

SEPA ENVIRONMENTAL CHECKLIST

A. Background

1. Name of proposed project, if applicable:

City of Shoreline Shoreline Master Program Periodic Review

2. Name of applicant:

City of Shoreline (City)

3. Address and phone number of applicant and contact person:

Contact:

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Shoreline, WA 98133
(206) 801-2513

4. Date checklist prepared:

March 1, 2019

5. Agency requesting checklist:

City of Shoreline

6. Proposed timing or schedule (including phasing, if applicable):

The City's Planning Commission will review the Shoreline Master Program (SMP) revisions on April 4, 2019 during a public hearing. This public hearing will fulfill the Department of Ecology's requirements for a joint review and comment period. The City Council is scheduled to discuss the SMP at a Study Session on May 6, 2019 and adopt the Final SMP by Ordinance No. 856 on June 3, 2019.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Periodic review of the City's Shoreline Master Program is required every eight years in accordance with RCW 90.58.080.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

City of Shoreline SMP Periodic Review Checklist (see Attachment A)

City of Shoreline SMP Cumulative Impacts Analysis Addendum (see Attachment B)

City of Shoreline Critical Areas Regulations (Attachment C)

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No pending applications or governmental approvals within the city limits would be affected by the SMP periodic review amendments. A project proponent for an area commonly referred to as Point Wells, lying just north of city limits, has submitted applications to Snohomish County to redevelop the industrial use of the site into a mixed-use residential and commercial development. The area is part of the City's Future Service Annexation Area. The proposed SMP amendments would apply to any new use or development within the City's shoreline jurisdiction once adopted by the City and approved by the Department of Ecology, and within the Future Service Annexation Area upon annexation.

10. List any government approvals or permits that will be needed for your proposal, if known.

The proposed SMP will need the following approvals:

- State Environmental Policy Act (SEPA) review and threshold determination for non-project actions;
- City Council adoption; and
- Washington State Department of Ecology approval (RCW 90.58.090).

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

In 2003, the Shoreline Management Act (SMA), chapter 90.58 RCW, was amended to require cities to regularly update their SMP. For the City of Shoreline, RCW 90.58.080(2) requires the City to review and update its SMP on or before June 30, 2019, and then once every eight years after the date of approval by the Department of Ecology, the regulatory body in charge of overseeing the periodic review.

The purpose of the statutorily-mandated periodic review is to assure that the City's SMP complies with the SMA and its implementing guidelines, WAC 173-26 to 173-27, and to assure consistency of the SMP with the City of Shoreline's comprehensive plan and development regulations adopted under the Growth Management Act (GMA), chapter 36.70A RCW, and other local requirements. Proposed changes to the City's SMP fall primarily into two categories:

those required by the Department of Ecology to incorporate changes in state guidance since the SMP was adopted in 2013, and those recommended by the City, primarily to integrate a Critical Areas Ordinance which was adopted in 2015 into the SMP.

The Department of Ecology developed a SMP Periodic Review Checklist for jurisdictions conducting their periodic review that provides guidance on amendments to state law, rules, and applicable guidance adopted between 2007 and 2017. The reviewed and completed City of Shoreline periodic review checklist is included as Attachment A to this SEPA checklist.

RCW 90.58.090(4) and RCW 36.70A.480(3) requires SMPs to provide for management of designated critical areas located within shorelines of the state. The 2013 SMP incorporates by reference the 2006 critical areas regulations adopted by Ordinance No. 398. In 2015, via Ordinance No. 723, the City did an extensive update to its critical areas regulations. Incorporation of the 2015 regulations into the City's SMP requires review and approval by the Department of Ecology which the City did not seek in 2015 due to time constraints. Therefore, the 2006 regulations have remained applicable within the shoreline jurisdiction to date. This has made pertinent regulations difficult to locate and results in an inconsistency to protecting critical areas within the city.

The updated SMP will:

- Incorporate the 2015 Critical Areas Ordinance (CAO) by embedding it within the SMP;
- Codify rather than adopt the CAO by reference;
- Make the pertinent CAO regulations easier to locate in the code, rather than as an attachment to the SMP; and
- Provide the ability to amend CAO language as necessary to fit the shoreline jurisdiction, which will increase clarity and fill gaps.

The SMP code revisions identified in the Periodic Review Checklist and incorporated 2015 CAO code revisions are included as Attachment C to this SEPA checklist.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The SMP periodic review is a non-project action that affects activities, uses, and developments within shoreline jurisdiction. Shoreline jurisdiction within the city of Shoreline is along the shores of Puget Sound and on the adjacent shorelands or uplands within 200 feet of the shoreline edge (ordinary high water mark), including associated wetlands. The shoreline area is along the western edge of the city and runs from the Seattle city limits to the Snohomish County border. The City's SMP also includes policies and regulations that would affect the Point Wells area (in unincorporated Snohomish County as part of the city's Potential Future Service Annexation Area if this area were to be annexed into the city at a later date).

B. Environmental Elements

1. Earth

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

The city's shoreline is characterized by steep bluffs, low-lying areas, a coastal beach, and stream mouths. The City of Shoreline beaches are typical of Puget Sound and can be characterized by two distinct foreshore components: a high-tide beach and a low-tide terrace (Downing, 1983). The high-tide beach consists of a relatively steep beachface with coarse sediment and an abrupt break in slope at its waterward extent. Extending seaward from the break in slope, the low-tide terrace typically consists of a gently sloping accumulation of poorly sorted fine-grained sediment (Komar, 1976). In the city, coastal bluffs are separated from the Puget Sound by the BNSF railroad. In Snohomish County, the Point Wells area is a generally flat area waterward of the BNSF railroad tracks (Snohomish County PDS Map, 2019).

b. What is the steepest slope on the site (approximate percent slope)?

The city's shoreline area has terrain characterized by both low bank and steep bluffs that occur throughout most of the shoreline jurisdiction. The steepest slopes can be as much as 50% (King County iMap, 2019). Vertical bulkheads can be found on residential properties in the Apple Tree Lane community.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The Geotechnical Assessment Report prepared for the Sound Transit Everett to Seattle Commuter Rail Project (HWA GeoSciences, Inc., 1998) describes the typical soils and slope profile found along the waterfront from Everett to Seattle. In general, the area is dominated by Pleistocene aged glacial soils associated with the Vashon Drift and consisting of recessional outwash deposits, glacial till, advance outwash and glacial lacustrine. Recent soil deposits include beach and colluvial deposits, some of which are associated with landslides. Where major landscape modifications have occurred, such as Point Wells, fill soils are typically present (HWA GeoSciences, Inc., 1998).

The waterfront bluffs found along the city's shoreline (Figure 1; Segments B through E) are typically composed of a cap of very dense gravelly sand with scattered cobbles and boulders in a clay/silt matrix (glacial till), overlaying dense sand and gravel (glacial advance outwash), which overlies hard clay (glacial lacustrine). The thicknesses of these layers can vary substantially. However, the till cap is generally at the top of the bluffs, sometimes overlain by deposits of medium dense sand and gravel (glacial recessional outwash). The hard clays are typically at or near sea level. Streams draining the uplands dissect bluffs and flow into Puget Sound, depositing fine sand and silt in alluvial fans. Littoral drift, which is the accumulation or movement

of foreshore sediments along the shore by littoral currents and oblique waves, reworks some of this material and becomes beach deposits (HWA GeoSciences, Inc., 1998).

Soils at Richmond Beach Saltwater Park (Figure 1; Segment C) are characterized by loamy-sand texture and loose granular structure with little to no organic material. The soil is similar to an Indianola soil series (Scillitani et al., 2017).

Soils at Point Wells (Figure 1; Segment A) are mapped as urban land. A Woodway landslide occurred about 1 mile north of Point Wells in the winter of 1996/1997. The landslide debris uncovered advance outwash and Lawton Clay units (ICF, 2009).

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

The west-facing slopes along Puget Sound within the city have experienced relatively recent and historical landslide activity (HWA GeoSciences, Inc. 1998; Baum et al., 2000). In general, slope stability in the city's shoreline planning area is more stable in the northern portion (Figure 1; Segments A -D), though containing some isolated unstable areas, and unstable in the southern portion (Figure 1; Segment E).

Baum et al. (2000) conducted an inventory of recent landslides that included the shoreline between Everett and Seattle. Significant storm events during the winters of 1996-1997 and 2005-2006 resulted in several major landslide episodes (Baum et al., 2000; Godt et al., 2009). The most common types of landslides were shallow earth slides and debris flows, some of which blocked culverts and overtopped the BNSF railroad track. The largest one in the city occurred in Segment E north of Highlands Creek (Baum et al. 2000). The seawall and stone revetments of the BNSF railroad protect the base of the bluff from wave erosion and have probably increased the stability of the bluff. Baum et al. (2000) suggests that the bluff retreat during the winters of 1995-96 and 1996-97 might have been greater had the seawall and embankment not been present.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

No specific filling or grading is proposed. Under the SMP, clearing and grading activities within shoreline jurisdiction are permitted only as part of an allowed shoreline development, a public access improvement, or an ecological restoration or enhancement project [Shoreline Municipal Code (SMC) 20.230.080, Table 20.230.081]. Landfilling waterward of the ordinary high water mark (OHWM) is conditionally permitted for activities associated with shoreline/aquatic restoration remediation.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion hazard areas occur when lands on slopes of 15% or greater are underlain by soils such as Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD) (City of Shoreline, 2019). There is potential for erosion to occur along

the city's shoreline especially as a result of clearing, construction, or other use. The SMP includes provisions to limit clearing, retain existing native shoreline vegetation, manage stormwater, and provide erosion and sediment control (SMC 20.230.200.B and SMC 20.230.210.B).

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

This is a non-project action with no specific construction resulting in new impervious surface.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

The SMP includes provisions to limit clearing, retain existing native shoreline vegetation, manage stormwater, and provide erosion and sediment control (SMC 20.230.200.B and SMC 20.230.210.B). The SMP regulations along with other City of Shoreline regulations provide specific criteria to prevent and mitigate these impacts at the project level. These provisions are implemented on a project-by project basis.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

None

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

In addition to the Puget Sound shoreline, the following streams discharge into Puget Sound in the shoreline jurisdiction: Boeing Creek is partially piped from its origin and discharges into Puget Sound, passing through the city's shoreline planning area. Other creeks include: Highlands Creek, Blue Heron Creek (also known as Innis Arden North Creek), Coyote Creek (also known as Innis Arden South Creek), Storm Creek, Upper Barnacle Creek (also known as Upper Puget Sound North) and Lower Barnacle Creek (also known as South Barnacle Creek), and Lost Creek. All the creeks originate from wetlands, urban runoff or hillside seeps, except that the headwaters of Upper and Lower Barnacle Creeks and Lost Creek are located to the north in Snohomish County. There are no freshwater lakes in the shoreline jurisdiction.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Not applicable. As a non-project action, adoption of the SMP revisions would not require any in or overwater work. New development within shoreline jurisdiction would be subject to the provisions of the SMP, which includes specific standards for in and over-water structures (SMC 20.230.170).

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

Not applicable. As a non-project action, adoption of the SMP revisions would not require any fill or dredging to be placed in or removed from surface water or wetlands. New development within shoreline jurisdiction would be subject to the provisions of the SMP, which includes specific standards for dredging and filling (SMC 20.230.160 and SMC 20.230.210).

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

Not applicable. As a non-project action, adoption of the SMP revisions would not require any surface water withdrawals or diversions. New development within shoreline jurisdiction would be subject to the provisions of the SMP and *2018 Surface Water Master Plan*, which includes specific standards for water withdrawals and diversions.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

According to the King County Federal Emergency Management Agency (FEMA) flood insurance rate map (2005) for Shoreline and the Snohomish County Federal Emergency Management Agency (FEMA) flood insurance rate map for Point Wells, the 100 year floodplain is present at Boeing Creek and along the length of the city's shoreline and Point Wells. Properties along the Puget Sound may experience coastal flooding during a strong storm surge.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Not applicable. As a non-project action, no discharges of waste materials to surface waters are proposed. The City maintains a storm drainage system consisting of pipes, ponds, ditches, bioswales, and streams. The majority of the system eventually discharges into the Puget Sound via one of the city's streams, drainages or pipes consistent with the City's National Pollutant Discharge Elimination System (NPDES) Permit.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

Not applicable. As a non-project action, adoption of the SMP revisions would not require any groundwater withdrawals or discharges. New development within shoreline jurisdiction would be subject to the provisions of the SMP, *2018 Surface Water Management Plan*, surface water utility regulations (SMC 13.10), and the *Department of Ecology Stormwater Management Manual*, which includes specific standards for groundwater withdrawals.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Not applicable. As a non-project action, adoption of the SMP revisions would not require any discharges of waste material into the ground. Existing and proposed developments in the shoreline are required to be connected to the sanitary sewer system (SMC 20.230.140 – Residential Development). New, replaced, or expanded docks and piers should be constructed in accordance with Washington Department of Fish and Wildlife (WDFW) and U.S. Army Corps of Engineers Best Management Practices to avoid discharge of pollutants (SMC 20.230.170 – Piers and Docks).

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

As a non-project action, adoption of the SMP revisions will not result in new runoff. The SMP does not impact existing city-wide policies addressing the preservation and improvement of water quality. New development in the shoreline is required to comply with the provisions of the SMP, the City's development and surface water utility regulations, the City's *Surface Water Management Plan*, and the *Department of Ecology Stormwater Management Manual*.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.**

As a non-project action, adoption of the SMP revisions will not result in waste materials entering ground or surface waters. The SMP requires shoreline use and development control and treatment of stormwater to protect and maintain water quality and quantity in accordance with the City's stormwater regulations.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

As a non-project action, adoption of the SMP revisions will not affect drainage patterns. Provisions exist in the SMP to assure development, such as residences, bulkheads, and revetments, does not affect surface and subsurface drainage patterns.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

The SMP encourages management of stormwater throughout the city consistent with the *City of Shoreline 2018 Surface Water Master Plan* and stormwater management regulations (SMC Chapter 13.10). Low impact development techniques are encouraged where feasible.

4. Plants

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

As a non-project action, adoption of the SMP revisions will not result in the removal or alteration of vegetation. Standards in the SMP regulate maintenance and restoration of native vegetation where feasible.

c. List threatened and endangered species known to be on or near the site.

According to the Washington Natural Heritage Program, no threatened or endangered plant species are known to be on or near the shoreline (Washington Department of Natural Resources, 2019).

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

The SMP encourages the protection and restoration of native vegetation and control of non-native invasive plant species. The SMP includes a *Restoration Plan* describing opportunities to restore native vegetation within coastal habitats (ESA Adolfson, 2009).

e. List all noxious weeds and invasive species known to be on or near the site.

Invasive plant species are known to be present within Richmond Beach Saltwater Park and Point Wells site as stated in the City's *Shoreline Inventory and Characterization* (ESA Adolfson, 2008). Tansy ragwort and purple loosestrife, King County noxious weeds, are mapped on private property north of the Apple Tree Lane neighborhood (King County iMap, 2019).

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Birds: Northern goshawk, Cooper's hawk, bald eagle, great blue heron, belted kingfisher, songbirds, marbled murrelet, pileated woodpecker, band-tailed pigeon, purple martin, Barrow's goldeneye, bohemian waxwing, killdeer, black-bellied plover, dunlin, double-crested cormorant, red-necked grebe, Canada goose, mallard, long-tailed duck, northern pintail, bufflehead, mergansers, shoveler, scaup, loons, scoter, guilemot

Fish: Pacific sand lance, surf smelt, Pacific herring, longfin smelt, eulachon, Chinook, chum, coho, cutthroat, pink, sockeye

Shellfish: Dungeness crab, geoduck clam, littleneck clam, butter clam, horse clam, sand clam, purple shore crab pygmy rock crabs, red rock crab, graceful crab, black-clawed crab, California green shrimp, hairy hermit crab, cockle mussels, softshell mussel, bay mussel

Source: eBird, 2018; ESA Adolfson, 2008; Tetra Tech/KCM, 2004; WDFW PHS, 2019

b. List any threatened and endangered species known to be on or near the site.

The Water Resources Inventory Area (WRIA) 8 report identifies the known presence of salmon in local streams (WRIA 8 Steering Committee, 2005). Boeing Creek has documented salmonid use, including Chinook (listed as threatened under the Endangered Species Act) (Tetra Tech/KCM, 2004). Chinook and steelhead (federally-listed as threatened) are known or expected to be present along the city's Puget Sound shoreline based on the knowledge of species life histories (KCDNR, 2001).

Puget Sound is federally-designated critical habitat for endangered southern resident killer whale (NOAA, 2019).

Marbled murrelet (federal and state listed as threatened species) have also been documented in the shoreline vicinity (eBird, 2018; ESA Adolfson, 2008). No seabird colonies or waterfowl concentrations are documented within the city (WDFW PHS, 2019).

c. Is the site part of a migration route? If so, explain.

The City of Shoreline is located within the Pacific Flyway, which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends south from Alaska to Mexico and South America.

d. Proposed measures to preserve or enhance wildlife, if any:

The SMP provides mitigation and regulations to minimize the impact of development on the shoreline environment. The *Shoreline Master Program Update Restoration Plan* identifies and plans for ways to restore or enhance coastal shoreline functions and processes, including wildlife habitat, that have been impaired (ESA Adolfson, 2009).

e. List any invasive animal species known to be on or near the site.

European starlings have been observed along the shoreline (eBird, 2018).

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Not Applicable.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No. The SMP retains the maximum building height limits of the underlying zoning.

c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

Not applicable.

7. Environmental Health

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**

Not applicable. As a non-project action, adoption of the SMP revisions would not expose the public to any environmental health hazards.

1) Describe any known or possible contamination at the site from present or past uses.

The Point Wells property served as a petroleum product (gasoline and diesel fuel) marketing and distribution center for approximately 60 years or more (City of Shoreline, 1998). The petroleum distribution center discontinued operation in 1994. An asphalt plant was operated at the site on a seasonal basis by the Chevron Corporation (Sound Transit, 1999). The property was sold to Paramount of Washington in 2005 and is now used for petroleum products storage, processing, and distribution. Soil and groundwater contamination are documented at the Point Wells facility (Snohomish County, 2007).

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Point Wells is now used for petroleum products storage, processing, and distribution.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Not applicable

4) Describe special emergency services that might be required.

Not applicable.

5) Proposed measures to reduce or control environmental health hazards, if any:

Not applicable.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Not applicable.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Not applicable.

3) Proposed measures to reduce or control noise impacts, if any:

Not applicable.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The city's marine shoreline extends 4.1 miles along Puget Sound. Most of the land along the shoreline is used for a BNSF railroad line, which forms a physical barrier between the shoreline and existing residential neighborhoods located landward of the railroad line. Along with the railroad, the bluff system along Puget Sound precludes extensive development. If the Future Service Annexation Area (Point Wells) is included in the total land area, about 9% of the total length of the city's Puget Sound shoreline is used for single family residential uses, mostly concentrated in the Apple Tree Lane neighborhood located in Segment B (see Figure 1) (ESA Adolfson, 2008). Other uses along the shoreline include a King County wastewater pump station, Richmond Beach Saltwater Park, Kayu Kayu Ac Park, and the Innis Arden Reserve.

Point Wells is located immediately north of the city limits but within the Urban Growth Area (UGA). It is currently used mainly for petroleum products storage and distribution, and could be redeveloped into a mixed use project with residential and commercial uses consistent with the Snohomish County Urban Village zoning district. Snohomish County and the Town of Woodway include Point Wells in their SMPs. The Point Wells site also contains the outfall for King County's Brightwater Treatment Plant marine outfall (ESA Adolfson, 2008).

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No.

c. Describe any structures on the site.

The City's shoreline jurisdiction is composed of single-family homes, the BNSF Railway, and in the annexation area of Point Wells, an industrial facility containing a large dock, bulkheads, wooden structures and petroleum storage tanks.

Beginning in the north in the City's annexation area, the Point Wells industrial facility, used for petroleum product storage, processing, and distribution, abuts the Puget Sound shoreline. The site contains several industrial storage tanks used for petroleum storage, pipes for transporting petroleum, and a warehouse. Along with riprap and sheet pile shoreline modification at Point Wells, a deepwater pier over 1,000 feet in length is located at the site and a smaller dock facility is located on the site north of the main pier.

The Brightwater regional wastewater treatment system outfall is located on the property adjacent to the southeast corner of the industrial facility (ICF, 2009). The BNSF Railway enters shoreline jurisdiction in the southern corner of the property.

The BNSF Railway right-of-way is the most dominant structure in the shoreline. The railway extends in a north-south direction along the entire length of the city's shoreline planning area. As a result of the BNSF railroad bed, the entire length of the City's shoreline is armored with riprap and bulkheads (WDNR, 2001).

Single-family residences begin just south of the King County and Snohomish County line, along with the King County Richmond Beach Pump Station and Kayu Kayu Ac Park (public park). The King County Richmond Beach Pump Station contains a storage warehouse and 30-inch diameter emergent overflow outfall pipe (ESA Adolfson, 2008). With the exception of residential properties in the Apple Tree Lane neighborhood, residential properties are on the east side of the BNSF Railway. Apple Tree Lane is accessed by a bridge across the BNSF Railway. The shoreline in the Apple Tree Lane neighborhood is modified with vertical concrete and wooden bulkheads (ESA Adolfson, 2008).

Richmond Beach Saltwater Park (public park) contains a pedestrian bridge which provides access over the BNSF railroad tracks. Public parks include picnic areas, shelter buildings, and playground structures. The private and semi-private open spaces include no structures within the remaining shoreline jurisdiction to the southern city limits.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

In Shoreline, the properties are zoned low-density residential (R4 and R6) (City of Shoreline, 2012). In Snohomish County, the Point Wells site is zoned as Urban Village (Snohomish County, 2018).

f. What is the current comprehensive plan designation of the site?

The Comprehensive Plan designations within the City's shoreline jurisdiction are Mixed Use 1 at the Point Wells site, Public Facility along the BNSF railroad, Low Density Residential for the Apple Tree Lane residential area, Public Open Space for Richmond Beach Saltwater Park and Innis Arden Reserve Park, and Private Open Space at Boeing Creek Reserve, Blue Heron Reserve, and Storm Creek Reserve (City of Shoreline, 2012).

g. If applicable, what is the current shoreline master program designation of the site?

