport and natural channel movement.
 - c. Protection of water quality and natural groundwater movement.
 - d. Protection of fish, vegetation and other life forms and their habitat vital to the aquatic food chain.
 - e. Protection of existing legal uses and legal development (including nonconforming development) unless the City determines relocation or abandonment of a use or structure is the only feasible option or that there is a compelling reason to the contrary based on public concern and the provisions of the SMA.
 - f. Protection of recreation resources and aesthetic values, such as point and channel bars, islands and other shore features and scenery.
 - g. When consistent with the provisions a. through f. above, provide for public access and recreation, consistent with Chapter 3 Section B.7.
3. The City should undertake flood hazard planning, where practical, in a coordinated manner among affected property owners and public agencies and consider entire drainage systems or sizable stretches of rivers, lakes or marine shorelines. This planning should consider the off-site erosion and accretion or flood damage that might occur as a result of stabilization or protection structures or activities. Flood hazard management planning should fully employ nonstructural approaches to minimizing flood hazard to the extent feasible.
4. The City should give preference to and use nonstructural solutions over structural flood control devices wherever feasible, including prohibiting or limiting development in historically flood-prone areas, regulating structural design and limiting increases in peak storm water runoff from new upland development, public education and land acquisition for additional flood storage. Structural solutions to reduce shoreline hazard should be allowed only after it is demonstrated that nonstructural solutions would not be able to reduce the hazard.

5. Where structural solutions are rebuilt, fish-friendly structures such as setback levees should be used. In the Lower Green River, every opportunity should be taken to set back levees and revetments to the maximum extent practicable.
6. In designing publicly financed or subsidized works, the City should provide public pedestrian access to the shoreline for low-impact outdoor recreation.
7. The City should encourage the removal or breaching of dikes to provide greater wetland area for flood water storage and habitat; provided, such an action does not increase the risk of flood damage to existing human development.

6. Parking

b. Policies

1. Parking should be planned to achieve optimum use. Where possible, parking should serve more than one use (e.g. serving recreational use on weekends, commercial uses on weekdays).
2. Where feasible, parking for shoreline uses should be provided in areas outside shoreline jurisdiction.
3. Low-impact parking facilities, such as permeable pavements, are encouraged.

7. Public Access

b. Policies

1. Public access should be considered in the review of all private and public developments with the exception of the following:
 - a. One- and two-family dwelling units; or
 - b. Where deemed inappropriate due to health, safety and environmental concerns.
2. Developments, uses and activities on or near the shoreline should not impair or detract from the public's access to the water or the rights of navigation.
3. Public access should be provided as close as possible to the water's edge without causing significant ecological impacts and should be designed in accordance with the Americans with Disabilities Act.
4. Opportunities for public access should be identified on publicly owned shorelines. Public access afforded by shoreline street ends, public utilities and rights-of-way should be preserved, maintained and enhanced.
5. Public access should be designed to provide for public safety and comfort and to minimize potential impacts to private property and individual privacy. There should be a physical separation or other means of clearly delineating public and private space in order to avoid unnecessary user conflict.
6. Public views from the shoreline upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excessive removal of existing native vegetation that partially impairs views.
7. Public access and interpretive displays should be provided as part of publicly funded restoration projects where significant ecological impacts can be avoided.
8. City parks, trails and public access facilities adjacent to shorelines should be maintained and enhanced in accordance with City and County plans.
9. Commercial and industrial waterfront development should be encouraged to provide a means for visual and pedestrian access to the shoreline area wherever feasible.
10. The acquisition of suitable upland shoreline properties to provide access to publicly owned shorelands should be encouraged.
11. The City should acquire and develop waterfront property on Panther Lake, in the event of annexation, to provide public access to the shoreline.

8. Shorelines of State-Wide Significance

b. Policies

In implementing the objectives of RCW 90.58.020 for shorelines of statewide significance, the City will base decisions in preparing and administering this SMP on the following policies in order of priority, 1 being the highest and 6 being lowest.

1. Recognize and protect the state-wide interest over local interest.
 - a. Solicit comments and opinions from groups and individuals representing state-wide interests by circulating the SMP, and any proposed amendments affecting shorelines of state-wide significance, to state agencies, adjacent jurisdictions, citizen's advisory committees and local officials and state-wide 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 ecology and other scientific fields pertinent to shoreline management.
2. Preserve the natural character of the shoreline.
 - a. Designate and administer shoreline environments and use regulations to protect and restore the ecology and environment of the shoreline as a result of man-made intrusions on shorelines.
 - b. Upgrade and redevelop those areas where intensive development already exists in order to reduce adverse impact on the environment and to accommodate future growth rather than allowing high intensity uses to extend into low-intensity use or underdeveloped areas.
 - c. Protect and restore existing diversity of vegetation and habitat values, wetlands and riparian corridors associated with shoreline areas.
 - d. Protect and restore habitats for State-listed "priority species."
3. Support actions that result in long-term benefits over short-term benefits.
 - a. Evaluate the short-term economic gain or convenience of developments relative to the long-term and potentially costly impairments to the natural shoreline.
 - b. In general, preserve resources and values of shorelines of state-wide significance for future generations and restrict or prohibit development that would irretrievably damage shoreline resources.
4. Protect the resources and ecology of the shoreline.
 - a. All shoreline development should be located, designed, constructed and managed to avoid disturbance of and minimize adverse impacts to wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.
 - b. Actively promote aesthetic considerations when contemplating new development, redevelopment of existing facilities or general enhancement of shoreline areas.
 - c. Shoreline development should be managed to ensure no net loss of ecological functions.
5. Increase public access to publicly owned areas of the shoreline.
 - a. Give priority to developing paths and trails to shoreline areas, linear access along the shorelines, especially to the maintenance and enhancement of the Green River Trail, which is a regional recreational and transportation resource.
 - b. Locate development landward of the ordinary high water mark so that access is enhanced.
6. Increase recreational opportunities for the public on the shoreline.
 - a. Plan for and encourage development of facilities for recreational use of the shoreline.
 - b. Reserve areas for lodging and related facilities on uplands well away from the shorelines with provisions for nonmotorized access to the shoreline.

9. Signage

b. Policies

1. Signs should be designed and placed so that they are compatible with the aesthetic quality of the existing shoreline and adjacent land and water uses.
2. Signs should not block or otherwise interfere with visual access to the water or shorelands.

10. Utilities (Accessory)

b. Policies

1. Accessory utilities should be properly installed so as to protect the shoreline and water from contamination and degradation to ensure no net loss of ecological functions.
2. Accessory utility facilities and rights-of-way should be located outside of the shoreline area to the maximum extent possible. When utility lines require a shoreline location, they should be placed underground.
3. Accessory utility facilities should be designed and located in a manner which preserves the natural landscape and shoreline ecological processes and functions and minimizes conflicts with present and planned land uses.

11. Vegetation Conservation

b. Policies

1. Vegetation within the City shoreline areas should be enhanced over time to provide a greater level of ecological functions, human safety and property protection. To this end, shoreline management activities, including the provisions and implementation of this SMP, should be based on a comprehensive approach that considers the ecological functions currently and potentially provided by vegetation on different sections of the shoreline, as described in Chapter 5 of the June 30, 2009, City of Kent Final Shoreline Inventory and Analysis Report.
2. This SMP in conjunction with other City development regulations should establish a coordinated and effective set of provisions and programs to protect and restore those functions provided by shoreline vegetation.
3. Aquatic weed management should stress prevention first. Where active removal or destruction is necessary, it should be the minimum to allow water-dependent activities to continue, minimize negative impacts to native plant communities and include appropriate handling or disposal of weed materials.
4. The removal of invasive or noxious weeds and replacement with native vegetation should be encouraged. Removal of noxious or invasive weeds should be conducted using the least-impacting method feasible, with a preference for mechanical rather than chemical means.

12. Water Quality and Quantity

b. Policies

1. All shoreline uses and activities should be located, designed, constructed and maintained to avoid significant ecological impacts that alter water quality, quantity or hydrology.
2. The City should require reasonable setbacks, buffers and storm water storage basins and encourage low-impact development techniques and materials to achieve the objective of lessening negative impacts on water quality.
3. All measures for controlling erosion, stream flow rates or flood waters through the use of stream control works should be located, designed, constructed and maintained so that net off-site impacts related to water do not degrade the existing water quality and quantity.

4. As a general policy, the City should seek to improve water quality, quantity (the amount of water in a given system, with the objective of providing for ecological functions and human use) and flow characteristics in order to protect and restore ecological functions and ecosystem-wide processes of shorelines within Shoreline Management Act jurisdiction. The City should implement this policy through the regulation of development and activities, through the design of new public works, such as roads, drainage and water treatment facilities and through coordination with other local, state and federal water quality regulations and programs. The City should implement the 2002 City of Kent Surface Water Design Manual, as updated and adopted by City ordinance.
5. All measures to treat runoff in order to maintain or improve water quality should be conducted on-site before shoreline development creates impacts to water.
6. Shoreline use and development should minimize the need for chemical fertilizers, pesticides or other similar chemical treatments to prevent contamination of surface and ground water and/or soils, and adverse effects on shoreline ecological functions and values.

SHORELINE MODIFICATION POLICIES

Shoreline modifications are structures or actions that permanently change the physical configuration or quality of the shoreline, particularly at the point where land and water meet. Shoreline modification activities include, but are not limited to, structures such as revetments, bulkheads, levees, breakwaters, docks and floats. Actions such as clearing, grading, landfilling and dredging are also considered shoreline modifications.

Generally, shoreline modification activities are undertaken for the following reasons:

1. To prepare a site for a shoreline use
2. To provide shoreline stabilization or shoreline protection
3. To support an upland use

The policies in this section are intended to prevent or mitigate the adverse environmental impacts of proposed shoreline modifications. Policies related to each shoreline modification are found below. The policies are numbered exactly as they are found in the SMP.