The City's SMP has 6 shoreline environments: Aquatic, Point Wells Urban, Point Wells Urban Conservancy, Shoreline Residential, Urban Conservancy, and Waterfront Residential. No changes to the shoreline environment designations will occur as a result of this periodic review and update.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Critical areas have been identified in the shoreline area, including geologic hazard areas, wetlands, and fish and wildlife habitat areas. This update includes an update to the Critical Areas regulations within the shoreline zone.

i. Approximately how many people would reside or work in the completed project?

The only area where people live within shoreline jurisdiction is in the neighborhood of Appletree Lane. This area consists of approximately 30 homes. There are no office facilities within shoreline jurisdiction.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Not applicable.

I. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The City's SMP has been developed as both a policy and regulatory program. As such, the SMP is a part of and was developed to be consistent with the *City of Shoreline Comprehensive Plan*.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Not applicable.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None. The proposed update would not provide housing or change the underlying Comprehensive Plan land use designations or zoning districts.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Adoption of the SMP is a non-project action and no specific structures are proposed. The maximum permitted height for the city's shoreline, based on the zoning designation and the SMP, is 35 feet.

b. What views in the immediate vicinity would be altered or obstructed?

Adoption of the SMP is a non-project action and no specific structures are proposed. Substantial development or redevelopment within the shoreline planning area within the City limits is unlikely. However, limited development may occur on vacant parcels, residential parcels with potential for redevelopment, and residential parcels that can be subdivided. These

redevelopments could result in altered or obstructed views; however, redevelopment is required to follow the City's development standards (SMC 20.50). The Highlands and Innis Arden neighborhoods maintain covenants that limit the potential for views to be altered or obstructed (Innis Arden III, 1949; Amended By-laws of the Highlands, 2017).

c. Proposed measures to reduce or control aesthetic impacts, if any:

SMP requires shoreline uses and activities to be designed and operated to avoid blocking, reducing, or adversely interfering with the public's visual access to the water and shorelines from public locations.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Not applicable.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not applicable.

c. What existing off-site sources of light or glare may affect your proposal?

Not applicable.

d. Proposed measures to reduce or control light and glare impacts, if any:

The SMP includes measures to minimize off-site glare to avoid impacts to wetlands and fisheries (SMC 20.230.020.H).

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Kayu Kayu Ac Park, Richmond Beach Saltwater Park, and Innis Arden Reserve are public recreational areas located within shoreline jurisdiction.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

One goal of the Shoreline Management Act is to provide and enhance public access and recreational opportunities in shorelines of the state. The City's SMP requires that shoreline development avoid blocking or interfering with normal public use or access to publicly owned shorelines and waterbodies.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

There are no aboveground buildings, structures, or sites in or near the shoreline planning area that are listed in a national, state, or local preservation register (Department of Archaeology and Historic Preservation, 2019; King County Historic Preservation Program, 2019; League of Snohomish County Historical Organizations, 2015a). There are 17 single family residences along 27th Avenue Northwest, an area locally referred to as "Apple Tree Lane", whose built date ranges from 1920 to 1965. The built date for these residences is greater than 45 years and would make them potentially eligible for listing in a historic register.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No archaeological sites, cemeteries, or traditional cultural places are recorded in or near the shoreline planning area (Department of Archaeology and Historic Preservation, 2019). The Statewide Predictive Model for encountering precontact-era sites classifies this location as Very High Risk – Survey Highly Advised (Department of Archaeology and Historic Preservation, 2010). This model does not take into account potential impacts from development. Seven prior cultural resources assessments have included portions of the shoreline jurisdiction; these surveys did not identify any cultural resources within the shoreline planning area (Copass, 1996; Gill and Baldwin, 2008; Gillis and Larson, 2006a, 2006b, 2006c; Gillis et al., 2006; Juell 2006).

The shoreline planning area is within the traditional territory of the Duwamish, Snohomish, Snoqualmie, and Suquamish peoples (Suttles and Lane 1990; Thrush, 2007). They are considered part of a shared Southern Coast Salish culture group which spoke common dialects of Northern and Southern Lushootseed language (Suttles and Lane 1990). Ethnographic studies and archaeological evidence clearly show heavy use of shorelines and waterways by Native Americans throughout the Puget Sound. There are no known recorded villages within the shoreline planning area, however there are four Native American placenames associated with the area and its stream drainages. The recorded placenames are: *ʔəʔəʔstubus* meaning "like a man coming" for an area south of Point Wells, *kayuʔkayuʔac* meaning "kinikinnick plant, Indian tobacco" at Richmond Beach, *kaadəb* meaning "has mouth open" for a small creek at Shoreline likely Boeing Creek, and *xʷəxʷədʔilc* meaning "sharp edge" for the high bluffs in Shoreline south

of Spring Beach (Hilbert et al. 2001). These areas would have provided seasonal resource gathering as well as campsites associated with them and indicate an established Native American presence in the general area.

The earliest survey of the shoreline planning area did not record any homesteads, trails, or other evidence of past use (US Coast Survey, 1874; US Surveyor General, 1859, 1860). The shoreline planning area passes through several 19th century land patents, filed between 1865 and 1877 (US Surveyor General, 1859, 1960). The general area began to develop with the arrival of the Great Northern Railway Company providing access to Seattle along the shoreline in 1891 (Stein, 1999). Early development included logging, mills, and marine industry. In 1904, the Richmond Beach Sand and Gravel Company was processing sand and gravel at what is today's Richmond Beach Saltwater Park (Gils and Balwin, 2008).

By 1907, a shipyard was developed along the shoreline at Point Wells by the Portland Ship Building Company (Anderson Map Company, 1907; Stein, 1999). Early maps and aerial photography show structures, roads, and a wharf at Richmond Beach associated with this development (Anderson Map Company, 1910; HistoricAerials.com, 2019; King County Aerial Survey, 1936; King County Roads, 1890; Kroll Map Company, 1912, 1926; League of Snohomish County Historical Organizations, 2015b; Metsker Map Company, 1936; Pacific Aerial Survey 1937a, 1937b, 1937d, 1937e; US Geological Survey, 1895).

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

As a non-project action, adoption of the SMP should have no direct impacts on any cultural or historic resources. The Historical/Cultural Element of the SMP provides general goals and policies to ensure important archaeological, historical, and cultural sites located within the shoreline jurisdiction are identified, protected, preserved, and restored for educational and scientific purposes (SMC 20.230.020.1). It also aims to adopt standards that ensure the protection and preservation of historic and cultural sites. Historic preservation is also addressed in the Community Design Element of the 2012 Shoreline Comprehensive Plan.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

All shoreline permits issued by the City require immediate work stoppage and City, tribe, and State Department of Archaeology and Historic Preservation notification when any item of archaeological interest is uncovered during excavation. Permits issued in areas known or likely to contain archaeological artifacts and data require a site inspection and evaluation by an archaeologist in coordination with affected Tribes prior to disturbance and for monitoring of potentially disruptive activities.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Point Wells Road allows access to Segment A from Richmond Beach Drive NW, which is adjacent to the BNSF Railway from Point Wells down to the top of Richmond Beach Saltwater Park. The Apple Tree Lane neighborhood in Segment B is along 27th Avenue NW and accessed by turning off of Richmond Beach Drive NW to NW 195th Court. Richmond Beach Saltwater Park in Segment C is accessed by NW 190th Street and 20th Avenue NW. Residences between Richmond Beach Saltwater Park and Blue Heron Creek Reserve are accessed by 16th Avenue NW and 17th Place NW. Residences between Blue Heron Creek Reserve and Innis Arden Reserve Park in Segment D are accessed by Springdale Place NW and 17th Avenue NW. Access to Innis Arden Reserve Park is provided by 15th Avenue NW to the north and 16th Avenue NW to the south. A few residences along the shoreline in Segment E between Innis Arden Reserve Park and Boeing Creek Reserve are accessed by NW 167th Street and 16th Avenue NW. Beach Drive is a private road through the south side of Boeing Creek Reserve that provides direct access to the shoreline. Residences in the Highlands neighborhood are accessed by Olympic Drive, Spring Drive, and Cherry Loop NW. Figure 1 shows the shoreline planning segments used to describe the existing street system in the shoreline area.

As a non-project action, adoption of the SMP should have no direct impacts on access to the shoreline. The SMP requires shoreline uses and activities to be designed and operated to avoid blocking, reducing, or adversely interfering with the public's access to the water and shorelines.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

King County Metro runs bus route, 304, from Downtown Seattle up Interstate 5 through Shoreline. There is a stop for this route at the corner of Richmond Beach Drive and NW 196th Place located outside shoreline jurisdiction which is approximately 0.3 miles from Kayu Kayu Ac Park to the north and Richmond Beach Saltwater Park to the south. King County Metro also runs a bus route, 348, from Northgate through Shoreline that has the same stops within Shoreline as route 304.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Not applicable. The SMP revisions are a non-project action. The location of parking areas in or near shoreland areas shall be located outside of the minimum setbacks for the shoreline designation (SMC 20.230.120 – Parking Areas).

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

No.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

An existing railroad line owned and operated by BNSF is located in areas covered by the SMP.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

Not applicable. The SMP revisions are a non-project action.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

Not applicable.

- h. Proposed measures to reduce or control transportation impacts, if any:**

The SMP requires that transportation facilities be planned, located, and designed so that routes will have the least possible adverse effect on unique or fragile shoreline features, will not result in a net loss of shoreline ecological functions, minimize negative aesthetic impacts, or adversely impact existing or planned water-dependent uses.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

No.

- b. Proposed measures to reduce or control direct impacts on public services, if any.**

Not applicable.

16. Utilities

a. Circle utilities currently available at the site:

Electricity, water, refuse service, telephone, sanitary sewer

c. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No new utilities are proposed. The SMP states that new utilities should be located inland from the land/water interface, preferably out of shoreline jurisdiction, unless this location is reasonably necessary for the efficient operation of the utility facility or service. Utilities are required to be located and designed to avoid negative impacts to public access area and significant natural, historic, archaeological or cultural resources (SMC 20.230.270). Utilities are also encouraged to be jointly used with other utility and transportation rights-of-way. Underground utility facilities are permitted while above ground utility facilities require a conditional use permit (SMC Table 20.230.081).

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____



Name of signee Miranda Redinger, AICP

Position and Agency/Organization Senior Planner, City of Shoreline

Date Submitted: March 1, 2019

D. Supplemental sheet for nonproject actions

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The proposal would not increase discharges to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise. All development and redevelopment in the shoreline jurisdiction is subject to applicable local, state and federal regulatory requirements, in addition to the provisions of the SMP and the City's *Surface Water Master Plan*. A cumulative impacts analysis (CIA) addendum was completed by ESA as part of the SMP update to analyze the potential adverse impacts that could result from uses and developments permitted through the SMP.

Proposed measures to avoid or reduce such increases are:

The SMP includes policies and regulations for the protection of shoreline environment, addressing impacts of specific uses and shoreline modifications. The development standards and regulation of shoreline uses and modifications provide more protection for shoreline ecological processes and functions. The standards and regulations limit activities that could result in adverse impacts to the shoreline environment.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The SMP was developed, in part, to meet the goal of "no net loss" of shoreline ecological functions. Degradation of the natural environment and shoreline ecological functions due to development will be avoided, minimized, or mitigated in accordance with the SMA. Additionally, the *City of Shoreline Shoreline Master Program Update Restoration Plan* addresses the goal of improving shoreline ecological functions that have been degraded over time from past development activities. The updated SMP provides protection and enhancement of fish and wildlife habitat, natural vegetation, and management of critical areas through goals, policies, development standards, use regulations, and mitigation requirements.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

The SMP revisions would incorporate the critical areas regulations adopted in 2015. These critical area regulations are more protective of plants, animals, fish and marine life than the current SMP.

Additional protections of native vegetation and limitations on shoreline developments are also provided for in the SMP. The SMP requires that all uses and developments (even exempt activities) achieve no net loss of ecological functions. A cumulative impacts analysis addendum was completed as part of the SMP update to analyze the potential adverse impacts that could result from incorporation of the 2015 critical areas ordinance. The CIA concluded that over time reasonably foreseeable development in the shoreline would not result in a net loss of ecological function such as fish and wildlife habitat.

3. How would the proposal be likely to deplete energy or natural resources?

The SMP revisions would not result in depletion of energy or natural resources. Extractive or resource based industries, such as mining or forestry are prohibited in all shoreline environments in the SMP. This SMP update does not alter or change this prohibition.

Proposed measures to protect or conserve energy and natural resources are:

The shoreline environments and regulations were developed with the intent to preserve the city's natural resources.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Generally, The SMP establishes policies and regulations protecting and conserving critical areas (SMC Chapter 20.240 – SMP Critical Areas Regulations) including threatened or endangered species habitat and wetlands. The SMP revisions would incorporate a critical areas ordinance that is more protective of critical areas than the current SMP. Increased public access to publicly-owned areas of the shoreline is a goal of the City's SMP with regulations supporting this goal (SMC 20.230.040). Another goal of the City's SMP is the identification, preservation, protection, and restoration of shoreline areas, buildings, and sites having historical, cultural educational, and scientific values (SMC 23.230.020.1). Floodplain management policies and regulations in the SMP include limiting upland development in areas that are historically flooded and integrating public access into the design of flood management facilities (SMC 20.230.030.B). The *City of Shoreline Shoreline Master Program Update Restoration Plan* would provide the city and its residents opportunities to improve or restore ecological functions that have been impaired as a result of past development activities. In addition, the SMP would complement the existing city, state, and federal efforts to protect shoreline functions and values.

The City's shoreline jurisdiction does not contain wild and scenic rivers, wilderness areas or prime farmlands.

Proposed measures to protect such resources or to avoid or reduce impacts are:

The SMP was developed to be consistent with the state shoreline guidelines (WAC 173-26). The WAC provides a level of protection to assure no net loss of ecological functions and values. Measures include protection of critical areas by buffering and enhancement and protections of the native shoreline vegetation.

A cumulative impacts analysis addendum was completed as part of the SMP update to analyze the potential adverse impacts that could result from uses and developments permitted through the SMP. The CIA concluded that over time reasonably foreseeable development in the shoreline would not result in a net loss of ecological function.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The City of Shoreline has an established land use pattern in the shoreline area that predates current codes and regulations. The pattern includes the BNSF railroad ROW, residential development both waterward (Apple Tree Lane) and landward of the railroad ROW, established parks and the Point Wells industrial area in Snohomish County within the city's potential annexation area. There is almost no vacant land in the shoreline area within city limits.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Redevelopment that will occur over time will be subject to the SMP and other City regulations. The SMP contains shoreline environment designations consistent with both the existing land use pattern and Comprehensive Plan land use designations.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The SMP revisions do not establish new or increased density of land use patterns. Reasonable foreseeable development will likely be redeveloped property rather than new development within the city limits. The SMP revisions will likely not impact demand on transportation, public services, or utilities because it does not alter the redevelopment potential of any sites.

Proposed measures to reduce or respond to such demand(s) are:

No specific measures are proposed as increased demands are not anticipated.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The updated SMP is designed to be consistent with other local, state and federal laws. The proposal updates and integrates the critical areas regulations from 2015 that were deemed to meet the test for "best available science" and provides greater protection for critical areas such as wetlands, streams, fish and wildlife habitat conservation areas and geologically hazardous areas.

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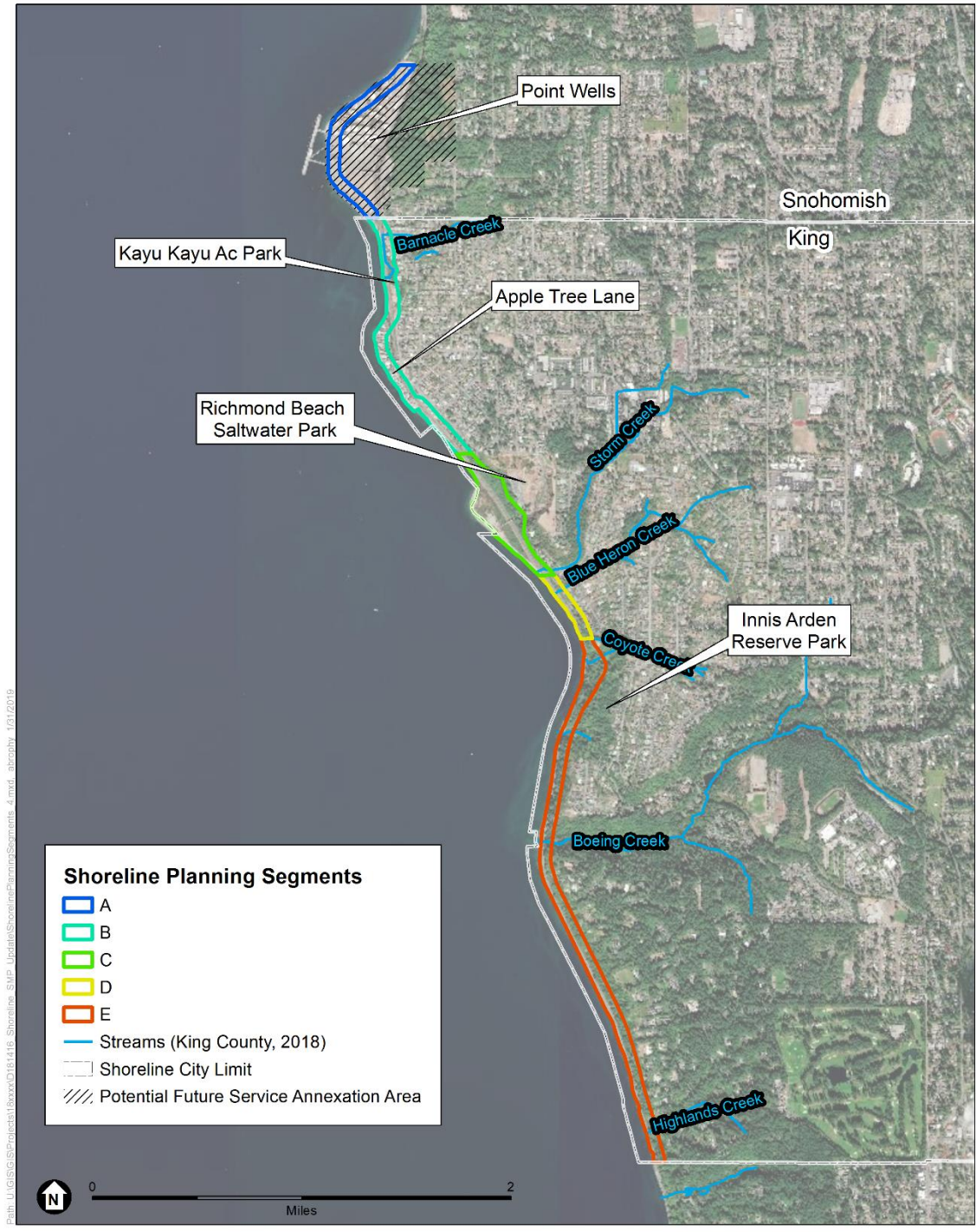
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SOURCE: City of Shoreline, 2019; ESA, 2019; King County, 2018

D181416 City of Shoreline SMP Update

Figure 1
City of Shoreline Shoreline Planning Segments
Shoreline, Washington



Appendix A

Ecology Periodic Review Checklist

SHORELINE MASTER PROGRAM PERIODIC REVIEW

Periodic Review Checklist

Introduction

This document is intended for use by counties, cities and towns conducting the “periodic review” of their Shoreline Master Programs (SMPs). This review is intended to keep SMPs current with amendments to state laws or rules, changes to local plans and regulations, and changes to address local circumstances, new information or improved data. The review is required under the Shoreline Management Act (SMA) at [RCW 90.58.080\(4\)](#). Ecology’s rule outlining procedures for conducting these reviews is at [WAC 173-26-090](#).

This checklist summarizes amendments to state law, rules and applicable updated guidance adopted between 2007 and 2017 that may trigger the need for local SMP amendments during periodic reviews.

How to use this checklist

See Section 2 of Ecology’s *Periodic Review Checklist Guidance* document for a description of each item, relevant links, review considerations, and example language.

At the beginning: Use the review column to document review considerations and determine if local amendments are needed to maintain compliance. See WAC 173-26-090(3)(b)(i).

At the end: Use the checklist as a final summary identifying your final action, indicating where the SMP addresses applicable amended laws, or indicate where no action is needed. See WAC 173-26-090(3)(d)(ii)(D), and WAC 173-26-110(9)(b).

Local governments should coordinate with their assigned [Ecology regional planner](#) for more information on how to use this checklist and conduct the periodic review.

<i>Row</i>	<i>Summary of change</i>	<i>Review</i>	<i>Action</i>
2017			
a.	OFM adjusted the cost threshold for substantial development to \$7,047.	The City’s current definition does not include updated price structure.	Update Substantial Development definition to refer to RCW for current cost threshold at the time of application submittal.
b.	Ecology amended rules to clarify that the definition of “development” does not include dismantling or removing structures.	The City’s current definition does not include this clarification.	Amend the definition of Development, Shoreline to add “Development does not include dismantling or removing structures if there is no other associated development or re-development.”
c.	Ecology adopted rules that clarify exceptions to local review under the SMA.	The exceptions to local review covered under WAC 173-27-044 and -045 apply whether or not they are included in local SMPs. However, to ensure the statutory directives are implemented consistently, Ecology recommends maintaining a section in local SMPs to address these exceptions.	Create a new section listing these exceptions under SMC 20.220.015. Do not combine these exceptions directly into the list of exemptions from the requirement for a substantial development permit under WAC 173-27-040. Projects that are listed as “permit-exempt” still need to meet substantive standards of the SMA, whereas for these projects there is no local review.
d.	Ecology amended rules that clarify permit filing procedures consistent with a 2011 statute.	The amendment to RCW 90.58.140 applied on its effective date – July 22, 2011, regardless of whether permit procedures are specifically outlined in local SMPs. However, if an SMP describes the permit filing process, Ecology recommends that it should be reviewed for consistency with the 2011 statutory amendments.	Add a new section under 20.220.080(D) Local Permit Filing Procedures.
e.	Ecology amended forestry use regulations to clarify that forest practices that only involves timber cutting are not SMA	Ecology has stated that it is not necessary to amend local SMP forestry regulations to reflect this clarification.	None.

Row	Summary of change	Review	Action
	<p>“developments” and do not require SDPs.</p>	<p>However, Ecology notes that it could be helpful for jurisdictions with extensive commercial forestry if questions about applicability of forest practices laws and rules arise frequently. The City does not have commercial forestry uses within the shoreline jurisdiction.</p>	
f.	<p>Ecology clarified the SMA does not apply to lands under exclusive federal jurisdiction</p>	<p>Ecology has stated that it is not necessary to amend local SMPs to reflect this clarification, although the City does have lands under exclusive federal jurisdiction within the Shoreline jurisdiction (the railroad corridor per 49 USC 10501(b)). While the federal jurisdiction preempts local regulations regardless of whether or not this is explicitly stated, federal decision-makers are encouraged to consider local regulations.</p>	None.
g.	<p>Ecology clarified “default” provisions for nonconforming uses and development.</p>	<p>Ecology has stated that for local governments that adopted their own tailored provisions for nonconforming use and development during a prior update, the WAC amendments will have no effect. Shoreline already has SMP regulations for nonconforming uses and development in SMC 20.220.150.</p>	None.
h.	<p>Ecology adopted rule amendments to clarify the scope and process for conducting periodic reviews.</p>	<p>Ecology’s new rule describes the process local governments must follow when conducting periodic reviews. Given that the statutory and regulatory process for performing periodic reviews applies regardless, it is not necessary</p>	Amend 20.200.080 to add references to the appropriate RCW and WAC.

Row	Summary of change	Review	Action
		<p>to include any of these new provisions in the City's SMP. The City's SMP describes the periodic review scope but does not address procedures. Ecology recommends consistency with the periodic review rule.</p>	
i.	<p>Ecology adopted a new rule creating an optional SMP amendment process that allows for a shared local/state public comment period.</p>	<p>Ecology has stated that local governments that want to use these provisions should review their SMP amendment procedures to ensure there are no impediments to using this new option. In using this option, a key consideration is coordinating with Ecology on the public comment period, as Ecology needs to send notice to the state interested parties list at the same time as the City's notice. The optional process also requires the City to send a draft of proposed amendments to Ecology for an initial determination before final adoption by the City. Ecology stated that this has been a common practice on an informal basis for many years and can be done without amending the SMP. Shoreline does intend to utilize WAC 173-26-104's optional process for this Periodic Review.</p>	<p>Amend 20.200.090 to reference the appropriate RCW and WAC.</p>
j.	<p>Submittal to Ecology of proposed SMP amendments.</p>	<p>If a local SMP includes a description of the SMP submittal process, they should review the amendments for consistency. Shoreline does not include a description of the SMP submittal process, and staff believes that the existing language in 20.200.090 is sufficient.</p>	<p>None.</p>

Row	Summary of change	Review	Action
2016			
a.	The Legislature created a new shoreline permit exemption for retrofitting existing structures to comply with the Americans with Disabilities Act .	This SMA amendment applied on its effective date, regardless of whether the exemption is specifically listed in the SMP. For SMPs that simply cite the RCW list of exemptions, no change is needed. For SMPs that spell out all the statutory exemptions, the new exemption should be added to the list. Shoreline spells out all statutory exemptions in 20.220.030. In so doing, this list becomes outdated when state law is amended.	Amend 20.220.030 to cite the RCW and WAC list of exemptions, and strike through the list of statutory exemptions, so that this section directly refers to state law and will remain up to date as amendments are made from time to time.
b.	Ecology updated wetlands critical areas guidance including implementation guidance for the 2014 wetlands rating system.	The 2015 Critical Areas Ordinance update applicable to areas of the city outside of the shoreline jurisdictional boundaries incorporated Ecology's 2014 Wetland Rating System (SMC 20.80.310[B]), which will also be incorporated into this Periodic Review as a new chapter – SMC 20.240.	Repeal 20.230.030(C) and replace with 20.240.
2015			
a.	The Legislature adopted a 90-day target for local review of Washington State Department of Transportation (WSDOT) projects.	Shoreline does not have any WSDOT property or state highways within the shoreline jurisdiction, but this does not mean there will never be a WSDOT project in the area.	Amend 20.220.080 to include provision regarding target time for local review and reference RCW 90.58.
2014			
a.	The Legislature raised the cost threshold for requiring a Substantial Development Permit (SDP) for replacement docks on lakes and rivers to \$20,000 (from \$10,000).	Shoreline does not have any lakes or rivers that are subject to regulation pursuant to the SMA.	None.
b.	The Legislature created a new definition and policy for floating	Shoreline does not have any floating on-water residences that were legally established	None.

Row	Summary of change	Review	Action
	on-water residences legally established before 7/1/2014.	before the deadline set by the Legislature.	
2012			
a.	The Legislature amended the SMA to clarify SMP appeal procedures .	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
2011			
a.	Ecology adopted a rule requiring that wetlands be delineated in accordance with the approved federal wetland delineation manual .	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
b.	Ecology adopted rules for new commercial geoduck aquaculture .	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
c.	The Legislature created a new definition and policy for floating homes permitted or legally established prior to January 1, 2011.	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
d.	The Legislature authorized a new option to classify existing structures as conforming .	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
2010			
a.	The Legislature adopted Growth Management Act – Shoreline Management Act clarifications .	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
2009			
a.	The Legislature created new "relief" procedures for instances	City's Comprehensive Update to the SMP was adopted by	None.

Row	Summary of change	Review	Action
	in which a shoreline restoration project within a UGA creates a shift in Ordinary High Water Mark.	Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	
b.	Ecology adopted a rule for certifying wetland mitigation banks .	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
c.	The Legislature added moratoria authority and procedures to the SMA.	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
2007			
a.	The Legislature clarified options for defining "floodway" as either the area that has been established in FEMA maps, or the floodway criteria set in the SMA.	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
b.	Ecology amended rules to clarify that comprehensively updated SMPs shall include a list and map of streams and lakes that are in shoreline jurisdiction.	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.
c.	Ecology's rule listing statutory exemptions from the requirement for an SDP was amended to include fish habitat enhancement projects that conform to the provisions of RCW 77.55.181.	City's Comprehensive Update to the SMP was adopted by Council on August 5, 2013 so State direction prior to that date was incorporated during that process.	None.

Appendix B

Cumulative Impacts Analysis Addendum

Final

**CITY OF SHORELINE
2019 SHORELINE MASTER PROGRAM PERIODIC UPDATE
Cumulative Impacts Analysis Technical Addendum**

Prepared for
City of Shoreline

March 2019



Final

**CITY OF SHORELINE
2019 SHORELINE MASTER PROGRAM PERIODIC UPDATE
Cumulative Impacts Analysis Technical Addendum**

**Prepared for
City of Shoreline**

March 2019

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Cumulative Impacts Analysis Addendum

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1. INTRODUCTION

In May 2013, the City of Shoreline (City) adopted an updated Shoreline Master Program (SMP) to comply with the Washington State Shoreline Management Act (SMA) and the state’s shoreline guidelines. As part of the update effort, the City was required to evaluate the cumulative impacts of “reasonably foreseeable” future development to verify that the proposed policies and regulations for shoreline management are adequate to ensure *no net loss* of shoreline ecological functions. In 2012, the City completed an assessment of cumulative impacts from the SMP, and concluded that anticipated development and use occurring under the SMP would not result in cumulative impacts and would meet the no net loss standard (ESA Adolfson, 2012). A key component of protecting shoreline ecological functions under the adopted SMP was integration of the City’s Critical Areas regulations (Shoreline Municipal Code Chapter 20.80) into the SMP documentation. The SMP incorporated the version of the critical areas regulations that was adopted in 2006.

The City completed a comprehensive update to critical areas regulations, with City Council adoption occurring on December 7, 2015. In an effort to maintain consistent standards and protections for critical areas throughout Shoreline, the City intends to incorporate the updated critical areas standards into the SMP. This will require an amendment to the SMP to incorporate the new critical area standards.

This document provides a planning level assessment of the potential cumulative impacts that would occur if the updated critical areas standards are incorporated into the SMP. The analysis is an addendum to the cumulative impact analysis (CIA) that was prepared in support of the SMP in 2012 (ESA Adolfson 2012). This addendum is limited in scope to focus only on the integrated critical area regulations as presented to the Planning Commission on January 17, 2019 and February 21, 2019. These critical area regulations are based on the City Council Final Critical Areas Development Code, Attachment A to Ordinance No. 723, adopted by City Council on December 7, 2015 but have been amended to apply within shoreline jurisdiction.

As with the 2012 CIA, this addendum is limited to cumulative impacts of reasonably foreseeable future development in areas subject to SMA jurisdiction. For the City of Shoreline, shorelines of the state include approximately 3.46 linear miles of the Puget Sound shoreline within the city and 0.65 linear miles of Puget Sound shoreline within the area commonly referred to as Point Wells, which is part of the City’s potential future service annexation area.

1.1 Overview of Revisions

The 2013 SMP synthesizes the City’s critical areas regulations (SMC 20.80), as adopted in 2006, with Washington State Department of Ecology (Ecology) best available science (BAS) guidance available in 2013. Critical areas standards for protection of geologic hazard areas, flood hazard areas, wetlands, fish and wildlife habitat conservation areas, stream areas, and critical aquifer recharge areas all apply within shoreline jurisdiction.

The City initiated the critical areas review process in 2015 and contracted with AMEC Foster Wheeler, who subcontracted with Wood Environment & Infrastructure Solutions, Inc. (Wood), to provide a new review of BAS for the geologic hazard areas section of the critical areas regulations. City staff relied on synthesis and guidance documents provided by Ecology to determine current BAS for the wetlands, streams, and fish and wildlife habitat sections of the critical areas regulations. The flood hazard areas and aquifer recharge areas sections of the critical areas regulations were not updated in the 2015 review process. Using Wood's geologic hazard recommendations and City staff recommendations based on BAS, as well as input from citizens and other stakeholders, the City developed a Proposed Critical Areas Ordinance Development Code Regulations Draft (dated October 2015) for City Council review. The City Council reviewed proposed critical areas amendments, made limited additional code revisions, and on December 7, 2015 adopted the new critical areas regulations.

This CIA addendum supports the City's 2019 SMP periodic review, which is required by Ecology. This is a minor update to address changes in state law as well as locally-identified issues. As part of the SMP periodic review, the critical areas regulations adopted by the City in 2015 will be integrated into the critical areas protections within the SMP. Some of the amendments would alter the standards for geologic hazard areas, streams, and fish and wildlife habitat areas, and wetlands – all of which play an important role in maintaining shoreline ecological functions. Revisions to the regulations that have the greatest potential effect on shoreline ecological functions are discussed in Chapter 4.

2. GENERAL SHORELINE CONDITIONS

The City's shoreline jurisdiction is composed of a variety of natural and man-made characteristics that include natural beaches, wooded slopes, single-family homes, the BNSF Railway, and in the potential future service annexation area of Point Wells, an industrial port. Point Wells, a 100-acre industrial site located directly north of the city along Puget Sound, is currently under Snohomish County jurisdiction and is a potential future service annexation area for the City of Shoreline (City of Shoreline, 2012).

Key basin-wide and reach-specific circumstances affecting the City's shoreline are documented in the 2012 CIA (ESA Adolfson, 2012) and the *Shoreline Inventory and Characterization Report* (ESA Adolfson, 2010). Based upon a review of existing information, these circumstances have not changed substantially in the last seven years. Table 1 below describes the shoreline planning segments used in the *Shoreline Inventory and Characterization Report* (Figure 1). The segments are based broadly on the physical distinction along the shoreline, the level of ecological functions provided by each segment, as well as existing land uses and zoning designations.

- The BNSF Railway right-of-way (ROW) extends in a north-south direction along the entire length of the City's shoreline planning area. It is the most dominant land use in the shoreline, occupying 48 percent of the total shoreline planning area. Residential development occupies approximately 19 percent of the total shoreline planning area while Point Wells (in the potential future service annexation area), the only industrial property located along the Puget Sound shoreline, occupies approximately 20 percent. The remaining land uses are parks and open space (8 percent) and vacant properties (2 percent).
 - Public access opportunity is provided at Richmond Beach Saltwater Park in Segment C, Kayu Kayu Ac Park, in Segment B, and Innis Arden Reserve in Segment E.
 - Blue Heron Reserve (Segment C), Coyote Reserve (Segment D) and Boeing Creek Reserve (Segment E) are privately owned. No public shoreline access is permitted from these reserves along the bluff.
- There are no existing docks, piers, or over-water structures along Puget Sound within the city limits. Point Wells contains a large industrial dock used for both import and export of materials to and from the facility.
- In the city, coastal bluffs are separated from the shoreline by the BNSF Railway, thus completely removing bluff sediment sources. These shore modifications also preclude net shore-drift along the Puget Sound. A small amount of sediment is delivered by fluvial sources (streams) in the city, although this process is also impaired by culvert systems and the BNSF Railway. Forage fish spawning still occurs at these limited points of sediment input.

- Clearing of vegetation along the marine shoreline for the BNSF Railway construction and maintenance, residential uses, bulkheads and other shoreline armoring has resulted in a lack of large woody and organic debris available for recruitment to the marine system. The lack of debris in turn affects the stability of the beaches as the presence of beach logs and debris can reduce erosion by dissipating wave energy and trapping sediment. Large woody debris also provides thermoregulation of sediment for spawning forage fish and detritus recruitment.
- The Puget Sound nearshore environment is a highly productive zone that provides habitat for a variety of aquatic and terrestrial species. Important documented features of the city’s nearshore that provide habitat include:
 - Banks, bluffs, beaches and backshore (sediment sources, substrate, and storm berms);
 - Tidal flats (intertidal or shallow subtidal areas used by juvenile salmonids, shorebirds, and shellfish);
 - Eelgrass meadows and kelp forests (feeding and rearing habitat for wide variety of marine organisms); and
 - Stream mouths and pocket estuaries (fish and wildlife corridors and source of fluvial sediment to nearshore).
- Within the City’s shoreline planning area, there are seven streams that feed into the Puget Sound: an unnamed tributary of Barnacle Creek in Segment A; Barnacle Creek and Lost Creek in Segment B; Storm Creek in Segment C; Blue Heron Creek in Segment D; and Coyote Creek, Boeing Creek, and Highlands Creek in Segment E.

Table 1. Shoreline planning segments

Shoreline Segment	Approximate Length (feet)	Approximate Segment Acreage	General Boundaries
A	3,579	15.6	Potential Future Service Annexation Area / Point Wells: located directly north of the city limits in unincorporated Snohomish County.
B	4,551	21.7	Richmond Beach residential area: the Snohomish County line south to Richmond Beach Saltwater Park.
C	2,659	21.6	Richmond Beach Saltwater Park south to Storm Creek culvert.
D	1,128	5.7	Innis Arden residential area: south of Richmond Beach Saltwater Park to Innis Arden Reserve Park
E	9,286	44.1	Innis Arden Reserve / Highlands: Innis Arden Reserve Park south to city limits.

The following data sources were consulted to see if ecological changes occurred since the preparation of the City’s 2010 Shoreline Inventory and Characterization.

The National Oceanic and Atmospheric Administration’s Coastal Change Analysis Program (C-CAP) Land Cover Atlas was used to find the change in impervious surface in the city’s shoreline planning area. The data is acquired from 30 meter Landsat imagery. No change in the amount of

impervious surface (high, medium, low intensity development) occurred in the shoreline planning area between 2011 and 2016 (NOAA 2011, 2016). No land use data was available for 2008.

Biodiversity corridors are documented within Innis Arden Reserve Park and Boeing Creek Reserve that were not previously identified in the Shoreline Inventory and Characterization Report (WDFW PHS, 2019). Boeing Creek Reserve is now recognized for including a large stand of old growth forest, a forested riparian corridor, shrub-savannah habitat, and marine shoreline. Innis Arden Reserve Park is now included as a biodiversity corridor for the variety of forested, wetland and riparian habitat present. Biodiversity corridors is a new Priority Habitat and Species (PHS) designation developed by WDFW to recognize large undeveloped habitat patches and open spaces as part of planning and building habitat corridors (WDFW, 2009). The updated critical areas standards include biodiversity areas and corridors in Innis Arden Reserve Park and Boeing Creek as state priority habitats (SMC 24.240.270.B.2).

In 2015, Washington Department of Fish and Wildlife mapped the presence of a great blue heron rookery within the city's shoreline just south of Richmond Beach Saltwater Park (WDFW PHS, 2019). The bald eagle nesting area and buffer present near Point Wells in 2008 is no longer mapped as a Priority Habitat and Species area (ESA Adolfson, 2008; WDFW, 2019). While bald eagle nests are still protected under the Migratory Bird Treaty Act and through US Fish and Wildlife Service guidelines, nest locations are no longer tracked or documented by state wildlife biologists.

Coho salmon and coastal cutthroat have been known to use Boeing Creek for breeding and this did not change between 2008 and 2019 (WDFW PHS, 2019). Documented presence of salmonids and forage fish using the Puget Sound nearshore did not change between 2008 and 2019 (ESA Adolfson, 2008; NOAA, 2019; WDFW, 2019). Eelgrass was sampled in 2015 which showed that native eelgrass remains stable and continuous along the shoreline (WDNR, 2015; WDNR, 2019). Kelp forests are mapped as remaining present along the shoreline (WDNR, 2019). Mapped presence of geoduck shifted slightly south between 2008 and present. Geoduck presence now begins at the top of Segment E where it occurred from Segment B to Segment C in 2008 (WDFW, 2019). No change in Dungeness crab presence occurred between 2008 and present (WDFW, 2019).

The City relies on the National Wetland Inventory data and maintains a separate wetland inventory at the local level viewed on the City's Property Information Interactive Map. Two wetlands were identified by Ecology along either side of the railway alignment in Segment C at Richmond Saltwater Beach Park between 2008 and present (City of Shoreline, 2019).

ESA Adolfson (2008) reported that the ShoreZone Inventory stated 97 percent of the City's shoreline was modified, mostly associated with the BNSF railroad bed (WDNR, 2001). The current Coastal Atlas Map uses WDNR data from 2000 to show approximately 85 percent of the City's shoreline as modified (Ecology, 2019). Although there is a discrepancy between the amount of shoreline modification in the city between 2008 and present, it is clear there has not been an increase in modification along the shoreline. It is possible that ESA Adolfson

inaccurately reported the 97 percent shoreline modification or the amount of modification along the shoreline was re-evaluated by WDNR.

3. REASONABLY FORESEEABLE FUTURE DEVELOPMENT

Reasonably foreseeable future development in the City’s shoreline jurisdiction is generally unchanged since preparation of the City’s original CIA in 2012. The only uses that presently occur within shoreline jurisdiction are transportation (including railroad), single-family residences, park or public recreation (on public and private park lands), and utility facilities. Future development is likely to maintain these uses, with no industrial, commercial or mixed uses expected within the city limits in the foreseeable future.

Minimal new shoreline residential development or significant redevelopment has occurred over the last seven years (since the 2012 CIA). There is one lot that was replatted and a new duplex was constructed on the lot (Table 2). Seven other existing residential single family homes completed additions or remodels; all seven are located in Segment B. Table 2 identifies the number of vacant properties present in the City’s shoreline jurisdiction and Future Service Annexation Area in 2012 and the number of properties that underwent remodels or additions by shoreline segment.

Table 2. General land use characteristics of shoreline properties on the Puget Sound shoreline within City of Shoreline limits and potential annexation area of Point Wells

Shoreline Segment	Total Number of Parcels	2012 Vacant Parcels		Change: 2012 - 2019			Shoreline Parks and Open Spaces
		Number	% of total	New Development (#)	Remodel/ Addition (#)	% of total	
A	7	2	0.1	0	0	0	None
B	84	9	3.4	1	7	4.5	Kayu Kayu Ac Park (public)
C	20	4	3.4	0	0	0	Richmond Beach Saltwater Park (public); Storm Creek Reserve (private)
D	17	0	0	0	0	0	Blue Heron Reserve (private)
E	38	9	3.7	0	0	0	Innis Arden Reserve (public); Boeing Creek Reserve (private)

Source: King County, 2019; City of Shoreline, 2019

Houses on existing single-family lots could continue to grow larger through additions; however, zoning density restrictions, the presences of steep slope and landslide hazard areas located throughout portions of Segments B-E, and covenants restricting redevelopment in the Innis Arden and Highlands neighborhoods constrain opportunities for additions, making expansion of existing building footprints less likely. Furthermore, the BNSF Railway restricts development potential because vehicular access across the BNSF tracks is limited. Therefore, general patterns of anticipated future development remain consistent with the 2012 CIA.

Point Wells is the only property that may undergo a major redevelopment. Development of the City’s existing SMP began years before its final approval in 2013. At the start of this process, Point Wells was designated and zoned by Snohomish County as Industrial. This changed in 2009/2010 when Snohomish County redesignated and rezoned Point Wells from Industrial to an

Urban Center. Under Snohomish County's regulations, an Urban Center provides for mixed-use, dense development that could produce upwards of 2.6 million square feet of residential and commercial development. The City has included Point Wells as a Future Service Annexation Area and adopted a subarea plan to establish a less intense vision for the site.

In 2012, Snohomish County removed the Urban Center designation and zoning, reducing it to the Urban Village designation with Planned Community Business zoning. Under an Urban Village designation, the site has the potential to develop at least 1,800 residential units, 20,000 square feet of retail, and 115,000 square feet of office space. However, in 2011, prior to reducing the designation and zoning of the site, a developer submitted applications and became vested to the Urban Center designation.

Snohomish County stopped processing the developer's applications in 2018, effectively terminating an Urban Center development at Point Wells, after more than 7 years of review time. The developer appealed Snohomish County's decision to King County Superior Court, which was recently denied. Thus, at this point it is unknown whether such an intense mixed use development could be built at Point Wells. At the minimum, development consistent with an Urban Village designation is still possible. As stated in the 2012 CIA, if Point Wells were to redevelop, soil and groundwater contamination would be remediated and the nearshore habitat would be restored as mitigation for the redevelopment

4. POTENTIAL IMPACTS OF REVISED STANDARDS

This chapter describes the substantial changes made to the 2006 critical area standards as part of the 2015 update. A discussion of the potential effect on shoreline ecological function is also provided. The critical areas regulation language as presented to the Planning Commission is attached to this addendum in strikethrough / underline format for each topic that is described (see Appendix A). Outside of these major critical areas standards revisions no other substantial changes to the SMP have been evaluated.