1. General Policies and Regulations

b. Policies

1. Structural shoreline modifications should be allowed only where they are demonstrated to be necessary:
 - a. To support or protect an allowed primary structure or a legally existing shoreline use that is in danger of loss or substantial damage, or;
 - b. For reconfiguration of the shoreline to mitigate impacts or enhance the shoreline ecology.
2. The adverse effects of shoreline modifications should be reduced, as much as possible, and shoreline modifications should be limited in number and extent.
3. Allowed shoreline modifications should be appropriate to the specific type of shoreline and environmental conditions in which they are proposed.
4. The City should take steps to assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions, as stated in WAC 173-26-231. This is to be achieved by preventing unnecessary shoreline modifications, by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions, and by requiring mitigation of identified impacts resulting from shoreline modifications.
5. Where applicable, the City should base decisions on available scientific and technical information and a comprehensive analysis of site-specific conditions provided by the applicant, as stated in WAC 173-26-231.
6. Impaired ecological functions should be enhanced where feasible and appropriate while accommodating permitted uses, as stated in WAC 173-26-231. As shoreline modifications occur, the City will incorporate all feasible measures to protect ecological shoreline functions and ecosystem-wide processes.
7. In reviewing shoreline permits, the City should require steps to reduce significant ecological impacts according to the mitigation sequence in WAC 173-26-201(2)(e).

2. Shoreline Stabilization (Including Bulkheads)

b. Policies

1. Non-structural stabilization measures are preferred over “soft” structural measures. “Soft” structural shoreline stabilization measures are strongly preferred over hard structural shoreline stabilization. Proposals for hard and soft structural solutions, including bulkheads, should be allowed only when it is demonstrated that nonstructural methods are not “feasible”, as defined in Chapter 6. Hard structural shoreline stabilization measures should be allowed only when it is demonstrated that soft structural measures are not feasible.
2. Bulkheads and other structural stabilizations should be located, designed and constructed primarily to prevent damage to existing development and minimize adverse impacts to ecological functions.
3. New development requiring bulkheads and/or similar protection should not be allowed. Shoreline uses should be located in a manner so that bulkheads and other structural stabilization are not likely to become necessary in the future.
4. Shoreline modifications individually and cumulatively shall not result in a net loss of ecological functions. This is to be achieved by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions and requiring mitigation of identified impacts resulting from shoreline modifications.

3. Over-Water Structures (Including Piers and Docks, Floats, Boardwalks and Boating Facilities)

b. Policies

1. Moorage associated with a single-family residence is considered a water-dependent use provided that it is designed and used as a facility to access watercraft.
2. New moorage, excluding docks accessory to single family residences, should be permitted only when the applicant/proponent has demonstrated that a specific need exists to support the intended water-dependent or public access use.
3. To minimize continued proliferation of individual private moorage, reduce the amount of over-water and in-water structures and reduce potential long-term impacts associated with those structures, shared moorage facilities are preferred over single-user moorage. New subdivisions of more than two lots and new multifamily development of more than two dwelling units should provide shared moorage.
4. Docks, piers and other water-dependent use developments including those accessory to single family residences, should be sited and designed to avoid adversely impacting shoreline ecological functions or processes, and should mitigate for any unavoidable impacts to ecological functions.
5. Moorage and other water-dependent use developments should be spaced and oriented in a manner that minimizes hazards and obstructions to public navigation rights and corollary rights thereto such as, but not limited to, fishing, swimming and pleasure boating.
6. Moorage and other water-dependent use developments should be restricted to the minimum size necessary to meet the needs of the proposed use. The length, width and height of over-water structures and other developments regulated by this section should be no greater than that required for safety and practicality for the primary use.
7. Moorage and other water-dependent use developments should be constructed of materials that will not adversely affect water quality or aquatic plants and animals in the long term.

4.Fill

b. Policies

1. Fills waterward of OHWM should be allowed only when necessary to support allowed water-dependent or public access uses, cleanup and disposal of contaminated sediments and other water-dependent uses that are consistent with this SMP.
2. Shoreline fill should be designed and located so there will be no significant ecological impacts and no alteration of local currents, surface water drainage, channel migration or flood waters that would result in a hazard to adjacent life, property and natural resource systems.

5.Dredging and Disposal

b. Policies

1. Dredging operations should be planned and conducted to minimize interference with navigation and adverse impacts to other shoreline uses, properties and values.
2. When allowed, dredging and dredge material disposal should be limited to the minimum amount necessary.
3. Disposal of dredge material within a channel migration zone shall be discouraged. (Refer to the Channel Migration Zone Map, Figure No. 10.2 in the Inventory and Analysis Report).

6.Shoreline Restoration and Ecological Enhancement

b. Policies

1. The City should consider shoreline enhancement as an alternative to structural shoreline stabilization and protection measures where feasible.
2. All shoreline enhancement projects should protect the integrity of adjacent natural resources including aquatic habitats and water quality.
3. Where possible, shoreline restoration should use maintenance-free or low-maintenance designs.
4. The City should pursue the recommendations in the shoreline restoration plan prepared as part of this SMP update. The City should give priority to projects consistent with this plan.
5. Shoreline restoration and enhancement should not extend waterward more than necessary to achieve the intended results.