4.1 Combine Streams with Fish & Wildlife Habitat section

The City updated the critical areas standards to combine the stream critical areas section with the fish and wildlife critical areas section based on the state model code provisions. Streams and other “waters of the state” are a type of fish and wildlife habitat as defined by the Washington Administrative Code (WAC). This amendment is consistent with state guidance for fish and wildlife habitat protection (CTED, 2007). This change is outlined in Section 20.240.270.

See A-1 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for Fish and Wildlife Habitat.

Likely Effects on Shoreline Ecological Functions

The updated approach will have no effect on shoreline ecological functions. As long as streams and fish and wildlife habitat critical areas are regulated by local jurisdictions, there will be no particular positive or negative impacts to protections of streams or fish and wildlife habitat by integrating the two critical area types.

4.2 Adopt State Water Typing System

State agencies such as Washington Department of Fish and Wildlife (WDFW) and Ecology recommend use of the Washington State Department of Natural Resources (WDNR) stream typing system in Title 222 WAC, the forest practices regulations. The latest stream typing by WDNR classifies streams into Type S (shoreline), Type F (fish-bearing), Type Np (non-fish-bearing, perennial flow) and Type Ns (non-fish-bearing, seasonal flow). The City updated their water typing system to the State Water Typing System. This change resulted in a 10-foot buffer increase for Type Ns habitat streams. This change is outlined in Section 20.240.270(B)(5).

Likely Effects on Shoreline Ecological Functions

This update provides a consistent system that maintains a basis in key physical and ecological differences across streams. The system identifies whether or not streams are used by fish and whether or not they experience perennial or seasonal flow, which is important for protecting

ecological functions of the stream and shoreline. Although the City’s previous typing system was an outdated state stream typing system, the updated approach will have no effect on shoreline ecological functions as the protections (such as buffer requirements for each stream type) were nearly the same.

See A-1 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for stream typing.

4.3 Development Allowances in Separated and Isolated Stream and/or Wetland Buffer

This update addresses sites where existing, legally established roadways, railroads, paved areas, or other structures occur between the site and the stream and/or wetland. Development proposals are allowed in buffer areas isolated by roads or constructed features, if a critical area report determines and the Director of Community Development concurs, that it is a physically separated and functionally isolated stream and/or wetland buffer. This updated language is outlined in Section 20.240.280(D)(6) and 20.240.330(G)(10).

Likely Effects on Shoreline Ecological Functions

Riparian and wetland buffers offer various ecological functions, such as providing shade to the stream in summer and serving as sources of large woody debris. These functions can only exist if the buffer abuts and lies adjacent to the stream or wetland critical area. Physical separation of a stream or wetland from its buffer by an existing road, railroad, or paved area eliminates the protective function of the buffer for the critical area. Therefore, an allowance for development in separated or functionally isolated streams or wetland buffers will have no effect on shoreline ecological functions.

See A-2 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for development in stream and wetland buffers that are separated or isolated from the development.

4.4 Updated Wetland Rating and Buffer Standards

The City updated the wetland rating standards to be consistent with the Ecology 2014 Wetland Rating System for Western Washington. The updated wetland rating standards, found in Section 20.240.320(B), include the wetland rating manual scoring range (i.e., between 9 and 27 under the updated manual versus 1 to 100 in the 2004 manual) that is based on a qualitative scale of functions from high, medium, or low. Wetland buffer widths were updated to be consistent with state guidance and offer both a combined fixed-width and variable-width approach, with a minimum buffer prescribed based on a wetland’s category and an additional buffer based on increasing habitat points (Bunten et al., 2016; “Table XX.1” revised July 2018). The City also updated mitigation ratios in Table 20.240.350(G) based on the type of compensatory mitigation being performed as recommended by current BAS (Bunten et al, 2016).

The updated wetland standards simplify and standardize the mitigation and buffer requirements for projects that need approval at the local and state or federal level.

Likely Effects on Shoreline Ecological Functions

Wetlands in Washington State – Vol. 1 A Synthesis of the Science (Sheldon et al., 2005) confirmed that buffers perform an important water quality function by trapping pollutants before they reach a wetland and can serve as critical habitat for some species in uplands surrounding wetlands and streams. The updated buffer table includes habitat scores and emphasizes the requirement to provide wildlife corridors which may provide additional protection for shoreline ecological functions.

A successful mitigation project often requires the amount of mitigation to be larger than the impact being mitigated for. The updated mitigation ratios will be beneficial to the shoreline as they make up for the spatial and temporal loss of functions associated with development.

See A-3 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for wetlands.

4.5 Clarified Report Content Requirements for Assessment of Geological Characteristics

The City clarified that geotechnical reports (now referenced as hazards assessments) include an evaluation of the geologic characteristics of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. The revised requirements outlined in SMC Section 20.240.240(D) encourage use of BAS when evaluating geological hazard areas.

Likely Effects on Shoreline Ecological Functions

Clarified report requirements guarantee clear and standardized implementation of regulations. The assessment of geological characteristics also requires applicants to conduct site-specific tests, evaluate historic and existing conditions, and evaluate vulnerability of the site to seismic or other geologic events based on scientifically valid methods. Ultimately, this update ensures better protection of shoreline ecological functions.

See A-4 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for hazards assessments.

4.6 Standards for Very High Risk and Moderate to High Risk Landslide Hazard Areas

According to the updated geologically hazardous areas regulations, alteration in very high risk landslide hazard areas or associated 50-foot buffers may be permitted with geotechnical analysis and recommendations, assuming consistency with code requirements and design criteria. Buffers for moderate to high risk landslide hazard areas are based on a recommendation by a qualified geotechnical professional (with potential for no buffer), rather than providing a minimum buffer. The qualified professional would also recommend any additional setbacks for buildings and stormwater facilities adequate to certify no increase in the risk of the hazard. The revision to these

standards, summarized in SMC Sections 20.240.224 (E) and 20.240.230 (D), was evaluated by AMEC Foster Wheeler and approved by Ecology during the City's 2015 Critical Areas Ordinance update (AMEC Foster Wheeler, 2015; City of Shoreline, 2015a).

Likely Effects on Shoreline Ecological Functions

Geologic hazards standards are designed to reduce risks to human health and safety. The updated standards will continue to focus on the protection of life and property. Alteration to and development on coastal feeder bluffs may reduce the potential of these areas to provide sediment delivery to coastal zones, potentially disrupting natural coastal beach accretion. However, the bluffs within the city are somewhat isolated from the shoreline because of the presence of the BNSF railway and associated shoreline armoring, altering the natural delivery of bluff sediment sources.

To better understand the implication of these changes on coastal feeder bluffs, ESA completed a parcel analysis using the City's GIS data for geohazards to identify potential future development in very high risk landslide hazard areas, and moderate to high risk landslide hazard areas. Based on the parcel analysis, a large portion of the parcels within the City's shoreline jurisdiction are within mapped landslide hazard areas (Table 3). Most of the parcels are already developed with residential uses. The majority of the undeveloped parcels within landslide hazard areas are located on the upland side of the BNSF railway. Many of these undeveloped parcels are too narrow to provide sufficient area for new development.

Developed parcels within landslide hazards areas that are located on large lots could have the potential for more extensive additions or, in a few cases, subdivisions. These large parcels are mainly located in the Highlands and Innis Arden neighborhoods. The Innis Arden neighborhood maintains covenants that include a number of mechanisms that limit the potential for subdivision, including access and setback standards (Innis Arden 3, 1949). The Highlands neighborhood also maintains covenants that limit the potential for subdivision, including minimum lot size standards and minimum lot area with a slope less than 20 percent (Amended By-laws of the Highlands, 2017). Although these covenants are not administered or enforced by the City of Shoreline, they serve to constrain the development potential of large lots within landslide hazard areas.

Table 3. Parcels within landslide hazard areas in shoreline jurisdiction

Mapped Landslide Hazard Areas	Total Parcels (#)	Total Area (Acres)	Undeveloped Parcels (#)	Undeveloped Parcels (% of total parcels in shoreline jurisdiction)
Very High Risk + 50-foot Buffer	97	71.4	11	7.6
Moderate to High Risk (no buffer)	62	5.1	4	2.8
Parcels without Landslide Hazard Areas	19	31.5	9	13.2

Source: City of Shoreline, 2015; King County, 2014

Due to the requirements for a detailed geologic hazard analysis by a qualified geotechnical expert and the low potential for foreseeable future development within the very high and moderate to

high risk landslide areas, it appears that the changes to the regulations will not result in an overall net loss of shoreline ecological functions.

See A-4 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for Landslide Hazard Areas.

4.7 General Critical Areas Standards

New critical areas report standards outlined in SMC Sections 20.240.040, 20.240.080 and 20.240.082 must address several topics including: reconnaissance, delineation, analysis, mitigation, and maintenance and monitoring. Contents should include general project information, such as names, location, and site plan, as well as critical areas characterization, impacts, and mitigation plan. Geologic hazards, fish and wildlife habitat, and wetlands each have critical areas report requirements specific to the type of assessment being conducted and mitigation plan requirements specific to the type of impact. Along with the new critical areas report standards, the City requires third-party review of critical areas reports by a qualified professional when the project requires a shoreline variance application or when it is required by the shoreline provisions or Director of Community Development.

Likely Effects on Shoreline Ecological Functions

Detailed report, allowed activities, and review process standards guarantee clear and standardized implementation of regulations. These standards also require applicants to evaluate the condition and function of each critical area based on scientifically valid methods. Ultimately, this update ensures better protection of shoreline ecological functions.

See A-5 of Appendix A for redline/strikeout versions of City adopted critical areas standards revisions for new overall critical areas standards.

5. INTEGRATED CRITICAL AREAS PROVISIONS AND NO NET LOSS

As with the 2012 CIA, this analysis was guided by the three factors identified in the Ecology guidelines for evaluating cumulative impacts and no net loss:

- Current circumstances affecting the shorelines and relevant natural processes;
- Reasonably foreseeable future development and use of the shoreline; and
- Beneficial effects of any established regulatory programs under other local, state, and federal laws.

Existing shoreline conditions and relevant natural processes are consistent with those documented in the 2012 CIA with the exception of biodiversity corridors mapped within Innis Arden Reserve Park and Boeing Creek Reserve and the heron rookery south of Richmond Beach Saltwater Park that were not previously identified in the Shoreline Inventory and Characterization Report. Development proposals within State Priority Habitats and Species areas, such as biodiversity corridors and heron rookeries, are required to prepare a critical areas report and habitat management plan to assess potential impacts and propose mitigation measures. Likewise, reasonably foreseeable future shoreline development and use is generally the same. The adopted critical areas regulation changes, once integrated into the SMP, will maintain protection of shoreline ecological functions.

Several critical areas standards revisions clarify approaches to critical areas mitigation and protection—namely by revising the wetland buffer widths, wetland mitigation ratios, and critical areas report standards. The updated wetland buffer table emphasizes the requirement to provide wildlife corridors that may provide additional protection for shoreline ecological functions. A successful mitigation project often requires the amount of mitigation to be larger than the impact being mitigated for, which is beneficial to the shoreline. Detailed report standards require applicants to evaluate the condition and function of each critical area based on scientifically valid methods. These amendments would improve protection of shoreline ecological functions.

Geologic hazards standards revisions do not include a requirement to assess the functions associated with coastal bluffs which typically positively contribute towards the shoreline ecosystem. However, the bluffs where landslide hazards occur within the City's shoreline jurisdiction are somewhat isolated from the nearshore because of the presence of the BNSF railway bed and associated armoring. Development potential is limited within these landslide hazard areas due to the limited number of vacant parcels and covenants associated with the Innis Arden and Highlands neighborhoods that limit the potential for subdividing large, developed properties. Therefore, geologic hazard standards would result in no net loss of shoreline ecological functions from development.

Conclusions on the future performance of key shoreline functions as a result of the incorporation of the revised critical area standards are summarized as follows:

Hydrology: Loss in hydrological function from baseline is not expected; anticipated change from the current adopted SMP with previous critical areas standards are neutral. In most areas along the City's shoreline, modifications and development have resulted in alterations to natural hydrological functions. The updated critical areas standards would not change major protections for remaining hydrologic functions that are provided by the SMP.

Water Quality: No loss in water quality is expected. The program and critical areas revisions include many criteria to ensure that potential impacts from any allowed development are avoided or minimized.

Habitat: No loss in habitat functions is expected. Habitat elements such as riparian vegetation, associated wetland and tributary stream connectivity, and organic contributions have been altered along the City's shoreline, while localized areas of high value, intact habitat remain (Boeing Creek Reserve and Innis Arden Reserve Park). Additionally, mitigation of any wetland impact would be improved by new buffer and mitigation provisions pursuant to the updated critical areas standards.

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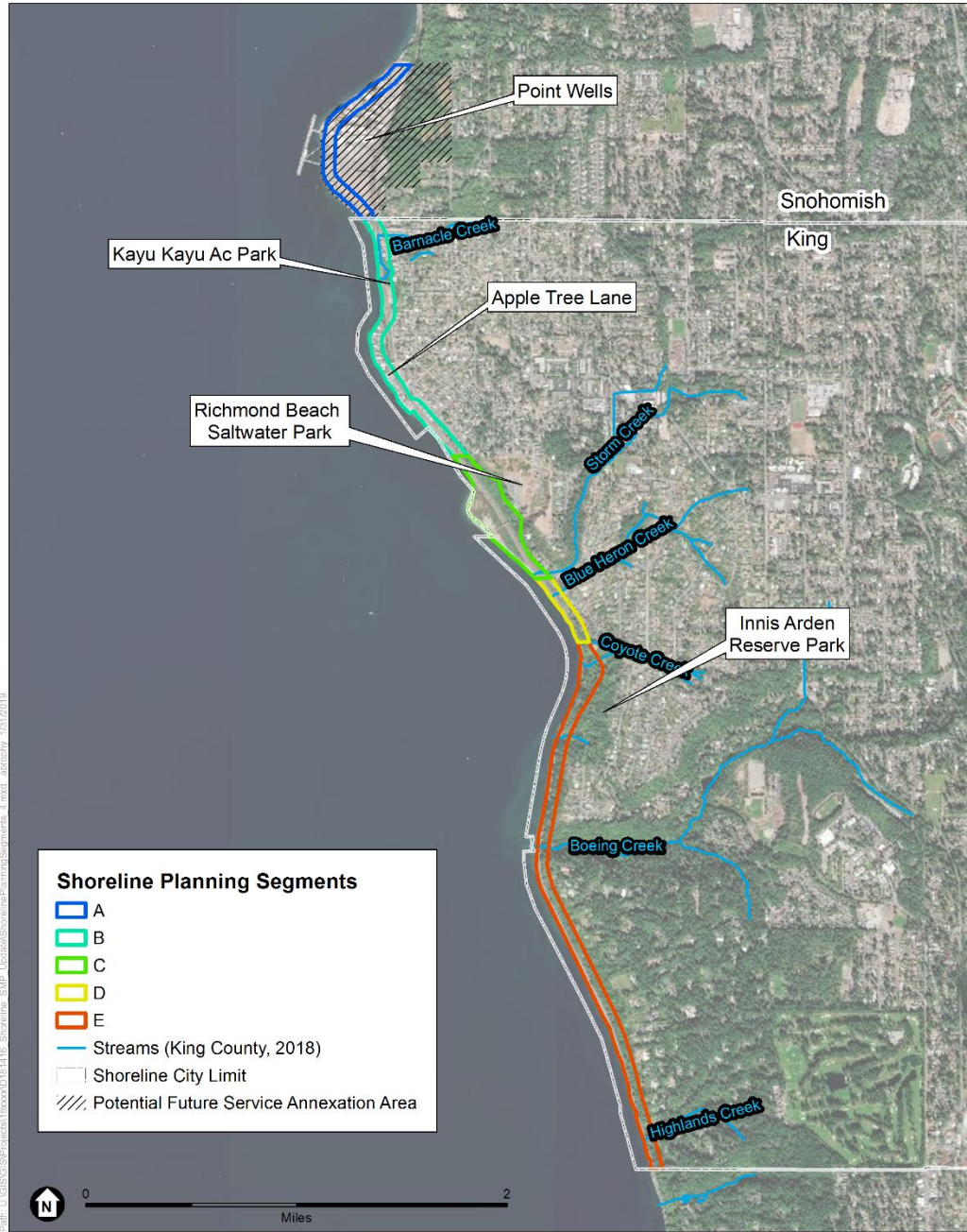
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SOURCE: City of Shoreline, 2019; ESA, 2019; King County, 2018

D181416 City of Shoreline SMP Update

Figure 1
City of Shoreline Shoreline Planning Segments
Shoreline, Washington



Appendix A

Excerpts of proposed SMC 20.240 SMP Critical Areas

A-1 Fish & Wildlife Habitat Critical Areas Section

Revised Critical Areas sections combining streams with fish and wildlife habitat and adopted State Water Typing system.

20.240.270 Fish and wildlife habitat – Classification and designation.

A. The City designates the following fish and wildlife habitat conservation areas that meet one or more of the criteria in subsection B of this section, regardless of any formal identification, as critical area, and, as such, these areas are subject to the provisions of this chapter. These areas shall be managed consistent with best available science; including WDFW’s Management Recommendations for Priority Habitat and Species. The following fish and wildlife habitat conservation areas are specifically designated, and this designation does not preclude designation of additional areas as consistent with the criteria in subsection B of this section:

1. All regulated streams and wetlands and their associated buffers as determined by a qualified specialist.
2. The waters, bed and shoreline of Puget Sound up to the OHWM.

B. Fish and wildlife habitat conservation areas are those areas designated by the City based on review of the best available science; input from WDFW, the Department of Ecology, USACE, and other agencies; and any of the following criteria:

1. Areas Where State or Federally Designated Endangered, Threatened, and Sensitive Species Have a Primary Association.

a. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status. Federally designated endangered and threatened species known to be identified and mapped by the Washington State Department of Wildlife in Shoreline include, but may not be limited to, the following:

- i. Chinook (*Oncorhynchus tshawytscha*):

ii. Southern resident orca or killer whales (*Orcinus orca*).

b. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the State of Washington that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the State without cooperative management or removal of threats as identified by WDFW. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (State endangered species) and WAC 232-12-011 (State threatened and sensitive species), as amended from time to time. WDFW maintains the most current listing and should be consulted for current listing status. State designated endangered, threatened, and sensitive species known to be identified and mapped by WDFW in Shoreline include, but may not be limited to, the following:

i. Northern goshawk (*Accipiter gentilis*);

ii. Purple martin (*Progne subis*).

2. **State Priority Habitats and Species.** Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by WDFW in the Priority Habitats and Species List. Priority habitats and species known to be identified and mapped by WDFW in Shoreline include, but may not be limited to, the following:

a. Biodiversity areas and corridors identified and mapped along Boeing Creek and in and around Innis Arden Reserve Park;

b. Chinook/fall chinook (*Oncorhynchus tshawytscha*);

c. Coho (*Oncorhynchus kisutch*);

- d. Dungeness crab (*Cancer magister*);
- e. Estuarine intertidal aquatic habitat;
- f. Geoduck (*Panopea abrupta*);
- g. Northern goshawk (*Accipiter gentilis*);
- h. Pacific sand lance (*Ammodytes hexapterus*);
- i. Purple martin (*Progne subis*);
- j. Resident coastal cutthroat (*Oncorhynchus clarki*);
- k. Surf smelt (*Hypomesus pretiosus*); and
- l. Winter steelhead (*Oncorhynchus mykiss*).

3. Commercial and Recreational Shellfish Areas. These areas include all public and private tidelands or bedlands suitable for shellfish harvest, including shellfish protection districts established pursuant to Chapter 90.72 RCW, as amended from time to time.

4. Kelp and eelgrass beds and herring and smelt spawning areas.

5. Waters of the State. Waters of the State include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington, as classified in WAC 222-16-030, as amended from time to time. Streams are those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless such watercourses are used by fish or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year-round; provided, that there is evidence of at least intermittent flow during years of normal rainfall. Streams shall be classified in accordance with the DNR water typing system (WAC 222-16-030) hereby adopted in its entirety by reference and summarized as follows:

a. Type S: streams inventoried as “shorelines of the State” under the SMA and the rules promulgated pursuant to the SMA, as amended from time to time;

b. Type F: streams which contain fish habitat. Not all streams that are known to exist with fish habitat support anadromous fish populations, or have the potential for anadromous fish occurrence because of obstructions, blockages or access restrictions resulting from existing conditions. Therefore, in order to provide special consideration of and increased protection for anadromous fish in the application of development standards, shoreline streams shall be further classified as follows:

i. **Anadromous Fish-Bearing Streams (Type F-Anadromous).** These streams include:

(A) Fish-bearing streams where naturally recurring use by anadromous fish populations has been documented by a government agency;

(B) Streams that are fish passable or have the potential to be fish passable by anadromous populations, including those from Lake Washington or Puget Sound, as determined by a qualified professional based on review of stream flow, gradient and natural barriers (i.e., natural features that exceed jumping height for salmonids), and criteria for fish passability established by WDFW; and

(C) Streams that are planned for restoration in a six-year capital improvement plan adopted by a government agency or planned for removal of the private dams that will result in a fish-passable connection to Lake Washington or Puget Sound; and

ii. **Nonanadromous Fish-Bearing Streams (Type F-Nonanadromous).** These include streams which contain existing or potential fish habitat, but do not have the potential for anadromous fish use due to natural barriers to fish passage, including streams that contain resident or isolated fish populations.

The general areas and stream reaches with access for anadromous fish are indicated in the City of Shoreline Stream and Wetland Inventory and Assessment

(2004) and basin plans. The potential for anadromous fish access shall be confirmed in the field by a qualified professional as part of a critical area report;

c. Type Np: perennial nonfish habitat streams;

d. Type Ns: seasonal nonfish habitat streams; and

e. Piped stream segments: those segments of streams, regardless of their type, that are fully enclosed in an underground pipe or culvert.

A-2 Physically Separated and Functionally Isolated Stream and/or Wetland Buffer

Revised Critical Areas section allowances for development in stream and wetland buffers that are separated or isolated from the development.