7.Dikes and Levees

b. Policies

1. Dikes and levees should be constructed or reconstructed only as part of a comprehensive flood hazard reduction program
2. Environmental enhancement measures should be a part of levee improvements.

SHORELINE USE POLICIES

The provisions in this section apply to specific common uses and types of development to the extent they occur within shoreline jurisdiction. Policies related to each shoreline use are found below. The policies are numbered exactly as they are found in the SMP.

1. General Policies

b. Policies

1. The City should give preference to those uses that are consistent with the control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon uses of the state's shoreline areas.
2. The City should ensure that all proposed shoreline development will not diminish the public's health, safety and welfare, as well as the land or its vegetation and wildlife, and should endeavor to protect property rights while implementing the policies of the Shoreline Management Act.
3. The City should reduce use conflicts by prohibiting or applying special conditions to those uses which are not consistent with the control of pollution and prevention of damage to the natural environment or are not unique to or dependent upon use of the state's shoreline. In implementing this provision, preference should be given first to water-dependent uses, then to water-related uses and water-enjoyment uses.
4. The City should encourage the full use of existing urban areas before expansion of intensive development is allowed.

2. Agriculture

b. Policies

1. The creation of new agricultural lands by diking, draining or filling marshes, channel migration zones, and associated marshes, bogs and swamps should be prohibited.
2. A vegetative buffer should be maintained between agricultural lands and water bodies or wetlands in order to reduce harmful bank erosion and resulting sedimentation, enhance water quality, reduce flood hazard and maintain habitat for fish and wildlife.
3. Animal feeding operations, retention and storage ponds and feedlot waste and manure storage should be located out of shoreline jurisdiction and constructed to prevent contamination of water bodies and degradation of the adjacent shoreline environment.
4. Appropriate farm management techniques should be utilized to prevent contamination of nearby water bodies and adverse effects on valuable plant, fish and animal life from fertilizer and pesticide use and application.
5. Where ecological functions have been degraded, new development should be conditioned with the requirement for ecological restoration to ensure no net loss of ecological functions.

The City's Shoreline Administrator will consult the provisions of this SMP and determine the applicability and extent of ecological restoration. The extent of ecological restoration shall be that which is reasonable given the specific circumstances of an agricultural development.

3. Boating Facilities

b. Policies

1. Boating facilities should be located, designed and operated to provide maximum feasible protection and restoration of ecological processes and functions and all forms of aquatic, littoral or terrestrial life—including animals, fish, shellfish, birds and plants—and their habitats and migratory routes. To the extent possible, boating facilities should be located in areas of low biological productivity.
2. Boating facilities should be located and designed so their structures and operations will be aesthetically compatible with the area visually affected and will not unreasonably impair shoreline views. However, the need to protect and restore ecological functions and to provide for water-dependent uses carries higher priority than protection of views.
3. Boat launch facilities should be provided at appropriate public access sites.
4. Existing public moorage and launching facilities should be maintained.

4. Commercial Development

b. Policies

1. Multi-use commercial projects that include some combination of ecological restoration, public access, open space and recreation should be encouraged in the High-Intensity Environment consistent with the City's Comprehensive Plan.
2. Where possible, commercial developments are encouraged to incorporate Low Impact Development techniques into new and existing projects.

5. Industry

b. Policies

1. Ecological restoration should be a condition of all nonwater-oriented industrial development.
2. Where possible, industrial developments are encouraged to incorporate Low Impact Development techniques into new and existing projects.

6. In-Stream Structures

b. Policies

1. In-stream structures should provide for the protection, preservation and restoration 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, hydrogeological processes and natural scenic vistas. Within the City of Kent, in-stream structures should be allowed only for the purposes of environmental restoration or water quality treatment.

7. Recreational Development

b. Policies

1. The coordination of local, state and federal recreation planning should be encouraged to satisfy recreational needs. Shoreline recreational developments should be consistent with all adopted park, recreation and open space plans.
2. Recreational developments and plans should promote the conservation of the shoreline's natural character, ecological functions and processes.
3. A variety of compatible recreational experiences and activities should be encouraged to satisfy diverse recreational needs.
4. Water-dependent recreational uses, such as angling, boating and swimming, should have priority over water-enjoyment uses, such as picnicking and golf. Water-enjoyment uses should have priority over nonwater-oriented recreational uses, such as field sports.
5. Recreation facilities should be integrated and linked with linear systems, such as hiking paths, bicycle paths, easements and scenic drives.
6. Where appropriate, non-intensive recreational uses may be permitted in floodplain areas. Non-intensive recreational uses include those that do not do any of the following:
 - a. Adversely affect the natural hydrology of aquatic systems.
 - b. Create any flood hazards.
 - c. Damage the shoreline environment through modifications such as structural shoreline stabilization or vegetation removal.
7. Opportunities to expand the public's ability to enjoy the shoreline in public parks through dining or other water enjoyment activities should be pursued.