20.240.280 Fish and wildlife habitat – Required buffer areas.

6. Development Proposals within Physically Separated and Functionally Isolated Stream Buffers. Consistent with the definition of “buffers” (SMC 20.20.012), areas that are functionally isolated and physically separated from stream due to existing, legally established roadways and railroads or other legally established structures or paved areas eight feet or more in width that occur between the area in question and the stream shall be considered physically isolated and functionally separated stream buffers. Once determined by the Director, based on a submitted critical area report to be a physically separated and functionally isolated stream buffer, development proposals shall be allowed in these areas.

20.240.330 Wetlands – Required buffer areas.

10. Development Proposals within Physically Separated and Functionally Isolated Wetland Buffers. Consistent with the definition of “buffers” (SMC 20.20.012), areas that are functionally isolated and physically separated from wetland due to existing, legally established roadways, paved trails eight feet or more in width, or other legally established structures or paved areas eight feet or more in width that occur between the area in question and the wetland shall be considered physically isolated and functionally separated wetland buffers. Once determined by the Director, based on a submitted critical area report to be a physically separated and functionally isolated wetland buffer, development proposals shall be allowed in these areas.

A-3 Wetland Standards

Revised Critical Areas section allowances for development in stream and wetland buffers that are separated or isolated from the development..

20.240.320 Wetlands – Designation and rating.

A. Designation. All areas meeting the definition of a wetland and identification criteria as wetlands pursuant to SMC 20.240.322, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter.

B. Rating. All wetlands shall be rated by a qualified professional according to the current Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington 2014 (Department of Ecology Publication No. 014-06-029, or as revised). Wetland rating categories shall be applied as the wetland exists on the date of adoption of the rating system by the City, as the wetland naturally changes thereafter, or as the wetland changes in accordance with permitted activities.

1. Category I. Category I wetlands are those that represent unique or rare wetland types, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime, or provide a high level of functions. The following types of wetlands are Category I:

- a. Relatively undisturbed estuarine wetlands larger than one acre;
- b. Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR;
- c. Bogs;
- d. Mature and old-growth forested wetlands larger than one acre;
- e. Wetlands in coastal lagoons; and
- f. Wetlands that perform many functions well (scoring 23 points or more based on functions).

2. **Category II.** Category II wetlands are those that are difficult, though not impossible, to replace and provide high levels of some functions. The following types of wetlands are Category II:

a. Estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre;

b. Interdunal wetlands larger than one acre or those found in a mosaic of wetlands; and

c. Wetlands with a moderately high level of functions (scoring between 20 and 22 points).

3. **Category III.** Category III wetlands are those with a moderate level of functions, generally have been disturbed in some ways, can often be adequately replaced with a well-planned mitigation project, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands. The following types of wetlands are Category III:

a. Wetlands with a moderate level of functions (scoring between 16 and 19 points); or

b. Interdunal wetlands between 0.1 and one acre.

4. **Category IV.** Category IV wetlands are those with the lowest levels of functions (scoring below 16 points) and are often heavily disturbed. These are wetlands that should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and also need to be protected.

C. **Illegal Modifications.** Wetland rating categories shall not change due to illegal modifications or alterations. A wetland's category shall be based on the pre-modification/alteration analysis of the wetland.

D. At the time of adoption of the critical area amendments to this Master Program, Ordinance 856, there were no identified Category I wetlands identified within the City. If this category of wetland is subsequently identified, any applicable standards may temporarily be used on an

interim basis by the Director based on Washington State guidance on protection of the identified type of resource until such time as permanent shoreline regulations can be established.

20.240.324 Wetlands – Development standards.

A. Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided for in this chapter.

B. Activities Allowed in Wetlands. The activities listed below are allowed in wetlands pursuant to SMC 20.240.040, Allowed activities, and subject to applicable permit approvals. These activities do not require submission of a critical area report, except where such activities result in a net loss of the shoreline ecological function provided by a wetland or wetland buffer. These activities include:

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing wetland.
2. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.
3. Drilling for utilities/utility corridors under a wetland, with entrance/exit portals located completely outside of the wetland buffer; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.
4. Enhancement of a wetland through the select removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand labor and handheld equipment unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. Not more than 500 square feet of area may be cleared, as calculated cumulatively over one year, on private property without a permit. All

removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds or the King County Noxious Weed List shall be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.

5. Permitted alteration to a legally constructed structure existing within a wetland or wetland buffer that does not increase the footprint of the development or hardscape or increase the impact to a wetland or wetland buffer, consistent with SMC 20.220.150.

C. **Category I Wetlands.** Development activities and uses that result in alteration of Category I wetlands and their associated buffers shall be prohibited subject to the shoreline variance provisions of SMC 20.220.040.

D. **Category II and III Wetlands.** Development activities and uses that result in alteration of Category II and III wetlands shall be prohibited subject to the shoreline variance provisions of SMC 20.220.040 and the following criteria:

1. The basic project proposed cannot reasonably be accomplished on another site or sites in the general region while still successfully avoiding or resulting in less adverse impact on a wetland;

2. All on-site alternative designs that would avoid or result in less adverse impact on a wetland or its buffer, such as a reduction to the size, scope, configuration, or density of the project are not feasible; and

3. Full compensation for the loss of acreage and functions and values of wetland and buffers due to unavoidable impacts shall be provided in compliance with the mitigation performance standards and requirements of this chapter.

E. **Category IV Wetlands, Except Small Hydrologically Isolated Wetlands.** Development activities and uses that result in unavoidable impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved critical area(s) report and compensatory mitigation plan, and only if the proposed activity is consistent with the purpose and intent of the SMA, this Master Program, and this chapter. Full compensation for the loss of

acreage and functions and values of wetland and buffers shall be provided in compliance with the mitigation performance standards and requirements of these regulations.

F. Small, Hydrologically Isolated Category IV Wetlands. The Director may allow small, hydrologically isolated Category IV wetlands to be exempt from the avoidance sequencing provisions of SMC 20.240.053 and subsection D of this section and allow alteration of such wetlands; provided, that a submitted critical area report and mitigation plan provides evidence that all of the following conditions are met:

1. The wetland is less than 1,000 square feet in area;
2. The wetland is a low quality Category IV wetland with a habitat score of less than three points in the adopted rating system;
3. The wetland does not contain habitat identified as essential for local populations of priority species identified by WDFW or species of local importance which are regulated as fish and wildlife habitat conservation areas in Chapter 20.240, Subchapter 3;
4. The wetland is not associated with riparian areas or buffers;
5. The wetland is not part of a wetland mosaic; and
6. A mitigation plan to replace lost wetland functions and values is developed, approved, and implemented consistent with SMC 20.240.350.

G. Subdivisions. The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:

1. Land that is located wholly within a wetland and/or its buffer may not be subdivided; and
2. Land that is located partially within a wetland and/or its buffer may be subdivided; provided, that an accessible and contiguous portion of each new lot is:
 - a. Located outside of the wetland and its buffer; and
 - b. Meets the minimum lot size requirements of SMC 20.50.020.

20.240.330 Wetlands – Required buffer areas.

A. Buffer Requirements. The standard buffer widths in Table 20.240.330(A)(1) have been established in accordance with the best available science. The buffer widths shall be determined based on the category of wetland and the habitat score as assigned by a qualified wetland professional using the Washington State Wetland Rating System for Western Washington.

1. The use of the standard buffer widths requires the implementation of the mitigation measures in Table 20.240.330(A)(2), where applicable to the development type, to minimize the impacts of the adjacent land uses.
2. If an applicant chooses not to apply the appropriate mitigation measures in Table 20.240.330(A)(2), then a 33 percent increase in the width of all buffers is required. For example, a 75-foot buffer with the mitigation measures would be a 100-foot buffer without them.
3. The standard buffer widths assume that the buffer is a relatively intact native plant community in the buffer zone adequate to protect the wetland functions and values at the time of the proposed activity. If the existing buffer is bare ground, sparsely vegetated, or vegetated with nonnative or invasive species that do not perform needed functions, then the applicant shall either develop and implement a wetland buffer restoration or enhancement plan to maintain the standard width to create the appropriate plant community or the buffer shall be widened to ensure that adequate functions of the buffer are provided.

Table 20.240.330(A)(1) Wetland Buffer Requirements

<u>Wetland Category</u>	<u>Buffer Width According to Habitat Score</u>			
	<u>Habitat Score of 3 – 4</u>	<u>Habitat Score of 5</u>	<u>Habitat Score of 6 – 7</u>	<u>Habitat Score of 8 – 9</u>
<u>Category I: Based on total score or Forested</u>	<u>75 ft</u>	<u>105 ft</u>	<u>165 ft</u>	<u>225 ft</u>
<u>Category I: Estuarine</u>	<u>150 ft (no change based on habitat scores)</u>			
<u>Category II: Based on total score</u>	<u>75 ft</u>	<u>105 ft</u>	<u>165 ft</u>	<u>225 ft</u>

Category III (all)	60 ft	105 ft	165 ft	225 ft
Category IV (all)	40 ft (no change based on habitat scores)			

Table 20.240.330(A)(2) Required Measures to Minimize Impacts to Wetlands
(Measures are required, where applicable to a specific proposal)

<u>Disturbance</u>	<u>Activities and Uses That Cause Disturbances</u>	<u>Required Measures to Minimize Impacts</u>
<u>Lights</u>	<ul style="list-style-type: none"> • <u>Parking lots</u> • <u>Warehouses</u> • <u>Manufacturing</u> • <u>Residential</u> 	<ul style="list-style-type: none"> • <u>Direct lights away from wetland.</u>
<u>Noise</u>	<ul style="list-style-type: none"> • <u>Manufacturing</u> • <u>Residential</u> 	<ul style="list-style-type: none"> • <u>Locate activity that generates noise away from wetland.</u> • <u>If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source.</u> • <u>For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10 ft heavily vegetated buffer strip immediately adjacent to the outer wetland buffer.</u>
<u>Toxic runoff*</u>	<ul style="list-style-type: none"> • <u>Parking lots</u> • <u>Roads</u> • <u>Manufacturing</u> • <u>Residential areas</u> • <u>Application of agricultural pesticides</u> • <u>Landscaping</u> 	<ul style="list-style-type: none"> • <u>Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered.</u> • <u>Establish covenants limiting use of pesticides and fertilizers within 150 ft of wetland.</u> • <u>Apply integrated pest management.</u>
<u>Stormwater runoff</u>	<ul style="list-style-type: none"> • <u>Parking lots</u> • <u>Roads</u> • <u>Manufacturing</u> 	<ul style="list-style-type: none"> • <u>Retrofit stormwater detention and treatment for roads and existing adjacent development.</u>

	<ul style="list-style-type: none"> • <u>Residential areas</u> • <u>Commercial</u> • <u>Landscaping</u> 	<ul style="list-style-type: none"> • <u>Prevent channelized flow from lawns that directly enters the buffer.</u> • <u>Use low intensity development techniques (per PSAT publication on LID techniques).</u>
<u>Change in water regime</u>	<ul style="list-style-type: none"> • <u>Impermeable surfaces</u> • <u>Lawns</u> • <u>Tilling</u> 	<ul style="list-style-type: none"> • <u>Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.</u>
<u>Pets and human disturbance</u>	<ul style="list-style-type: none"> • <u>Residential areas</u> 	<ul style="list-style-type: none"> • <u>Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion.</u> • <u>Place wetland and its buffer in a separate tract or protect with a conservation easement.</u>
<u>Dust</u>	<ul style="list-style-type: none"> • <u>Tilled fields</u> 	<ul style="list-style-type: none"> • <u>Use best management practices to control dust.</u>
<u>Disruption of corridors or connections</u>	-	<ul style="list-style-type: none"> • <u>Maintain connections to off-site areas that are undisturbed.</u> • <u>Restore corridors.</u>
<p>* <u>These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site. Additional mitigation measures may be required based on recommendation of a qualified professional, third party review, or State agency recommendations.</u></p>		

4. Increased Wetland Buffer Area Width. Buffer widths shall be increased, on a case-by-case basis as determined by the Director, when a larger buffer is necessary to protect the shoreline ecological functions provided by the wetland's functions and values. This determination shall be supported by a critical area report, prepared by a qualified professional at the applicant's expense, showing that it is reasonably related to protection of the functions and values of the wetland and the shoreline. The critical area report shall include, but not be limited to, the following criteria:

a. The wetland is used by a plant or animal species listed by the Federal government or the State as endangered, threatened, candidate, sensitive, monitored, or documented priority species or habitats, or the wetland is essential or outstanding habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or

b. The adjacent land has slopes greater than 15 percent and is susceptible to severe erosion, and erosion-control measures will not effectively prevent adverse wetland impacts; or

c. The adjacent land has minimal vegetative cover. In lieu of increasing the buffer width where existing buffer vegetation is inadequate to protect the wetland functions and values, development and implementation of a wetland buffer restoration/enhancement plan in accordance with SMC 20.240.350 may be substituted.

5. Buffer averaging to improve wetland functions and values may be permitted when all of the following conditions are met:

a. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or is a “dual-rated” wetland with a Category I area adjacent to a lower rated area;

b. The buffer is increased adjacent to the higher functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion as demonstrated by a critical areas report from a qualified wetland professional;

c. The total area of the buffer after averaging is equal to the area required without averaging; and

d. The buffer width is not reduced by more than 25 percent in any location.

6. Buffer averaging, through a shoreline variance consistent with 20.220.040, may be permitted when all of the following are met:

- a. There are no feasible alternatives to the site design that could be accomplished without buffer averaging;
- b. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated by a critical areas report from a qualified wetland professional;
- c. The total buffer area after averaging is equal to the area required without averaging; and
- d. The buffer at its narrowest point is never less than either three-fourths of the required width or 75 feet for Category I and II, 50 feet for Category III, and 25 feet for Category IV, whichever is greater.

B. Measurement of Wetland Buffers. All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland.

C. Buffers on Mitigation Sites. All mitigation sites shall have buffers consistent with the buffer requirements of this chapter. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.

D. Buffer Maintenance. Except as otherwise specified or allowed in accordance with this chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, removal of invasive nonnative weeds is required for the duration of the required monitoring period.

E. Impacts to Buffers. Requirements for the compensation for impacts to buffers are outlined in SMC 20.240.350.

F. Overlapping Critical Area Buffers. If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.

G. Allowed Wetland Buffer Uses. The following uses may be allowed within a wetland buffer in accordance with the review procedures of this chapter; provided such uses are not

prohibited by any other applicable law and such uses are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:

1. **Conservation and Restoration Activities.** Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
2. **Passive Recreation.** Passive recreation facilities designed and in accordance with an approved critical area report, including:
 - a. Walkways and trails; provided, that those pathways are limited to minor crossings having no adverse impact on water quality. Pathways should be generally parallel to the perimeter of the wetland, located only in the outer 25 percent of the wetland buffer area, and located to avoid removal of significant trees. Pathways should be limited to pervious surfaces no more than five feet in width for pedestrian use only. Raised boardwalks utilizing nontreated pilings may be acceptable;
 - b. Wildlife viewing structures.
3. Educational and scientific research activities.
4. Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way, provided, that the maintenance or repair does not increase the footprint or use of the facility or right-of-way.
5. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops, and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.
6. Drilling for utilities/utility corridors under a buffer, with entrance/exit portals located completely outside of the wetland buffer boundary; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.

7. Enhancement of a wetland through the select removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand labor and handheld equipment unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. Not more than 1,500 square feet of area may be cleared, as calculated cumulatively over one year, on private property without a permit. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds or the King County Noxious Weed List shall be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.

8. **Stormwater Management Facilities.** Stormwater management facilities are limited to stormwater dispersion outfalls, bioswales, and other low-impact facilities consistent with the adopted stormwater manual. Stormwater management facilities are not allowed in buffers of Category I or II wetlands. Facilities may be allowed within the outer 25 percent of the buffer of Category III or IV wetlands only; provided, that:

a. No other location is feasible; and

b. The location of such facilities will not degrade the functions or values of the wetland.

9. **Nonconforming Uses or Structures.** Repair and maintenance of nonconforming uses or structures, where legally established within the buffer, provided such uses or structures do not increase the degree of nonconformity, consistent with SMC 20.220.150.

10. **Development Proposals within Physically Separated and Functionally Isolated Wetland Buffers.** Consistent with the definition of “buffers” (SMC 20.20.012), areas that are functionally isolated and physically separated from wetland due to existing, legally established roadways, paved trails eight feet or more in width, or other legally established structures or paved areas eight feet or more in width that occur between the area in question and the wetland shall be considered physically isolated and functionally separated wetland buffers. Once determined by the Director, based on a submitted critical area report

to be a physically separated and functionally isolated wetland buffer, development proposals shall be allowed in these areas.

H. Signs and Fencing of Wetlands and Buffers.

1. Temporary Markers. The outer perimeter of the wetland buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary “clearing limits” fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the Director prior to the commencement of permitted activities during the preconstruction meeting required under SMC 20.50.330(E). This temporary marking and fencing shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.

2. Permanent Signs. As a condition of any permit or authorization issued pursuant to this chapter, the Director may require the applicant to install permanent signs along the boundary of a wetland or buffer, when recommended in a critical area report or otherwise required by the provisions of this chapter.

a. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or another nontreated material of equal durability. Signs shall be posted at an interval of one per lot or every 50 feet, whichever is less, and shall be maintained by the property owner in perpetuity. The signs shall be worded consistent with the text specified in SMC 20.240.110 or with alternative language approved by the Director.

b. The provisions of subsection (H)(2)(a) of this section may be modified as necessary to assure protection of sensitive features.

3. Fencing. Fencing installed as part of a proposed activity or as required in this subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat. Permanent fencing shall be required at the outer edge of the critical area buffer under the following circumstances; provided, that the Director may waive this requirement:

a. As part of any development proposal for subdivisions, short plats, multifamily, mixed use, and commercial development where the Director determines that such

fencing is necessary to protect the functions of the critical area; provided, that breaks in permanent fencing may be allowed for access to permitted buffer uses (subsection G of this section);

b. As part of development proposals for parks where the adjacent proposed use is active recreation and the Director determines that such fencing is necessary to protect the functions of the critical area;

c. When buffer averaging is part of a development proposal; or

d. At the Director’s discretion to protect the values and functions of a critical area as demonstrated in a critical area report. If found to be necessary, the Director shall condition any permit or authorization issued pursuant to this chapter to require the applicant to install a permanent fence at the edge of the habitat conservation area or buffer, when fencing will prevent future impacts to the habitat conservation area;

e. The applicant shall be required to install a permanent fence around the wetland buffer when domestic grazing animals, only as allowed under SMC 20.40.240, are present or may be introduced on site.

20.240.340 Wetlands – Critical area report requirements.

A. Report Required. If the Director determines that the site of a proposed development includes, is likely to include, or is adjacent to, a wetland, a wetland critical area report shall be required. Critical area report requirements for wetland areas are generally met through submission to the Director of one or more wetland critical area reports. In addition to the general critical area report requirements of SMC 20.240.080, critical area reports for wetlands shall meet the requirements of this section. Critical area reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.

B. Preparation by a Qualified Professional. Critical area reports for wetlands shall be prepared and signed by a qualified professional who is a certified wetland scientist or a noncertified wetland scientist with the minimum required experience, per SMC 20.20.042, in the field of wetland science and with experience preparing wetland delineation, impact assessments, and mitigation plans.

C. Third Party Review Required. Critical areas studies and reports on wetland areas shall be subject to third party review consistent with SMC 20.240.080(C) and in any of the additional following circumstances:

1. Compensatory mitigation is required for impacts to Category I, II, or III wetlands and or buffers; or
2. Compensatory mitigation is required for impacts to Category IV wetlands.

D. Minimum Report Contents for Wetlands. The written critical area report(s) and accompanying plan sheet(s) shall contain the following information, at a minimum:

1. The minimum report contents required per SMC 20.240.080(E);
2. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, site photos, etc.;
3. A description of the methodologies used to conduct the wetland delineations, ratings, or impact analyses including references;
4. **Site Plans.** A copy of the site plan sheet(s) for the project shall be included with the written report and shall include, at a minimum:
 - a. Maps (to scale) depicting delineated and surveyed wetland(s) and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; clearing and grading limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates); and
 - b. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project;
5. For each wetland identified on site and off site within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, per wetland ratings (SMC 20.240.320(B)); required buffers (SMC 20.240.330); hydrogeomorphic classification; wetland acreage based on a professional survey from the

field delineation (acres for on-site portion and entire wetland area including off-site portions); Cowardin classification of vegetation communities; habitat elements; soil conditions based on site assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of inlet/outlets (if inlets/outlets can be legally accessed), estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site;

6. A description of the proposed actions, including an estimation of acres of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative;

7. An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development;

8. A description of reasonable efforts made to apply mitigation sequencing pursuant to SMC 20.240.053(A) to avoid, minimize, and mitigate impacts to critical areas and a discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land-use activity;

9. A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions; and

10. An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.

E. Additional Information. When appropriate due to the proposed impacts or the project area conditions, the Director may also require the critical area report to include:

1. Where impacts are proposed, mitigation plans consistent with the requirements of SMC 20.240.082 and the wetland mitigation performance standards and requirements of SMC 20.240.350;

2. A request for consultation with WDFW, the Department of Ecology, local Native American Indian tribes, and/or other appropriate agency;
3. Copies of the joint aquatic resource permit application (JARPA) and related approvals, such as a hydraulic project approval (HPA) from the DFW, when applicable to the project; and
4. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

20.240.350 Wetlands – Compensatory mitigation performance standards and requirements.

A. Requirements for Compensatory Mitigation.

1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater shoreline ecological and biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1), (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised).
2. Mitigation ratios shall be consistent with subsection E of this section.
3. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft” (Department of Ecology Publication No. 10-06-011, February 2011, or as revised) consistent with subsection E of this section.

B. Compensating for Lost or Impacted Functions. Compensatory mitigation shall address the shoreline ecological functions and the wetland or wetland buffer functions and values affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions and values. The goal shall be for the compensatory mitigation to provide similar shoreline ecological functions and wetland functions and values as those lost, except when either:

1. The lost wetland provides minimal functions and values, and the proposed compensatory mitigation action(s) will provide equal or greater functions and values or

will provide functions and values shown to be limiting within a watershed through a formal Washington State watershed assessment plan or protocol; or

2. Out-of-kind replacement of wetland type or functions and values will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.

C. Preference of Mitigation Actions. Methods to achieve compensation for wetland functions and values shall be approached in the following order of preference:

1. **Restoration.** Restoration of wetlands.

2. **Creation.** Creation (establishment) of wetlands on disturbed upland sites, such as those with vegetative cover consisting primarily of nonnative species. This should be attempted only when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive to the wetland community that is anticipated in the design.

3. **Enhancement.** Enhancement of significantly degraded wetlands in combination with restoration or creation. Enhancement alone will result in a loss of wetland acreage and is less effective at replacing the functions and values lost. Enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

4. **Preservation.** Preservation of high-quality, at-risk wetlands as compensation is generally acceptable when done in combination with restoration, creation, or enhancement; provided, that a minimum of 1:1 acreage replacement is provided by reestablishment or creation. Preservation of high-quality, at-risk wetlands and habitat may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

a. Wetland impacts will not have a significant adverse impact on habitat for listed fish, or other ESA-listed species;

b. There is no net loss of habitat functions within the watershed or basin;

- c. Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost;
- d. The impact area is small (generally less than one-half acre) and/or impacts are occurring to a low-functioning system (Category III or IV wetland); and
- e. All preservation sites shall include buffer areas adequate to protect the habitat and its functions from encroachment and degradation.

D. Type and Location of Compensatory Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternative approach, compensatory mitigation for ecological functions shall be either in kind and on site, or in kind and within the same stream reach, sub-basin, or drift cell (if estuarine wetlands are impacted). Compensatory mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration, except when all of the following apply:

- 1. There are no reasonable opportunities on site or within the sub-drainage basin (e.g., on-site options would require elimination of high-functioning upland habitat), or opportunities on site or within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include:
 - a. Anticipated replacement ratios for wetland mitigation;
 - b. Buffer conditions and proposed widths;
 - c. Available water to maintain anticipated hydrogeomorphic classes of wetlands when restored; and
 - d. Proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);
- 2. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland;

3. Off-site locations shall be in the same sub-drainage basin, unless watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site; and

4. The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland refers to a compensation wetland (e.g., created or enhanced) that does not match the type of existing wetland that would be found in the geomorphic setting of the site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting). Likewise, it should not provide exaggerated morphology or require a berm or other engineered structures to hold back water. For example, excavating a permanently inundated pond in an existing, seasonally saturated or inundated wetland is one example of an enhancement project that could result in an atypical wetland. Another example would be excavating depressions in an existing wetland on a slope, which would require the construction of berms to hold the water.

E. Wetland Mitigation Ratios¹.

Table 20.240.350(G). Wetland mitigation ratios apply when impacts to wetlands cannot be avoided or are otherwise allowed consistent with the provisions of this chapter.

<u>Category and Type of Wetland²</u>	<u>Creation or Reestablishment (Area – in square feet)</u>	<u>Rehabilitation (Area – in square feet)</u>	<u>Enhancement (Area – in square feet)</u>	<u>Preservation (Area – in square feet)</u>
<u>Category I: Based on total score for functions</u>	<u>4:1</u>	<u>8:1</u>	<u>16:1</u>	<u>20:1</u>
<u>Category I: Mature forested</u>	<u>6:1</u>	<u>12:1</u>	<u>24:1</u>	<u>24:1</u>
<u>Category I: Estuarine</u>	<u>Case-by-case</u>	<u>6:1</u>	<u>Case-by-case</u>	<u>Case-by-case</u>

<u>Category II: Based on total score for functions</u>	<u>3:1</u>	<u>6:1</u>	<u>12:1</u>	<u>20:1</u>
<u>Category III (all)</u>	<u>2:1</u>	<u>4:1</u>	<u>8:1</u>	<u>15:1</u>
<u>Category IV (all)</u>	<u>1.5:1</u>	<u>3:1</u>	<u>6:1</u>	<u>10:1</u>

¹ Ratios for rehabilitation and enhancement may be reduced when combined with 1:1 replacement through creation or reestablishment. See Table 1a or 1b, Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance – Version 1 (Department of Ecology Publication No. 06-06-011a, March 2006, or as revised).

² Category and rating of wetland as determined consistent with SMC 20.240.320(B).

F. Buffer Mitigation Ratios. Impacts to buffers shall be mitigated at a 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.

G. Mitigation Performance Standards. The performance standards in this section shall be incorporated into mitigation plans submitted to the City for impacts to wetlands. The following performance standards shall apply to any mitigations proposed within Category I, II, III and IV wetlands and their buffers. Modifications to these performance standards consistent with the guidance in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised) may be considered for approval by the Director as alternatives to the following standards:

1. Plants indigenous to the region (not introduced or foreign species) shall be used.
2. Plant selection shall be consistent with the existing or projected hydrologic regime, including base water levels and stormwater event fluctuations.
3. Plants should be commercially available or available from local sources.
4. Plant species high in food and cover value for fish and wildlife shall be used.

5. Mostly perennial species should be planted.
6. Committing significant areas of the site to species that have questionable potential for successful establishment shall be avoided.
7. Plant selection shall be approved by a qualified professional.
8. The following standards shall apply to wetland design and construction:
 - a. Water depth shall not exceed six and one-half feet (two meters).
 - b. The grade or slope that water flows through the wetland shall not exceed six percent.
 - c. Slopes within the wetland basin and the buffer zone shall not be steeper than 3:1 (horizontal to vertical).
 - d. The wetland (excluding the buffer area) should not contain more than 60 percent open water as measured at the seasonal high water mark.
9. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials.
10. Planting densities and placement of plants should be determined by a qualified professional and shown on the design plans.
11. The planting plan shall be approved by the City.
12. Stockpiling soil and construction materials should be confined to upland areas and contract specifications should limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the City.
13. Planting instructions shall be submitted which describe placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock.
14. Controlled release fertilizer shall be applied (if required) at the time of planting and afterward only as plant conditions warrant as determined during the monitoring process.

15. An irrigation system shall be installed, if necessary, for the initial establishment period.

16. All construction specifications and methods shall be approved by a qualified professional and the City.

17. Construction management shall be provided by a qualified professional. Ongoing work on site shall be inspected by the City.

H. Compensatory Mitigation Plan. When a project involves wetland and/or buffer impacts, a compensatory mitigation plan shall be included as part of the required critical area report. Compensatory wetland mitigation plans shall meet the minimum requirements SMC 20.240.082 and demonstrate compliance with SMC 20.240.053. Full guidance can be found in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised). The mitigation plan shall meet the following additional standards:

1. Description of the existing wetland and buffer areas proposed to be impacted. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on wetland ratings (SMC 20.240.320(B));

2. Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions. Estimate future conditions in this location if the compensation actions are not undertaken (i.e., how would this site progress through natural succession);

3. A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands;

4. A description of the proposed mitigation construction activities, construction/installation notes, and timing of activities;
5. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands);
6. Proof of establishment of notice on title for the wetlands and buffers on the project site, including the compensatory mitigation areas; and
7. The scaled plan sheets for the compensatory mitigation shall contain, at a minimum:
 - a. Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions;
 - b. Existing topography, ground-processed, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Also existing cross-sections of on-site wetland areas that are proposed to be impacted and cross-section(s) (estimated one-foot intervals) for the proposed areas of wetland or buffer compensation;
 - c. Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Also, illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions;
 - d. Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes;
 - e. Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this chapter;
 - f. A plant schedule for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed,

spacing of plants, typical clustering patterns, typical plant installation details and notes, total number of each species by community type, timing of installation; and

g. Performance standards (measurable standards reflective of years post-installation) for upland and wetland communities, monitoring plan, contingency plan, and maintenance schedule, and actions. Standards for success shall be established based on the performance standards identified and the functions and values being mitigated based on the guidance in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised).

A-4 Geologic Hazards Standards

Revised Critical Areas section allowances for development in stream and wetland buffers that are separated or isolated from the development..

20.240.224 Geologic hazards – Development standards.

E. Alteration of Very High Risk Landslide Hazard Areas. Alterations of a very high risk landslide hazard area and/or buffer may only occur for activities for which a critical area report with a hazards analysis is submitted and certifies that:

1. The development will not increase surface water discharge or sedimentation on site or to adjacent properties beyond pre-development conditions;
2. The development will not decrease slope stability on the site or on adjacent properties;
3. Such alterations will meet other critical areas regulations; and
4. The design criteria in subsection F of this section are met.

F. Design Criteria for Alteration of Very High Risk Landslide Hazard Areas.

Development within a very high risk landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative project design provides greater short- and long-term slope stability while meeting all other provisions of this chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design criteria are:

1. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Proposed alteration of natural slopes, that does not include structures, shall not decrease the factor of safety for landslide occurrences below the limits of 1.3 for static conditions and 1.0 for seismic. Where the existing conditions are below these limits, the proposed development shall increase the factor of safety to these limits or will not be permitted. Analysis of dynamic conditions shall be based on the seismic event as established by the current version of the International Building Code;

2. New structures and improvements shall be clustered to avoid geologic hazard areas and other critical areas;
3. New structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;
4. New structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
5. The proposed development shall not result in greater risk of the hazard or a need for increased buffers on neighboring properties;
6. Where the existing natural slope area cannot be retained undisturbed with native vegetation, the use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and
7. Development shall be designed to minimize impervious lot coverage and preserve native vegetation and trees to the maximum extent practicable.

G. Additional Requirements for Alteration of Very High Risk Hazard Landslide Areas.

1. Prior to application, the applicant shall meet the requirements of and conduct a neighborhood meeting consistent with SMC 20.30.090. The notification area shall be limited to:
 - a. All property owners whose properties adjoin the subject property; and
 - b. Properties that include part of the subject property's very high risk landslide hazard area and the standard 50-foot buffer, but not to exceed a maximum of 200 feet from the project clearing limits.
2. Prior to permit issuance, the property owner shall sign and record on title, at the owner's sole expense, a covenant in a form acceptable to the City, which:
 - a. Acknowledges and accepts the risks of development in the landslide hazard area;

b. Waives any rights to claims against the City;

c. Indemnifies and holds harmless the City against claims, losses, and damages;

d. Informs subsequent owners of the property of the risks and the covenant; and

e. Advisability of obtaining added insurance.

3. Prior to permit issuance, the piling and excavation contractors shall submit insurance bonding documentation that includes coverage for subsidence and underground property damage, listing the City as an additional insured. The Director may require adequate bonds and/or insurance to cover potential claims for property damage that may arise from or be related to the following:

a. Excavation or fill within a landslide-prone area when the depth of the proposed excavation exceeds four feet and the bottom of the proposed excavation is below the 100 percent slope line (45 degrees from a horizontal line) from the property line; or

b. In other circumstances where the Director determines that there is a potential for significant harm to any type of critical area or a critical area buffer during the construction process.

4. If the Building Official has reasonable grounds to believe that an emergency exists because significant changes in geologic conditions at a project site or in the surrounding area may have occurred since a permit was issued, increasing the risk of damage to the proposed development, to neighboring properties, or to nearby surface waters, the building official may, by letter or other reasonable means of notification, suspend the permit until the applicant has submitted a letter of certification. The letter of certification shall be based on such factors as the presence of known slides, indications of changed conditions at the site or the surrounding area, or other indications of unstable soils and meet the following requirements:

a. The letter of certification shall be from the current project qualified professional geotechnical engineer of record stating that a qualified professional geotechnical engineer has inspected the site and area surrounding the proposed development within the 60 days preceding submittal of the letter; and that:

i. In the project geotechnical engineer’s professional opinion no significant changes in conditions at the site or surrounding area have occurred that render invalid or out-of-date the analysis and recommendations contained in the technical reports and other application materials previously submitted to the City as part of the application for the permit; or that

ii. In the project geotechnical engineer’s professional opinion, changes in conditions at the site or surrounding area have occurred that require revision to project criteria and that all technical reports and any necessary revised drawings that account for the changed conditions have been prepared and submitted.

5. The letter of certification and any required revisions shall be reviewed and approved by the City’s third party qualified professional, at the applicant’s expense, before the Building Official may allow work to continue under the permit.

20.240.230 Geologic hazard areas – Required buffer areas.

A. Buffers for geologic hazard areas shall be maintained as undisturbed native vegetation consistent with SMC 20.240.090. Building and other improvement setbacks will be required in addition to buffers as recommended by the qualified professional to allow for landscaping, access around structures for maintenance, and location of stormwater facilities at safe distances from geologic hazard areas where native vegetation is not necessary to reduce the risk of the hazard.

B. Required buffer widths for geologic hazard areas shall reflect the sensitivity of the hazard area and the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the area.

C. In determining the appropriate buffer width, the City shall consider the recommendations contained in a geotechnical critical area report required by these regulations.

D. For moderate to high risk landslide hazard areas, the qualified professional shall recommend whether buffers should be required and the width of those buffers, as well as recommending any additional setbacks for buildings and stormwater facilities adequate to certify no increase in the risk of the hazard.

E. For very high risk landslide hazard areas, the standard buffer shall be 50 feet from all edges of the landslide hazard area. Larger buffers may be required as needed to eliminate or minimize the risk to people and property based on a geotechnical critical area report. The standard buffer may be reduced when geotechnical studies demonstrate, and the qualified professional certifies, that the reduction will not increase the risk of hazard to people or property, on or off site; however, the minimum buffer shall be 15 feet.

F. Landslide hazard areas and associated buffers shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the City. The location and limitations associated with the critical landslide hazard and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the King County Recorder's Office.

20.240.240 Geologic hazards – Critical area report requirements.

A. Report Required. If the Director determines that the site of a proposed development includes, is likely to include, or is adjacent to a geologic hazard area, a critical area report shall be required, at the applicant's expense. Critical area report requirements for geologic hazard areas are met through submission to the Director of one or more geologic hazard critical area reports (also referred to as geotech or geotechnical engineering reports). In addition to the general critical areas report requirements of SMC 20.240.080, critical areas reports for geologic hazard areas shall meet the requirements of this section. Critical areas reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.

B. Preparation by a Qualified Professional. Critical areas reports for potential geologic hazard areas shall be prepared, stamped, and signed by a qualified geotechnical engineer or engineering geologist licensed in the State of Washington, with minimum required experience, per SMC 20.20.042, analyzing geologic, hydrologic, and ground water flow systems, and who has experience preparing reports for the relevant type of hazard. If mitigation measures are necessary, the report detailing the mitigation measures and design of the mitigation shall be prepared by a qualified professional with experience stabilizing geologic hazard areas with similar geotechnical properties and by a qualified vegetation ecologist, landscape architect, or

arborist with experience designing and monitoring vegetative stabilization of geologic hazard areas.

C. Third Party Review Required. Critical areas studies and reports on geologically hazardous areas will be subject to third party review at the owner's sole expense as provided in SMC 20.240.080(C) and in the following circumstances:

1. A buffer reduction or alteration of the critical area or buffer is proposed for a very high risk landslide hazard areas.

D. Minimum Report Contents for Geologic Hazard Areas. A critical area report for geologic hazard areas shall include a field investigation, contain an assessment of whether or not each type of geologic hazard identified in SMC 20.240.210 is present or not present, and determine if the proposed development of the site will increase the risk of the hazard on or off site. The written critical area report(s) and accompanying plan sheet(s) shall contain the following information at a minimum:

1. The minimum report contents required per SMC 20.240.080(E);
2. Documentation of any fieldwork performed on the site, including field data sheets for soils, test pit locations, baseline hydrologic data, site photos, etc.;
3. A description of the methodologies used to conduct the geologic hazard areas delineations, classifications, hazards assessments and/or analyses of the proposal impacts including references;
- 4. Site and Construction Plans.** The report shall include a copy of the site plans for the proposal, drawn at an engineering scale, showing:
 - a. The type and extent of geologic hazard areas, any other critical areas, and buffers on, adjacent to, off site within 200 feet of, or that are likely to impact or be affected by the proposal;
 - b. Proposed development, including the location of existing and proposed structures, fill, significant trees to be removed, vegetation to be removed, storage of materials, and drainage facilities;

- c. The topography, in two-foot contours, of the project area and all hazard areas addressed in the report;
- d. Height of slope, slope gradient, and cross-section of the project area;
- e. The location of springs, seeps, or other surface expressions of ground water on or off site within 200 feet of the project area or that have the potential to affect or be affected by the proposal;
- f. The location and description of surface water on or off site within 200 feet of the project area or that has the potential to be affected by the proposal; and
- g. Clearing limits, including required tree protection consistent with SMC 20.50.370.

5. Stormwater Pollution Prevention Plan (SWPPP). For any development proposed with land-disturbing activities on a site containing a geologic hazard area, a stormwater pollution prevention plan (also known as an erosion and sediment control plan) shall be required. The SWPPP, in compliance with the requirements of Chapter 13.10 SMC, shall be included in the critical area report or be referenced if it is prepared separately.

6. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted classification systems in use in the region. The assessment shall include, but not be limited to:

- a. A detailed overview of the field investigations, published data, and references; data and conclusions from past assessments of the site; and site-specific measurements, tests, investigations, or studies that support the identification of geologically hazardous areas; and
- b. A summary of the existing site conditions, including:
 - i. Surface topography, existing features, and vegetation found in the project area and in all hazard areas addressed in the report;

ii. Surface and subsurface geology and soils to sufficient depth based on data from site-specific explorations;

iii. Geologic cross-section(s) displaying the critical design conditions;

iv. Surface and ground water conditions; and

c. A description of the vulnerability of the site to seismic and other geologic events.

7. Analysis of Proposal. The report shall contain a hazards analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its potential impact upon the identified hazard area(s), the subject property, and affected adjacent properties. The hazards analysis component of the critical areas report shall include the following based on the type(s) of geologic hazard areas identified:

a. Recommendations for the minimum buffer consistent with SMC 20.240.230 and recommended minimum drainage and building setbacks from any geologic hazard based upon the geotechnical analysis. Buffers shall be maintained consistent with SMC 20.240.090; however, the qualified professional may recommend additional setbacks for drainage facilities or structures which do not have to be maintained as undisturbed native vegetation; and

b. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion.

E. Additional Technical Information Requirements for Landslide Hazard Areas. The technical information required in a critical area report for a project within a landslide hazard area shall also include the following:

1. An estimate of the present stability of the subject property, the stability of the subject property during construction, the stability of the subject property after all development activities are completed, and a discussion of the relative risks and slide potential relating to adjacent properties during each stage of development, including the effect construction and placement of structures, clearing, grading, and removal of vegetation will have on the slope over the estimated life of the structure;

2. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event;
3. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on downslope properties;
4. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
5. Compliance with the requirements of SMC 20.240.224(D) for alterations proposed in moderate to high risk landslide hazard areas;
6. Compliance with the requirements of SMC 20.240.224(E) through (G) for alterations proposed in very high risk landslide hazard areas;
7. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities for bearing and lateral loads, installation considerations, and estimates of settlement performance;
8. Recommendations for drainage and subdrainage improvements;
9. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and
10. Mitigation of adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate.

A-5 General Critical Areas Standards

Revised Critical Areas section critical areas reports and review process.

20.240.080 Critical area report – Requirements.

A. Report Required. If uses, activities, or developments are proposed within, adjacent to, or are likely to impact critical areas or their buffers, an applicant shall provide site-specific information and analysis in the form of critical area report(s) as required in this chapter.

Critical area reports are required in order to identify the presence, extent, and classification/rating of potential critical areas, as well as to analyze, assess, and mitigate the potential adverse impact to or risk from critical areas for a development project. Critical area reports shall use standards for best available science in SMC 20.240.060. Critical area reports for two or more types of critical areas shall meet the report requirements for each type of critical area. The expense of preparing the critical area report(s) shall be borne by the applicant. This provision is not intended to expand or limit an applicant's other obligations under WAC 197-11-100, as amended from time to time.

B. Preparation by Qualified Professional. Critical area report(s) shall be prepared by qualified professional(s) as defined in SMC 20.20.042, with the required training and experience specific to the type(s) of critical area(s) present consistent with the requirements of SMC 20.240.240, 20.240.290, and 20.240.340. Proof of licensing, credentials, and resume of the qualified professional(s) preparing the report shall be submitted for review by the City to determine if the minimum qualifications are met.

C. Third Party Review of Critical Area Reports. Review of required critical area reports by a qualified professional under contract with or employed by the City will be required by the Director at the applicant's expense in any of the following circumstances:

1. The project requires a shoreline variance application or a shoreline conditional use permit; or
2. Third party review is specifically required by the provisions of this chapter for the critical area(s) or critical area buffer(s) potentially being impacted; or
3. When the Director determines such services are necessary to demonstrate compliance with the standards and guidelines of this chapter.

D. Critical Area Report Types or Sections. Critical area reports may be met in stages through multiple reports or combined in one report. A critical area report shall include one or more of the following sections or report types unless exempted by the Director based on the extent of the potential critical area impacts. The scope and location of the proposed project will determine which report(s) alone or combined are sufficient to meet the critical area report requirements for the impacted critical area type(s). The typical sequence of required sections or reports that will fulfill the requirements of this section include:

1. **Reconnaissance.** The existence, general location, and type of critical areas in the vicinity of a project site (off site within 300 feet for wetlands and fish and wildlife habitat conservation areas and off site within 200 feet for geologic hazards, shorelines, floodplains, and aquifer recharge areas) of a project site (if allowed by the adjoining property owners). Determination of whether the project will adversely impact or be at risk from the potential critical areas based on maximum potential buffers and possible application of SMC 20.240.220(A)(3), 20.240.280(D)(7) or 20.240.330(G)(10) should be addressed;

2. **Delineation.** The extent, boundaries, rating or classification, and applicable standard buffers of critical areas where the project area could potentially impact the critical area or its buffer including an assessment of the characteristics of or functions and values of the critical area and buffers identified;

3. **Analysis.** The proposal and impact assessment report documenting the potential project impacts to the critical area and buffers including a discussion of the efforts taken to avoid, minimize, and reduce potential impacts to those areas;

4. **Mitigation.** The measures that prevent or compensate for the potential impacts of the project designed to meet the requirements of this chapter, in SMC 20.240.082, Mitigation plan requirements, and the standards for the specific critical areas impacted. Mitigation includes, but is not limited to, adjustments to required buffer sizes, best practices to minimize impacts, and critical area or buffer enhancement, restoration, or preservation plans. Mitigation plans include habitat management plans, revegetation, or replanting plans, and restoration plans;

5. **Maintenance and Monitoring.** The goals of the mitigation proposed, performance standards for success, monitoring methods and reporting schedule, maintenance methods and schedule, and contingency actions. Maintenance and monitoring plans shall be consistent with the mitigation performance standards and requirements of this chapter, including SMC 20.240.250, 20.240.300, and 20.240.350.