8. Residential Development

b. Policies

1. Residential development should be prohibited in environmentally sensitive areas including, but not limited to, wetlands, steep slopes, floodways and buffers.
2. The overall density of development, lot coverage and height of structures should be appropriate to the physical capabilities of the site and consistent with the comprehensive plan.
3. Recognizing the single-purpose, irreversible and space consumptive nature of shoreline residential development, new development should provide adequate setbacks or open space from the water to provide space for community use of the shoreline and the water, to provide space for outdoor recreation, to protect or restore ecological functions and ecosystem-wide processes, to preserve views, to preserve shoreline aesthetic characteristics, to protect the privacy of nearby residences and to minimize use conflicts.
4. Adequate provisions should be made for protection of groundwater supplies, erosion control, stormwater drainage systems, aquatic and wildlife habitat, ecosystem-wide processes and open space.
5. Sewage disposal facilities, as well as water supply facilities, shall be provided in accordance with appropriate state and local health regulations.
6. New residences should be designed and located so that shoreline armoring will not be necessary to protect the structure. The creation of new residential lots should not be allowed unless it is demonstrated the lots can be developed without:
 - a. Constructing shoreline stabilization structures (such as bulkheads).
 - b. Causing significant erosion or slope instability.
 - c. Removing existing native vegetation within 20 feet of the shoreline.

9. Transportation

b. Policies

1. Circulation system planning on shorelands should include systems for pedestrian, bicycle and public transportation where appropriate. Circulation planning and projects should support existing and proposed shoreline uses that are consistent with the SMP.
2. Trail and bicycle paths should be encouraged along shorelines and should be constructed in a manner compatible with the natural character, resources and ecology of the shoreline.
3. When existing transportation corridors are abandoned, they should be reused for water-dependent use or public access.

10. Utilities

b. Policies

1. New utility facilities should be located so as not to require extensive shoreline protection works.
2. Utility facilities and corridors should be located so as to protect scenic views, such as views of the Green River from the Green River Trail. Whenever possible, such facilities should be placed underground, or alongside or under bridges.
3. Utility facilities and rights-of-way should be designed to preserve the natural landscape and to minimize conflicts with present and planned land uses.

SHORELINE RESTORATION

Activities that have adverse effects on the ecological functions and values of the shoreline must provide mitigation for those impacts. By law, the proponent of that activity is not required to return the subject shoreline to a condition that is better than the baseline level at the time the activity takes place. How then can the shoreline be improved over time in areas where the baseline condition is severely, or even marginally, degraded?

Section 173-26-201(2)(f) WAC of the Shoreline Master Program Guidelines says: “master programs shall include goals and policies that provide for restoration of such impaired ecological functions. These master program provisions shall identify existing policies and programs that contribute to planned restoration goals and identify any additional policies and programs that local government will implement to achieve its goals. These master program elements regarding restoration should make real and meaningful use of established or funded non-regulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or non-regulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards.”

In total, implementation of the Shoreline Master Program (with mitigation of project-related impacts) in combination with this Restoration Plan (for restoration of lost ecological functions that occurred prior to a specific project) should result in a net improvement in the City of Kent’s shoreline environment in the long term.

RESTORATION GOALS AND OBJECTIVES

According to the *Green/Duwamish and Central Puget Sound Watershed (WRIA 9) Near-Term Action Agenda For Salmon Habitat Conservation*, the Green/Duwamish watershed suffers from detrimental conditions for fish and fish habitat due to major engineering changes, land use changes which have resulted in direct and indirect impacts to salmon habitat, and water quality which has declined due to wastewater and industrial discharges, erosion, failing septic systems and the use of pesticides (WRIA 9 Steering Committee 2002). The June 30, 2009, *City of Kent Final Shoreline Inventory and Analysis Report* provides supporting information that validates these claims specifically in the City’s shoreline jurisdiction. The *WRIA 9 Near Term Action Agenda* established three high priority watershed goals for salmon conservation and recovery:

- “Protect currently functioning habitat primarily in the Middle Green River watershed and the nearshore areas of Vashon/Maury Island.
- Ensure adequate juvenile salmon survival in the Lower Green River, Elliot Bay/Duwamish, and Nearshore subwatersheds. Meeting this goal involves several types of actions, including protecting currently functioning habitat, restoring degraded habitat, and maintaining or restoring adequate water quality and flows.
- Restore access for salmon (efficient and safe passage for adults and juveniles) to and from the Upper Green River subwatershed.”

The following recommended policy for the lower Green River subwatershed, including Kent, is also taken from the *Salmon Habitat Plan: Making our Watershed Fit for a King* (Steering Committee 2005).

- In the Lower Green River, every opportunity should be taken to set back levees and revetments to the maximum extent practicable. Habitat rehabilitation within the Lower Green River corridor should be included in all new developments and re-developments that occur within 200 feet of the river.

The WRIA 9 restoration goals, in combination with the results of the *City’s Final Shoreline Inventory and Analysis Report*, the direction of *Ecology’s Shoreline Master Program Guidelines*, and the City’s commitment to support the *Salmon Habitat Plan: Making our Watershed Fit for a King*, are the foundation for the following goals and objectives of the City of Kent’s restoration strategy. Although the *Green/Duwamish and Central Puget Sound Watershed (WRIA 9) Near-Term Action Agenda For Salmon Habitat Conservation* and the *Salmon Habitat Plan: Making our Watershed Fit for a King* are salmon-centered, pursuit of improved performance in ecosystem-wide processes and ecological functions that favors salmon generally captures those processes and functions that benefit all fish and wildlife.

Goal 1: Maintain, restore or enhance watershed processes, including sediment, water, wood, light and nutrient delivery, movement and loss.

Goal 2: Maintain or enhance fish and wildlife habitat during all life stages and maintain functional corridors linking these habitats.

Goal 3: Contribute to conservation and recovery of Chinook salmon and other anadromous fish, focusing on preserving, protecting and restoring habitat with the intent to recover listed species, including sustainable, genetically diverse, harvestable populations of naturally spawning Chinook salmon.

1. System-Wide Restoration Objectives

- a. Improve the health of shoreline waterbodies by managing the quality and quantity of stormwater runoff, consistent at a minimum with the latest Washington Department of Ecology Stormwater Management Manual for Western Washington. Make additional efforts to meet and maintain state and county water quality standards in contributing systems.
- b. Increase quality, width and diversity of native vegetation in protected corridors and shorelines adjacent to stream and lake habitats to provide safe migration pathways for fish and wildlife, food, nest sites, shade, perches and organic debris. Strive to control non-indigenous plants or weeds that are proven harmful to native vegetation or habitats.
- c. Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 9 to implement the *Salmon Habitat Plan: Making our Watershed Fit for a King*.
- d. Base local actions and future projects, ordinances and other appropriate local government activities on the best available science presented in the WRIA 9 scientific foundation and habitat management strategy.
- e. Use the comprehensive list of actions, and other actions consistent with the Plan, as a source of potential site-specific projects and land use and public outreach recommendations.
- f. Use the start-list to guide priorities for regional funding in the first ten years of Plan implementation, and to implement start-list actions through local capital improvement projects, ordinances and other activities.
- g. Seek federal, state, grant and other funding opportunities for various restoration actions and programs independently or with other WRIA 9 jurisdictions and stakeholders.
- h. Develop a public education plan to inform private property owners in the shoreline area and in the remainder of the City about the effects of land management practices and other unregulated activities (such as vegetation removal, pesticide/herbicide use, car washing) on fish and wildlife habitats.
- i. Develop a chemical reduction plan which focuses on reducing the application of fertilizers, herbicides and pesticides near shoreline waterbodies or tributary streams and otherwise emphasizes only their localized use.
- j. Where feasible, protect, enhance and restore riparian areas surrounding wetlands where functions have been lost or compromised.

2. Green River Restoration Objectives

- a. Improve the health of the Green River and its tributary streams by identifying hardened and eroding streambanks and correcting to the extent feasible with bioengineered stabilization solutions.
- b. Improve the health of the Green River by removing or setting back flood and erosion control facilities whenever feasible to improve natural shoreline processes. Where levees and revetments cannot be practically removed or set back due to infrastructure considerations, maintain and repair them using design approaches that maximize the use of native vegetation and large woody debris (LWD).

- c. Improve the health of the Green River and its tributary streams by increasing LWD recruitment potential through plantings of trees, particularly conifers, in the riparian corridors. Where feasible, install LWD to meet short-term needs.
- d. Improve the health of the Green River by reestablishing and protecting side channel habitat.
- e. Where feasible, re-establish fish passage to Green River tributary streams.

3. Lakeshore Restoration Objectives

- a. Decrease the amount and impact of overwater and in-water structures through minimization of structure size and use of innovative materials.
- b. Participate in lake-wide efforts to reduce populations of non-native aquatic vegetation.
- c. Where feasible, improve the health of lake shorelines by removing bulkheads and utilizing bioengineering or other soft shoreline stabilization techniques to improve aquatic conditions.

RESTORATION PRIORITIES

The process of prioritizing actions that are geared toward restoration of the City's shoreline areas involves balancing ecological goals with a variety of site-specific constraints. Briefly restated, the City's environmental protection and restoration goals include 1) protecting watershed processes, 2) protecting fish and wildlife habitat and 3) contributing to Chinook conservation efforts. Constraints that are specific to Kent include a heavily confined and leveed Green River shoreline area, a highly developed shoreline along Lake Meridian with predominantly private ownership and heavy commercial development along Springbrook Creek. While other areas may already offer fairly good ecological functions (Big Soos Creek, Lake Fenwick, Jenkins Creek and the GRNRA), they tend to include opportunities to further enhance ecological functions. These goals and constraints were used to develop a hierarchy of restoration actions to rank different types of projects or programs associated with shoreline restoration. Programmatic actions, like continuing WRIA 9 involvement and conducting outreach programs to local residents, tend to receive relatively high priority opposed to restoration actions involving private landowners. Other factors that influenced the hierarchy are based on scientific recommendations specific to WRIA 9, potential funding sources and the projected level of public benefit.