E. **Minimum Report Contents.** At a minimum, critical area reports shall contain the following:

1. The name and contact information of the applicant;
2. Adequate information to determine compliance with the requirements of the critical area regulations, this chapter, including critical area report, impact and hazard assessment, and mitigation requirements specific to each critical area type, as indicated in the corresponding sections of this chapter;
3. The dates, names, and qualifications of the qualified professional(s) preparing the report and documentation of any fieldwork performed on the site;
4. A description of the proposal, proposal location including address and parcel number(s), and a vicinity map for the project;
5. Identification of the development permit(s) requested and all other local, State, and/or Federal critical area-related permits required for the project;
6. A copy of the site plan for the development proposal including:
 - a. A map to standard engineering scale depicting critical areas, buffers, the development proposal, and any areas to be altered. In addition to plan size site plans, a legible, reduced (eight and one-half inches by 11 inches) copy will be required if noticing is required for the project; and
 - b. A scaled depiction and description of the proposed stormwater pollution prevention plan, consistent with the adopted stormwater manual, for the development and consideration of impacts to critical areas due to drainage alterations;

7. Identification and characterization of all critical areas, wetlands, water bodies, shorelines, and buffers within the vicinity of the proposed project area (off site within 300 feet for wetlands and fish and wildlife habitat conservation areas and off site within 200 feet for geologic hazards, shorelines, floodplains, and aquifer recharge areas);

8. A statement specifying the accuracy of the report and all assumptions made and relied upon;

9. A description of the methodologies used to conduct the critical areas investigation, including references;

10. An assessment of the probable impacts to the critical areas resulting from the proposed development of the site based upon identified findings;

11. A description of reasonable efforts made to apply mitigation sequencing pursuant to SMC 20.240.053, Mitigation requirements, to avoid, minimize, and mitigate impacts to critical areas; and

12. Plans for mitigation required to offset any critical areas impacts, in accordance with SMC 20.240.082, Mitigation plan requirements, and the corresponding mitigation performance standards sections of this chapter, including a discussion of the applicable development standards and cost estimates for determination of financial guarantee requirements.

F. Existing Reports. Unless otherwise provided, a critical areas report may incorporate, be supplemented by, or composed of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the Director. At the discretion of the Director, reports previously compiled or submitted as part of a proposal for development may be used as a critical areas report to the extent that the requirements of this section and the report requirements for each specific critical area type are met. Critical areas reports shall be considered valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary. Supplemental critical area report(s) may be required to provide information and analysis to address changes to the project scope and potential impacts or to changes to applicable regulations that have been made subsequent to existing, valid critical area reports.

G. Modifications to Report Requirements.

1. Limitations to Study Area. The Director may limit the required geographic area of the critical areas report as appropriate if:

- a. The applicant, with assistance from the City, cannot obtain permission to access properties adjacent to the project area; or
- b. The proposed activity will affect only a limited part of the subject site.

2. Modifications to Required Contents. The applicant may consult with the Director prior to or during preparation of the critical areas report to obtain approval of modifications to the required contents of the report where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation. In some cases, such as when it is determined that no geologic hazard area is present, a full report may not be necessary to determine compliance with the critical area regulations, this chapter, and in those cases a letter or reconnaissance only report may be required.

3. Additional Information Requirements. The Director may require additional information to be included in the critical areas report when determined to be necessary to the review of the proposed activity in accordance with this chapter. Additional information that may be required includes, but is not limited to:

- a. Historical data, including original and subsequent mapping, aerial photographs, data compilations and summaries, and available reports and records relating to the site or past operations at the site;
- b. Grading and drainage plans; and
- c. Information specific to the type, location, and nature of the critical area.

20.240.082 Mitigation plan requirements.

When mitigation is required, the applicant shall submit for approval by the City a mitigation plan as part of the critical area report. Mitigation plans shall meet the minimum requirements of SMC 20.240.080 and the applicable mitigation performance standards and requirements for

the impacted type(s) of critical area(s) and buffer(s), including but not limited to SMC 20.240.250, 20.240.300, and 20.240.350. When the mitigation plan is submitted separately from other types or sections of the required critical area report(s), the mitigation plan shall meet the minimum content requirements of SMC 20.240.080(E) by inclusion or reference to other existing report(s). The mitigation plan shall include, at a minimum:

A. Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the mitigation proposed and including:

1. 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 shoreline ecological functions; and dates for beginning and completion of site compensation construction activities. The goals and objectives shall be related to the shoreline ecological functions provided by the impacted critical area; and
2. A review of the best available science supporting the proposed mitigation and a description of the report author’s experience to date in restoring or creating the type of critical area proposed.

B. Performance Standards. The mitigation plan shall include measurable specific criteria for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained at the end of the required monitoring period and whether or not the requirements of this chapter, this Master Program, and the SMA have been met.

C. Detailed Construction Plans. The mitigation plan shall include written specifications and descriptions of the mitigation proposed, such as:

1. The proposed construction sequence, timing, and duration;
2. Site plans showing grading and excavation details with minimum two-foot contour intervals;
3. Erosion and sediment control features;

4. A planting plan specifying plant species, quantities, locations, size, spacing, and density; and

5. Measures to protect and maintain plants until established.

These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome.

D. Monitoring Program and Contingency Plan.

1. A monitoring program shall be included in the mitigation plan and implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives of the mitigation plan are being met.

2. A contingency plan shall be established for indemnity in the event that the mitigation project is inadequate or fails. Contingency plans include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met. Corrective measures will be required by the City when the qualified professional indicates, in a monitoring report, that the contingency actions are needed to ensure project success by the end of the monitoring period. A performance and maintenance bond, or other acceptable financial guarantee, is required to ensure the applicant's compliance with the terms of the mitigation agreement consistent with SMC 20.240.120, Financial guarantee requirements.

3. Monitoring programs prepared to comply with this section shall include, at a minimum, the following requirements:

a. Best available scientific procedures shall be used to establish the success or failure of the mitigation project. A protocol outlining the schedule for site monitoring (for example, monitoring shall occur in years zero (as-built), one, three, and five after site construction), and how the monitoring data will be evaluated to determine if the performance standards are being met.

b. For vegetation determinations, permanent sampling points shall be established.

c. Vegetative success shall, at a minimum, equal 80 percent survival of planted trees and shrubs and 80 percent cover of desirable understory or emergent plant species at the end of the required monitoring period. Alternative standards for vegetative success, including (but not limited to) minimum survival standards following the first growing season, may be required after consideration of recommendations provided in a critical area report or as otherwise required by the provisions of this chapter.

d. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the mitigation project. Monitoring reports on the current status of the mitigation project shall be submitted, consistent with subsection E of this section, to the City on the schedule identified in the monitoring plan, but not less than every other year. The reports are to be prepared by a qualified professional and reviewed by the City, or a qualified professional retained by the City, and should include monitoring information on wildlife, vegetation, water quality, water flow, stormwater storage and conveyance, and existing or potential degradation, as applicable.

e. Monitoring programs shall be established for a period necessary to establish that performance standards have been met, but not for less than a minimum of five years without approval from the Director.

f. If necessary, failures in the mitigation project shall be corrected.

g. Dead or undesirable vegetation shall be replaced with appropriate plantings.

h. Damage caused by erosion, settling, or other geomorphological processes shall be repaired.

i. The mitigation project shall be redesigned (if necessary) and the new design shall be implemented and monitored, as in subsection (D)(3)(d) of this section.

j. Correction procedures shall be approved by a qualified professional and the City.

k. If the mitigation goals are not obtained within the initial monitoring period, the applicant remains responsible for restoration of the impacted shoreline ecological

functions provided by the critical areas or hazard risk reduction until the mitigation goals agreed to in the mitigation plan are achieved.

E. **Monitoring Reports.** Monitoring reports shall be submitted to the City consistent with the approved monitoring plan.

1. The as-built report, required prior to final inspection, shall, at a minimum, include documentation of the following to establish the baseline for monitoring:

a. Departures from the original approved plans;

b. Construction supervision provided by the qualified professional;

c. Approved project goals and performance standards;

d. Baseline data for monitoring per the approved monitoring methods;

e. Photos from established photo points; and

f. A site plan showing final mitigation as constructed or installed, monitoring points, and photo points.

2. Subsequent monitoring reports shall, at a minimum, include:

a. Monitoring visit observations, documentation, and analysis of monitoring data collected;

b. Photos from photo points;

c. Determination whether performance standards are being met; and

d. Maintenance and/or contingency action recommendations to ensure success of the project at the end of the monitoring period.

3. The applicant shall be responsible for the cost (at the current hourly rate) of review of monitoring reports and site inspections during the monitoring period, which are completed by the City or a qualified professional under contract with or employed by the City.

F. Cost Estimates. The mitigation plan shall include cost estimates that will be used by the City to calculate the amounts of financial guarantees, if necessary, to ensure that the mitigation plan is fully implemented. Financial guarantees ensuring fulfillment of the mitigation project, monitoring program, and any contingency measures shall be posted in accordance with SMC 20.240.120, Financial guarantee requirements.

G. Approved Mitigation Projects – Signature. On completion of construction, an as-built report for any approved mitigation project shall be prepared and signed off by the applicant’s qualified professional and approved by the City. Signature of the qualified professional on the required as-built report and approval by the City will indicate that the construction has been completed as planned.

Appendix C

Proposed Revisions to SMC Language in Legislative Format

SMC 20.200 Shoreline Master Plan

SMC 20.210 SMP Definitions

SMC 20.220 SMP Administrative Procedures

SMC 20.230 SMP Shoreline Policies and Regulations

SMC 20.240 SMP Critical Areas

SMC 13.12 Floodplain Management

SMC 20.80 [Citywide] Critical Areas

Attachment B Appendix C – Proposed revisions to SMC language in legislative format

Division II.

Shoreline Master Plan rogram

Chapter 20.200

Shoreline Master Plan rogram

Sections:

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20.200.020 Authority.

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Subchapter 1. Goals and Objectives

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20.200.060 Administrator.

20.200.070 Applicability.

20.200.080 Master Program review and update.

20.200.090 Amendments to Master Program.

20.200.010 Title.

This ~~chapter~~title shall be known as the City's Shoreline Master Program, hereafter referred to as the Master Program.

20.200.020 Authority.

The Master Program is adopted in accordance with ~~the~~Washington State's Shoreline Management Act, ~~c~~(Chapter 90.58 RCW, hereinafter referred to as the SMA,) and the ~~State~~master program shoreline guidelines adopted by the State in ~~(C~~chapter 173-26 WAC).

Where these regulations require that public access be provided, the requirement shall be construed to be limited to the extent of the lawful and constitutional authority of the City of Shoreline (hereinafter referred to as the City) to require public access or to require the easement, fee ownership or interest requested.

20.200.025 Liberal Construction.

As provided in the SMA, this Master Program shall be liberally construed to give full effect to the purposes, goals, objectives, and policies for which the SMA and this Master Program were enacted.

**Subchapter 1.
Goals and Objectives**

20.200.030 Purpose.

The purpose of this Master Program is to:

- Promote the public health, safety, and general welfare of the community;
- Manage shorelines in a positive, effective, and equitable manner;
- Achieve no net loss to the ecological functions of the City's shorelines;
- Assume and carry out the responsibilities established by the ~~Shoreline Management Act~~ (SMA);
- Adopt and foster the policies contained in ~~Chapter 90.58 RCW, the State Shoreline Management Act~~ the SMA, for shorelines of the State; and
- Assure that proposed regulatory or administrative actions do not unconstitutionally infringe upon private property rights.

20.200.040 Shoreline elements.

The following elements have been considered in the preparation of this Master Program for the City of ~~Shoreline~~. The goals and objectives established for these elements provide the basis for policies and regulations included under the general use requirements of this Master Program.

ECONOMIC DEVELOPMENT ELEMENT

Goal Provide for economically productive uses that are particularly dependent on their shoreline location or use.

Objective Plan for economic activity that is water-dependent, water-related, or that provides an opportunity for a substantial number of people to enjoy the shoreline and water.

PUBLIC ACCESS ELEMENT

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

Objective Provide for public access to publicly owned shoreline areas, except where deemed inappropriate due to safety hazards, inherent security problems, environmental impacts, or conflicts with adjacent uses.

RECREATIONAL ELEMENT

Goal Develop public and private recreation opportunities that are compatible with adjacent uses and that protect the shoreline environments.

Objective Provide for the preservation and enlargement of public and private recreational opportunities and recreational facilities along the shoreline, including but not limited to parks and recreational areas, wherever appropriate.

CIRCULATION ELEMENT

Goal Provide interconnected, efficient, and safe transportation networks to and around the shoreline to accommodate vehicles, transit, pedestrians, and cyclists.

Objective Provide for a safe and adequate circulation system, including existing and proposed major thoroughfares, transportation routes, terminals, and other public utilities and facilities within the shoreline jurisdiction that benefit permitted uses without degrading the environment or aesthetic values of the area.

SHORELINE USE ELEMENT

Goal Regulate land use patterns to locate activity and development in areas of the shoreline that will be compatible with adjacent uses and will be sensitive to existing shoreline environments, habitat, and ecological systems.

Objective Include protections for the natural environment and adjacent uses in SMC Title 20~~the Shoreline Development Code~~, Point Wells Subarea Plan, Saltwater Park master

planning efforts, and other regulatory framework for development along the shoreline.

CONSERVATION ELEMENT

Goal Conserve and protect the natural resources of the shoreline including, but not limited to, scenic vistas, aesthetics, and vital estuarine areas for fisheries and wildlife protection.

Objective Through the use of best available science, develop and implement siting criteria, design standards, and best management practices that promote the long-term enhancement of unique shoreline features, natural resources, and fish and wildlife habitat.

HISTORICAL, CULTURAL, SCIENTIFIC, AND EDUCATIONAL ELEMENT

Goal Identify, preserve, protect, and restore shoreline areas, buildings, and sites having historical, cultural, educational, or scientific values.

Objective Educate citizens on historical, cultural, and scientific significance of shoreline structures, amenities, and functions.

FLOOD HAZARD MANAGEMENT

Goal Protect the City of Shoreline and other property owners from losses and damage created by flooding along the coast and sea-level rise.

Objective Seek regional solutions to flooding problems through coordinated planning with State and Federal agencies, other appropriate interests, and the public.

Objective Develop a plan to mitigate and adapt to potentially altered environmental conditions along the coastline resulting from climate change.

RESTORATION ELEMENT

Goal Improve water quality, reduce the impacts of flooding events; and restore natural areas, vegetation, and habitat functions.

Objective Seek funding for restoration projects within the shoreline jurisdiction and require development proposals to address habitat restoration and water quality.

Objective Engage in discussions with other municipalities that border the Puget Sound and BNSF railroad regarding efforts to benefit fish passage and nutrient transfer.

Subchapter 2. General Provisions

20.200.050 Purpose.

This chapter defines requirements for implementation of the Master Program and sets an orderly process for project review and permitting. The development regulations in the Master Program are intended to make shoreline development responsive to specific design needs and opportunities along the City's shorelines, and to protect the public's interest in the shorelines' recreational and aesthetic values.

20.200.060 Administrator.

The Planning and Community Development Director or designee is the Shoreline Administrator, hereinafter known as the Director, and is vested with authority to:

- Administer the Master Program;
- Approve, approve with conditions, or deny shoreline substantial development permits;
- Grant exemptions from shoreline substantial development permits;
- Determine compliance with Chapter 43.21C RCW, the State Environmental Policy Act (SEPA); and
- Adopt rules that are necessary and appropriate to carry out the provisions of this chapter.

The Director's duties and responsibilities include:

- Making administrative decisions and interpretations of the policies and regulations of this program and the SMA ~~Shoreline Management Act~~;
- Developing and proposing amendments to this Master Program to more effectively and equitably achieve its goals and policies;
- Seeking remedies for violations of this Master Program, the provisions of the SMA ~~Shoreline~~

~~Management Act~~, or the conditions of substantial development permits issued by the City; and

Forwarding shoreline permits to Washington State Department of Ecology for ~~Ecology~~

- ~~action~~ its approval or disapproval.

20.200.070 Applicability.

A. The regulations of this title apply to all areas within the shoreline jurisdiction, including shorelines of the state, shorelines of statewide significance, ~~and~~ their associated wetlands within the City, and to the waters and underlying land of the Puget Sound extending to the middle of Puget Sound adjacent to Kitsap County, between the northern and southern limits of the City, and to shorelands, that area 200 feet landward of the ordinary high water mark (OHWM).

B. These ~~standards~~ regulations provide a preference for permit issuance for measures to protect single-family residences occupied prior to January 1, 1992. Nothing in this Master Program shall constitute authority for requiring or ordering the removal of any structures, improvements, docks, fills, or developments placed in navigable waters prior to December 4, 1969, and the consent and authorization of the State of Washington to the impairment of public rights of navigation, and corollary rights incidental thereto, caused by the retention and maintenance of said structures, improvements, docks, fills or developments are hereby granted; provided, that the consent herein given shall not relate to any structures, improvements, docks, fills, or developments placed on tidelands, shorelands, or beds underlying said waters which are in trespass or in violation of State statutes.

C. Regulation of private property to implement ~~program~~ Master Program goals, such as public access and protection of ecological functions and processes, must be consistent with all relevant constitutional and other legal limitations. These include, but are not limited to, civil rights guaranteed by the U.S. and State constitutions, ~~recent~~ applicable Federal and State case law, and State statutes, such as RCW 34.05.328 and 43.21C.060 and Chapter 82.02 RCW, as amended from time to time.

D. All proposed uses and development, as defined in this ~~chapter~~ title, occurring within the shoreline jurisdiction shall comply with this Master Program and ~~Chapter 90.58 RCW~~ the SMA whether or not a shoreline permit is required for such use or development.

E. Uses and development regulated by this Master Program are subject to applicable provisions of the Shoreline Municipal Code (SMC), the Comprehensive Plan, the Washington State Shoreline Management Act (Chapter 90.58 RCW), SMA and its implementing regulations, chapters 173-26 and 173-27 WAC, Growth Management Act, (Chapter 36.70 RCW), SEPA Environmental Policy Act, (Chapter 43.21C RCW), and its implementing regulations, and Chapter 197-11 WAC, and other applicable local, State and Federal laws, as amended from time to time. Project proponents are responsible for complying with all applicable laws prior to commencing any use, development, or activity.

F. The Master Program policies and regulations shall apply in addition to other City regulations. Where the regulations of the Master Program conflict with other regulations, the regulations that provide more shoreland and shoreline protection shall apply.

G. Nonconforming uses and improvements within the shoreline jurisdiction shall be subject to this program and SMC 20.220.150.

~~H. The City's critical areas ordinance, Chapter 20.80 SMC, which was passed on February 27, 2006, by Ordinance No. 398, is adopted as a part of the Master Program. The provisions of Chapter 20.80 SMC shall apply to any use, alteration or development within the shoreline jurisdiction whether or not a shoreline permit or written statement of exemption is required.~~

~~I. Uses and developments within the shoreline jurisdiction that meet the reasonable use exception provisions of SMC 20.30.336 require a shoreline variance in accordance with this chapter.~~

JH. All critical areas that are within the shoreline jurisdiction shall be managed and regulated per this Master Program. When a critical area overlaps into the shoreline jurisdiction or is partly within and partly outside of shoreline jurisdiction, only the buffer or setback from the portion of the critical area that is outside of the shoreline jurisdiction is subject to the City's critical area regulations, chapter 20.80 SMC. ~~The exemptions and partial exemptions listed in SMC 20.80.030 and 20.80.040 shall not apply within the shoreline jurisdiction. Such activities may require a shoreline substantial development permit, shoreline variance, or shoreline conditional use permit unless the Master Program and RCW 90.58.030(3)(e) specifically indicate the activity is exempt from the shoreline substantial development permit requirements.~~

20.200.080 Master Program review and update.

This Master Program shall be periodically reviewed and updated as provided in the SMA and the implementing regulations in WAC 173-26, as amended from time to time, ~~as necessary~~ to reflect changing local circumstances, new information or improved data, and changes in State statutes and regulations.

20.200.090 Amendments to Master Program.

Amendments shall comply with the applicable procedures set forth in the SMA and the implementing regulations in WAC 173-26, including WAC 173-26-104 Optional Joint Review Process, as amended from time to time.

No amendment shall be effective until approved by the Department of Ecology as provided in RCW 90.58.090(7), as amended from time to time.

~~Any of the provisions of this Master Program may be amended as provided for in RCW 90.58.120 and 90.58.200 and Chapter 173-26 WAC. Amendments to the Master Program do not become effective until approved by the Department of Ecology.~~

~~Proposals for shoreline environment redesignation, for example amendments to the shoreline maps and descriptions, must demonstrate consistency with the criteria set forth in WAC 173-16-040(4).~~

Chapter 20.210 SMP Definitions

Sections:

20.210.010 Definitions.

20.210.010 Definitions.

For the purpose of the Master Program, the following terms shall have the meaning ascribed to them below. Terms not defined in this section shall be defined as set forth in Chapter 20.20 SMC, Chapter 90.58 RCW, and WAC 173-26-020, and WAC 173-27-030, as amended from time to time, with the definitions contained in the RCW and WAC prevailing over the SMC. ~~Where definitions contained in Chapter 20.20 SMC conflict or differ from definitions contained in the Shoreline Management Act, the definitions in the RCW and WAC shall prevail.~~

Accretion. May be either natural or artificial. Natural accretion is the buildup of land, solely by the action of the forces of nature, on a beach by deposition of water- or airborne material. Artificial accretion is a similar buildup of land by reason of an act of man, such as the accretion formed by a groin, breakwater, or beach fill deposited by mechanical means.

Activity. An occurrence associated with a use; the use of energy toward a specific action or pursuit. Examples of shoreline activities include, but are not limited to, fishing, swimming, boating, dredging, fish spawning, or wildlife nesting.

Adjacent Lands. Lands adjacent to the lands within the shoreline jurisdiction. ~~The SMA directs local governments to develop land use controls (i.e., zoning, comprehensive planning) for such lands consistent with the policies of the SMA, related rules and the local shoreline master program (refer to RCW 90.58.340).~~

Agricultural Uses.