Although restoration project/program scheduling is summarized in the previous section (Table 14), the actual order of implementation may not always correspond with the priority level assigned to that project/program. This discrepancy is caused by a variety of obstacles that interfere with efforts to implement projects in the exact order of their perceived priority. Some projects, such as those associated with riparian planting, are relatively inexpensive and easy to permit and should be implemented over the short and intermediate term despite the perception of lower priority than projects involving extensive shoreline restoration or large-scale capital improvement projects. Straightforward projects with available funding should be initiated immediately for the worthwhile benefits they provide and to preserve a sense of momentum while permitting, design, site access authorization and funding for the larger, more complicated and more expensive projects are underway.

1. Priority 1: Levee Modifications and Floodplain Reconnection

Because of the isolation of the Green River floodplain from the Green River by the levee, floodplain habitats, including off-channel and side channel habitats, are typically described as the most diminished types of salmonid fish habitat relative to the pristine condition. The lack of these habitat types is a limiting factor for Chinook salmon recovery. As discussed above, the historic use and prevalence of levees has greatly diminished the habitat value of extended floodplains. Restoration of these areas has been found to be one of the most beneficial of all types of stream and river enhancements. Projects in this category include the WRIA 9 recommended projects listed in Table 11 in Chapter 8 of the SMP:

- Project(s) LG-7 - Lower Mill Creek, Riverview (Formerly Green River) Park, Hawley Road Levee, Lower Mullen Slough, and Lower Mill Creek Restoration Between RM 21.3 and 24 (Both Banks)
- Project LG-9 - Rosso Nursery Off-Channel Rehabilitation and Riparian Restoration Between RM 20.8 and 20 (Left Bank) [being implemented by City as "Lower Green River Property Acquisition" in nearby locations]
- Project LG-10 - Mainstem Maintenance (including the Boeing Levee Setback and Habitat Rehabilitation) Between RM 20.5 and 16.3
- Project LG-13 - Acquisition, Levee Setback and Habitat Rehabilitation Between RM 15.3 and 14.7 (Right Bank)

2. Priority 2: Continue Water Resource Inventory Area (WRIA) 9 Participation

Of basic importance is the continuation of ongoing, programmatic, basin-wide programs and initiatives such as the WRIA 9 Forum. Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 9 to implement the *2005 Salmon Habitat Plan: Making our Watershed Fit for a King* (Habitat Plan). This process provides an opportunity for the City to keep in touch with its role on a basin-wide scale and to influence habitat conditions beyond its borders, which, in turn, come back to influence water quality and quantity and habitat issues within the City.

3. Priority 3: Improve Water Quality and Reduce Sediment and Pollutant Delivery

Although most of the streams and their basins located within the City are outside of shoreline jurisdiction, their impacts to shoreline areas should not be discounted. Many of these streams have the potential to provide fish and wildlife habitat. They are also a common receiving body for non-point source pollution, which in turn delivers those contaminants to shoreline waterbodies.

Watershed-wide programmatic actions listed in the Habitat Plan include four actions focused on addressing water quality and stormwater controls:

- Program WW-11: Expand/Improve incentives Programs
- Program WW-12: Improve Enforcement of Existing Land Use and Other Regulations
- Program WW-13: Increase Use of Low Impact Development and Porous Concrete
- Program WW-14: Provide Incentives for Developers to Follow Built Green™ Checklist Sections Benefiting Salmon

These recommendations emphasize the use of low impact development techniques, on-site stormwater detention for new and redeveloped projects and control of point sources that discharge directly into surface waters. They involve protecting and restoring forest cover, riparian buffers, wetlands and creek mouths by revising and enforcing Critical Areas Regulations and Shoreline Master Programs, incentives and flexible development tools.

4. Priority 4: Reconnect Fish Passage to Green River Tributaries

Expanding available fish habitat and rearing opportunities for anadromous fish is a high priority for the City. One of the key mechanisms is to improve fish passage by reconnecting mainstem river habitat to local tributaries.

The City is currently involved with improving fish habitat within the outlet from Lake Meridian (Lake Meridian Outlet Realignment Project). This project involves realigning the lake outflow of Lake Meridian, otherwise known as Cow Creek, through a forested area to improve fish habitat on its way to Big Soos Creek. This project currently is funded through Phase 2 of 3, with Phase 2 expected to begin in 2009.

Recommended projects from the Habitat Plan include:

- Project(s) LG-7 - Lower Mill Creek, Riverview (Formerly Green River) Park, Hawley Road Levee, Lower Mullen Slough and Lower Mill Creek Restoration Between RM 21.3 and 24 (Both Banks)

5. Priority 5: Public Education and Involvement

Public education and involvement has a high priority in the City. While this is especially important for areas directly affected by residential development (i.e. Lake Meridian) or floodplain and levee management (i.e. Green River), it has already resulted in vast improvements to the GRNRA and Green River projects. Opportunities for restoration outside of residential property are extensive along most shoreline areas in the City. Only Lake Meridian is highly impacted by residential development. Therefore, in order to achieve the goals and objectives set forth in this Chapter 8, "Restoration Plan," most of the restoration projects (except for those on Lake Meridian) would likely occur on public property. Thus, providing education opportunities and involving the public is key to success, and would possibly entail coordinating the development of a long-term Public Education and Outreach Plan to gain public support.

6. Priority 6: Acquisition of Shoreline Property for Preservation, Restoration, or Enhancement Purposes

The City should explore opportunities to protect natural areas or other areas with high ecological value via property acquisition. Mechanisms to purchase property would likely include collaboration with other stakeholder groups including representatives from local government, businesses and the general public in order to develop a prioritized list of actions. Such a coordinated effort is listed as a watershed-wide programmatic action in the Habitat Plan:

- Program WW-15: Develop a Coordinated Acquisition Program for Natural Areas

The Habitat Plan also includes the following specific acquisition project:

- Project LG-13 - Acquisition, Levee Setback and Habitat Rehabilitation Between RM 15.3 and 14.7 (Right Bank)

7. Priority 7: Improve Riparian Vegetation, Reduce Impervious Coverage

Similar to Priority 3, Section G.3 above, to improve water quality and reduce sediment and pollutant delivery, improved riparian vegetation and reduction in impervious surfaces are emphasized throughout the Habitat Plan. All of the specific projects listed in Table 11 (LG No. 3, 4, 7, 9, 10, and 13) include some form of protecting and improving riparian vegetation. Watershed-wide programmatic actions also described in the Habitat Plan include many references to improving vegetative conditions and reducing impervious surface coverage. Specific reference to planting vegetation is listed in Program WW-5: Promote the Planting of Native Trees.

In addition to the items listed in the Habitat Plan, Section E.2 above lists many areas where improvements to riparian vegetative cover and reductions in impervious surfaces are warranted.

8. Priority 8: Reduce Shoreline and Bank Armoring, Create or Enhance Natural Shoreline and Streambank Conditions

The preponderance of shoreline armoring and its association with impaired habitat conditions, specifically for juvenile Chinook salmon, has been identified as one of the key limiting factors along the Green River (Kerwin and Nelson 2000). While it is recognized that levees and revetments cannot practically be removed in all circumstances, considerations should be made to maintain and repair them using design approaches that incorporate native vegetation and large woody debris. Improvements to levees and revetments are discussed in Priority 1, Section G.1 above.

It is also recognized that reduction in shoreline armoring along lakes is also important (i.e. Lake Meridian and Lake Fenwick). While no specific lake project sites have been identified under this restoration priority, emphasis should be given to future project proposals that involve or have the potential to restore shoreline areas to more natural conditions. The City should explore ways in which to team with local property owners, whether through financial assistance, permit expedition or guidance, to restore multiple contiguous lots.

9. Priority 9: Reduction of In-water and Over-water Structures

Reduction of in- and over-water cover by piers, docks and other boat-related structures is one mechanism to improve shoreline ecological functions. While not necessarily prevalent along the Green River, piers and docks are extensive along Lake Meridian with nearly 90 percent of all parcels having a pier or dock. The Washington Department of Fish and Wildlife already regulates the size and materials for in- and over-water structures throughout the State and generally recommends finding ways to reduce both the size and density of these structures. Although no specific project sites to reduce in-water and over-water structures within residential areas are identified here, future project proposals involving reductions in the size and/or quantity of such structures should be emphasized. Such future projects may involve joint-use pier proposals or pier reconstruction and may be provided with an expedited permit process.

10. Priority 10: Reduce Aquatic Invasive Weeds in Lakes

While not specifically listed in the Habitat Plan, reduction of aquatic invasive weeds from the City's lakes is emphasized in Section E.2. All three lakes (Lake Fenwick, Lake Meridian and Panther Lake) have experienced growth of non-native and often invasive aquatic vegetation. Problem species include Eurasian watermilfoil, Brazilian elodea and water lily. Future mechanisms to control weed growth range from possible substrate blankets (Lake Meridian) to introduction of grass carp (Lake Fenwick). Not only are aquatic weeds a problem for boats and swimmers, but they also tend to reduce dissolved oxygen to lethal levels for fish, hampering foraging opportunities.

11. Priority 11: City Zoning, Regulatory, and Planning Policies

City policies and development regulations are listed as being of lower priority in this case simply because they have been the subject of a thorough review and have recently been updated accordingly. Notably, the City's Critical Areas Ordinance was recently updated (August 2006) consistent with the Best Available Science for critical areas, including those within the shoreline area.

The City received its final National Pollutant Discharge Elimination System (NPDES) Phase II permit in January 2007 from Department of Ecology. The NPDES Phase II permit is required to include the City's stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.

Watershed-wide programmatic actions listed in the Habitat Plan include three actions focused on regulatory mechanisms to restore ecological functions:

- Program WW-11: Expand/Improve Incentives Programs
- Program WW-12: Improve Enforcement of Existing Land Use and Other Regulations
- Program WW-14: Provide Incentives for Developers to Follow Built Green™ Checklist Sections Benefiting Salmon