A. "Agricultural activities" means 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;

B. "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 20 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;

C. "Agricultural equipment" and "agricultural facilities" include, but are not limited to:

1. 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;
2. Corridors and facilities for transporting personnel, livestock, and equipment to, from, and within agricultural lands;
3. Farm residences and associated equipment, lands, and facilities; and
4. Roadside stands and on-farm markets for marketing fruit or vegetables; and

D. "Agricultural land" means those specific land areas on which agriculture activities are conducted as of the date of adoption of a local master program pursuant to these guidelines this Master Program as evidenced by aerial photography or other documentation. ~~After the effective date of the master program land converted to agricultural use is subject to compliance with the requirements of the master program.~~

Anadromous Fish. Fish born in fresh water, which spend most of their lives in the sea and return to fresh water to spawn. Salmon, smelt, shad, striped bass, and sturgeon are common examples.

Aquaculture. The culture or farming of fish, shellfish, or other aquatic plants and animals. Aquaculture does not include the harvest of wild geoduck associated with the State managed wildstock geoduck fishery and upland finfish.

Aquaculture Activity. Actions directly pertaining to growing, handling, or harvesting of aquaculture produce including, but not limited to, propagation, stocking, feeding, disease treatment, waste disposal, water use, development of habitat and structures. Excluded from this definition are related upland commercial or industrial uses such as wholesale and retail sales, sorting, staging, hatcheries, tank farms, and final processing and freezing.

Associated Wetlands. Those wetlands that are in proximity to and either influence, or are influenced by, tidal waters or a lake or stream subject to the SMAShoreline Management Act. Refer to WAC 173-22-030(1).

Backfill. The placement of earth material or other approved material behind a retaining wall or structure.

Boat Launch or Ramp. Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

Breakwaters. Structures constructed on coasts as part of coastal defense to protect an anchorage from the effects of weather and longshore drift.

Building Setback. The required linear distance between the structure/building and the shoreline or critical area. The building setback shall be equal to the depth of the required native vegetation conservation area.

Bulkheads. A vertical or nearly vertical structure placed parallel to the shoreline at or near the ~~ordinary high water mark (OHWM)~~ for the purpose of armoring the shoreline and protecting structures from the effects of erosion caused by wind or waves. Bulkheads generally consist of concrete, timber, steel, rock, or other material resistant to erosion. Bulkheads are used to protect banks by retaining soil at the toe of the slope, or by protecting the toe of the bank from erosion and undercutting.

Community Boat Launching Ramp. An inclined slab, set of pads, rails, planks, or graded slope used for launching boats with trailers or by hand for use in common by shoreline residents of a certain subdivision or community within shoreline jurisdiction.

Community Pier or Dock. Moorage for pleasure craft and/or landing for water sports for use in common by four or more residential units of a certain subdivision or community within the shoreline jurisdiction.

Conditional Use, Shoreline. A use, development, or substantial development that is classified as a conditional use or is not classified within the Master Program. ~~Refer to WAC 173-27-030(4).~~

Department of Ecology or Ecology. The state agency created under chapter 43.21A RCW responsible for the administration of the SMA.

Development, Shoreline. “Development” means 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 this chapter at any state of water level. ~~RCW 90.58.030(3)(d).~~ Development does not include dismantling or removing structures if there is no other associated development or re-development.

Dredge Spoil. The material removed by dredging.

Dredge Spoil Disposal. The depositing of dredged materials on land or into water bodies for the purpose of either creating new or additional lands or for disposing of the material in an acceptable manner.

Dredging. The removal or displacement of earth such as gravel, sand, mud, or silt from lands covered by water. Lands covered by water include stream beds and wetlands. Dredging is normally done for specific purposes or uses such as maintaining navigation channels, constructing bridge footings, or laying submarine pipelines or cable.

Ecological Functions, Shoreline or Shoreline Functions. The work performed or the role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline’s natural ecosystem. ~~See WAC 173-26-201(c).~~

Enhancement. Alteration of an existing resource to improve or increase its characteristics and processes without degrading other existing functions. Enhancements are to be distinguished from resource creation or restoration projects.

Exemption. ~~Certain specific developments as listed in WAC 173-27-040 are exempt from the definition of substantial developments, and are therefore exempt from the substantial development permit process of the SMA.~~

Fair Market Value. The open market bid price for conducting the work, using the equipment and facilities, and purchase of the goods, services and materials necessary to 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, ~~shall meet all of the~~that 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 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 cases where these guidelines require certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant. In determining an action's infeasibility, the reviewing agency may weigh the action's relative public costs and public benefits, considered in the short- and long-term time frames.~~

Flood Control. Any undertaking for the conveyance, control, and dispersal of floodwaters caused by abnormally high direct precipitation or stream overflow.

Gabions. Cages, cylinders, or boxes filled with soil or sand that are used in civil engineering, road building, and military applications, primarily for erosion control and building dams and retaining walls.

Geotechnical Report or 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 landform 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.

Groin. A rigid structure built out from a shore to protect the shore from erosion, to trap sand, or to direct a current for scouring a channel.

Ground Water Recharge. A hydrologic process where water moves downward from surface water to ground water. Recharge occurs both naturally (through the water cycle) and anthropologically (i.e., “artificial ground water recharge”), where rainwater and/or reclaimed water is routed to the subsurface.

Hydric Soil. Soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper soil horizon(s).

Jetty. Any of a variety of structures used in river, dock, and maritime works that are generally carried out in pairs from river banks, or in continuation of river channels at their outlets into deep water; or out into docks, and outside their entrances; or for forming basins along the sea-coast for ports in tideless seas.

Joint Use. Moorage for pleasure craft and/or landing for water sports for use in common by two or more residential units of a certain subdivision or community within shoreline jurisdiction.

Land Disturbing Activities. Any activity resulting in a movement of earth, or a change in the existing soil cover, both vegetative and nonvegetative, or the existing topography excluding 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. Land disturbing activities include, but are not limited to, clearing, grading, filling, excavation, or addition of new or the replacement of impervious surface. Compaction, excluding hot asphalt mix, which is associated with stabilization of structures and road construction, shall also be considered a land disturbing activity.

Landfilling. 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 creates dry land.

Native Vegetation. Vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as madrona, Douglas fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

Native Vegetation Conservation Area. Vegetated area between the native vegetation setback line and the OHW~~Ordinary high water~~ mark.

Native Vegetation Setback Line. Unless otherwise indicated within this Master Program, the line that establishes the limits of all buildings, fencing and impervious surfaces along the shoreline.

Nonconforming Development or Nonconforming Structure. An existing structure that was lawfully constructed at the time it was built but is no longer full consistent with present regulations such as setbacks, buffers, area, bulk, height, or density standards due to subsequent changes to this Master Program.

Nonconforming Lot. An existing lot that met dimensional requirements of this Master Program at the time of its establishment but now contains less than the required width, depth, or area due to subsequent changes to this Master Program.

~~Nonconforming Use and Development.~~ An existing ~~shoreline use or development~~ that was lawfully constructed or established prior to the effective date of the Act or ~~the applicable~~ this Master Program, or amendments thereto, but which does not conform to present regulations or standards of the program.

Non-Water-Oriented Uses. Those uses that are not water-dependent, water-related, or water-enjoyment.

Normal Maintenance. Usual acts to prevent a decline, lapse, or cessation from a lawfully established condition.

Normal Repair. To restore a 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 effects to shoreline resource 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 effects to shoreline resources or environment.~~

Ordinary High Water Mark (OHWM). OHWM on all lakes, streams, and tidal water is that mark 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 all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by ~~a local government or the Department~~the City, King County, or the Department of Ecology; provided, that in any area where the OHWM~~Ordinary high water mark~~ cannot be found, the OHWM~~Ordinary high water mark~~ adjoining salt water shall be the line of mean higher high tide and the OHWM~~Ordinary high water mark~~ adjoining fresh water shall be the line of mean high water.

Public Access. Public access is the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the State, and to view the water and the shoreline from adjacent locations. ~~Refer to WAC 173-26-221(4).~~

Public Boat Launching Ramp. An inclined slab, set of pads, rails, planks, or graded slope used for launching boats with trailers or by hand for use by the general public.

Public Pier or Dock. Moorage for pleasure craft and/or landing for water sports for use by the general public.

Restoration. The reestablishment or upgrading of impaired ecological processes or functions. This may be accomplished through measures including but not limited to revegetation, removal of intrusive structures, toxic materials, or invasive or nonnative plants. Restoration does not imply a requirement for returning the area to pre-European settlement conditions.

Revetment. A sloped wall constructed of riprap or other suitable material placed on stream banks or other shorelines to retard bank erosion and minimize lateral stream movement. A revetment typically slopes away from the water and has a rough or jagged face. These features differentiate it from a bulkhead, which is a vertical structure. Revetments are a facing of stone, concrete, etc., built to protect a scarp, embankment, or shore structure against erosion by

waves or currents. The principal features of a revetment are: (A) heavy armor layer, (B) filter layer, and (C) toe protection.

Riparian. The characteristic of relating to or living or located on the bank of a natural watercourse (as a river) or sometimes of a lake or a tidewater.

Sediment. The fine-grained material deposited by water or wind.

Shorelands or Shoreland Areas. Those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ~~OHWM~~Ordinary high water mark; contiguous floodplain areas landward 200 feet; and all wetlands and deltas associated with the streams, lakes, and tidal waters that are subject to the provisions of ~~this chapter~~this Master Program; the same to be designated as to location by the ~~Washington State~~ Department of Ecology.

Shoreline Jurisdiction. All “shorelines of the State” and “shorelands” as defined in RCW 90.58.030, as amended from time to time.

Shoreline Management Act (SMA). The Shoreline Management Act of 1971, as adopted in chapter 90.58 RCW, and as amended from time to time.

Shoreline Master Program or Master Program. The comprehensive plan for the use of a described area, and the regulations for use of the area including maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020, as amended from time to time. ~~As provided in RCW 36.70A.480, the goals and policies of a shoreline master program for a county or city approved under Chapter 90.58 RCW shall be considered an element of the county or city’s comprehensive plan. All other portions of the shoreline master program for a county or city adopted under Chapter 90.58 RCW, including use regulations, shall be considered a part of the county or city’s development regulations.~~

Shoreline Modifications. 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 Municipal Code (SMC). The municipal code of the City of Shoreline.

Shorelines. All of the water areas of the State, including reservoirs, and their associated shorelands, together with the lands underlying them; except (A) shorelines of statewide

significance; and (B) shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

Shorelines of Statewide Significance. “Shorelines of the State” that meet the criteria for “shorelines of statewide significance” contained in RCW 90.58.030(2)(f), as amended from time to time. As it applies to the City of Shoreline, shorelines of statewide significance include those areas of Puget Sound and adjacent salt waters between the OHW~~Ordinary high water mark~~ and the line of extreme low tide.

Shorelines of the State. This term includes both “shorelines” and “shorelines of statewide significance.”

Substantial Development. ~~Any development with a total cost or fair market value of \$5,718 or more that requires a shoreline substantial development permit. The threshold total cost or fair market value of \$5,718 is set by the State Office of Financial Management and may be adjusted in the future pursuant to the SMA requirements, as defined in RCW 90.58.030(3)(e) as now or hereafter amended.~~Any development of which the total cost or fair market value exceeds the amount set forth by the Washington State Office of Financial Management pursuant to RCW 90.58.030(3)(e) at the time of application submittal or any development which materially interferes with the normal public use of the water or shorelines of the state.

Washington Administrative Code (WAC). Specifically Chapter 173-26 Master Program Guidelines and Chapter 173-27 Permit and Enforcement, as amended from time to time.

Water-Dependent Use. A use or portion of a use which cannot exist in a location that is not adjacent to the water, but is dependent on the water by reason of the intrinsic nature of its operations.

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

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

Water Quality. The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics.

Water Quantity. ~~Where used in this chapter, the term “water quantity” r~~Refers only to development and uses regulated under ~~this chapter~~this Master Program and affecting water quantity, such as impermeable surfaces and stormwater handling practices. Water quantity, for purposes of ~~this chapter~~this Master Program, does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through 90.03.340, as amended from time to time.

Water-Related Use. A use or portion of a use that is not intrinsically dependent on a waterfront location, but whose economic viability is dependent upon a waterfront location because: (A) the use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or (B) the use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive and/or more convenient.

Wave Return. A structure added on top of, or part of, an existing bulkhead or hard armoring which redirects wave action back waterward and helps prevent water from splashing landward, thereby protecting the armoring itself, and landward items such as natural ecology and other structures.

Weir. A dam in a watercourse, usually a stream or river, to raise the water level or divert its flow.

Wetland Delineation. A technical procedure performed by a wetland specialist pursuant to the manual adopted by the Department of Ecology pursuant to RCW 90.58.380, as amended from time to time, to determine the area of a wetland, ascertaining the wetland’s classification, function, and value, and to define the boundary between a wetland and adjacent uplands. ~~Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved Federal wetland delineation manual and applicable regional supplements. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this program.~~

Wetlands. Areas that are inundated or saturated by surface water 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.

Chapter 20.220
SMP Administrative Procedures

Sections:

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- 20.220.010 Permit requirements – General.
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- 20.220.020 Substantial development permit.
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Subchapter 1.
Permits

- 20.220.010 Permit requirements – General.

- A. Based on the provisions of this Master Program, the Director shall determine if a substantial development permit, a shoreline conditional use permit and/or a shoreline variance is required.
- B. A permit is required for substantial development as defined in SMC 20.210.010 and RCW 90.58.030(3)(e), as amended from time to time, within the shoreline jurisdiction.
- C. A substantial development permit is not required for exempt development. An exempt development requires a statement of exemption pursuant to SMC 20.220.030 and may require a shoreline variance from Master Program provisions and/or a shoreline conditional use permit.
- D. All uses and development shall be carried out in a manner consistent with the SMC and the Master Program regardless of whether a substantial development permit, statement of exemption, shoreline variance, or shoreline conditional use permit is required.
- E. When a development or use is proposed that does not comply with the bulk, dimensional and/or performance standards of this program, such development or use may only be authorized by approval of a shoreline variance, even if the development or use does not require a substantial development permit.
- F. A development or use listed as a shoreline conditional use pursuant to this chapter, or any unlisted use, must obtain a shoreline conditional use permit even if the development or use does not require a substantial development permit.
- G. Issuance of a statement of exemption, shoreline substantial development permit, shoreline variance, or shoreline conditional use permit does not constitute approval of any other ~~C~~city, ~~S~~state, or ~~F~~federal laws or regulations.
- H. All shoreline permits or statements of exemption issued for development or use within the shoreline jurisdiction shall include written findings prepared by the Director, documenting compliance with bulk and dimensional policies and regulations of the Master Program. The Director may attach conditions to the approval as necessary to assure consistency with the SMA and this Master Program ~~and Chapter 90.58 RCW~~. The conditions may include a requirement to post a performance financial guarantee assuring compliance with permit requirements, terms and conditions.

20.220.015 Developments not required to obtain shoreline permits or local reviews.

Requirements to obtain a substantial development permit, conditional use permit, variance, letter of exemption, or other review to implement the SMA do not apply to the following:

A. Remedial actions. Pursuant to RCW 90.58.355, any person conducting a remedial action at a facility pursuant to a consent decree, order, or agreed order issued pursuant to Chapter 70.105D RCW, or to the Department of Ecology when it conducts a remedial action under Chapter 70.105D RCW, as amended from time to time.

B. Boatyard improvements to meet NPDES permit requirements. Pursuant to RCW 90.58.355, as amended from time to time, any person installing site improvements for storm water treatment in an existing boatyard facility to meet requirements of a national pollutant discharge elimination system storm water general permit.

C. Washington State Department of Transportation (WSDOT) facility maintenance and safety improvements. Pursuant to RCW 90.58.356, as amended from time to time, WSDOT projects and activities meeting the conditions of RCW 90.58.356 are not required to obtain a substantial development permit, conditional use permit, variance, letter of exemption, or other local review.

D. Projects consistent with an environmental excellence program agreement pursuant to RCW 90.58.045, as amended from time to time.

E. Projects authorized through the Energy Facility Site Evaluation Council process, pursuant to Chapter 80.50 RCW, as amended from time to time.

20.220.020 Substantial development permit.

A. Substantial development ~~as defined by RCW 90.58.030~~ shall not be undertaken by any person on the shorelines of the State without first obtaining a substantial development permit from the Director, unless the use or development is specifically identified as exempt.

B. A substantial development permit shall only be granted by the Director when the development proposed is consistent with the policies and procedures of the SMA, Chapter 90.58 RCW; the provisions of Chapter 173-27 WAC, as amended from time to time; ~~and this~~ Master Program, and this chapter.

~~C. An exemption from the substantial development permit requirements does not constitute an exemption from the policies and use regulations of the Shoreline Management Act, the provisions of this Master Program or other applicable City, State, or Federal requirements. A formal statement of shoreline exemption is required pursuant to SMC 20.220.030.~~

20.220.030 Development exempt from substantial development permit requirement~~Shoreline exemption.~~

A. Exemptions – In general.

1. The development activities listed in RCW 90.58.030 and WAC 173-27-040, as amended from time to time, shall not require substantial development permits.
2. Exemptions are construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the substantial development permit process.
3. An exemption from the substantial development permit process does not constitute an exemption from compliance with the SMA, this Master Program, or any other applicable city, state, or federal regulations.
4. If any part of a proposed development of use is not eligible for exemption, then a substantial development permit is required for the entire proposed development project.
5. The burden of proof that a development or use is exempt from the permit process is on the applicant.

B. Letter of Exemption.

1. The Director is hereby authorized to approve or deny requests for ~~statements~~letters of exemption from the shoreline substantial development permit requirement for uses and developments within shorelines that are specifically listed in RCW 90.58.030 and WAC 173-27-040, as amended from time to time.
2. Before issuing a shoreline exemption, the Director shall review the Master Program to determine if the proposed development requires a shoreline variance and/or a shoreline conditional use permit.
3. The ~~statement~~letter of exemption shall be in writing and shall indicate the specific exemption of the Master Program that is being applied to the development, and shall provide a summary of the Director's analysis of the consistency of the project with this Master Program and the ActSMA. ~~WAC 173-27-040 delineates exemptions and is included below.~~

4. The Director may attach conditions to the exempted development and/or use as necessary to assure consistency of the project with the SMA and this Master Program.

Exempt developments include:

1. — Any development of which the total cost or fair market value, whichever is higher, does not exceed \$5,000, if such development does not materially interfere with the normal public use of the water or shorelines of the State. The dollar threshold established in this subsection must be adjusted for inflation by the Office of Financial Management every five years, beginning July 1, 2007, based upon changes in the consumer price index during that time period. “Consumer price index” means, for any calendar year, that year’s annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the Bureau of Labor and Statistics, United States Department of Labor. The Office of Financial Management must calculate the new dollar threshold and transmit it to the office of the code reviser for publication in the Washington State Register at least one month before the new dollar threshold is to take effect. For purposes of determining whether or not a permit is required, the total cost or fair market value shall be based on the value of development that is occurring on shorelines of the State as defined in RCW 90.58.030(2)(c). The total cost or fair market value of the development shall include the fair market value of any donated, contributed or found labor, equipment or materials.

2. — Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. “Normal maintenance” includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. “Normal repair” means to restore a 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 effects 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 effects to shoreline resources or environment.

~~3.— Construction of the normal protective bulkhead common to single-family residences. A “normal protective” bulkhead includes 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. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. When a vertical or near-vertical wall is being constructed or reconstructed, not more than one cubic yard of fill per one foot of wall may be used as backfill. When an existing bulkhead is being repaired by construction of a vertical wall fronting the existing wall, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings. When a bulkhead has deteriorated such that an ordinary high water mark has been established by the presence and action of water landward of the bulkhead, then the replacement bulkhead must be located at or near the actual ordinary high water mark. Beach nourishment and bioengineered erosion control projects may be considered a normal protective bulkhead when any structural elements are consistent with the above requirements and when the project has been approved by the Department of Fish and Wildlife.~~

~~4.— Emergency construction necessary to protect property from damage by the elements. An “emergency” is 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 chapter. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the Administrator to be the appropriate means to address the emergency situation, upon abatement of the emergency situation the new structure shall be removed or any permit which would have been required, absent an emergency, pursuant to Chapter 90.58 RCW, these regulations, or the local Master Program, obtained. All emergency construction shall be consistent with the policies of Chapter 90.58 RCW and the local Master Program. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.~~

~~5.— Construction and practices normal or necessary for farming, irrigation, and ranching activities, including agricultural service roads and utilities on shorelands, construction of a barn or similar agricultural structure, and the construction and maintenance of irrigation structures including but not limited to head gates, pumping facilities, and irrigation~~

~~channels; provided, that a feedlot of any size, all processing plants, other activities of a commercial nature, or alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations.~~

~~6.— Construction or modification of navigational aids such as channel markers and anchor buoys.~~

~~7.— Construction on shorelands by an owner, lessee or contract purchaser of a single-family residence for their own use or for the use of their family, which residence does not exceed a height of 35 feet above average grade level and which meets all requirements of the State agency or local government having jurisdiction thereof, other than requirements imposed pursuant to Chapter 90.58 RCW. "Single-family residence" means a detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance. An "appurtenance" is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the ordinary high water mark and the perimeter of a wetland. On a statewide basis, normal appurtenances include a garage; deck; driveway; utilities; fences; installation of a septic tank and drainfield and grading which does not exceed 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 which shall be set forth and regulated within the applicable Master Program. Construction authorized under this exemption shall be located landward of the ordinary high water mark.~~

~~8.— Construction of a dock, including a community dock, designed for pleasure craft only, for the private noncommercial use of the owner, lessee, or contract purchaser of single-family and multiple-family residences. A dock is a landing and moorage facility for watercraft and does not include recreational decks, storage facilities or other appurtenances. This exception applies if either:~~

~~a.— In salt waters, the fair market value of the dock does not exceed \$2,500; or~~

~~b.— In fresh waters, the fair market value of the dock does not exceed \$10,000, but if subsequent construction having a fair market value exceeding \$2,500 occurs within five years of completion of the prior construction, the subsequent construction shall be considered a substantial development for the purpose of this chapter.~~

~~c.— For purposes of this section, salt water shall include the tidally influenced marine and estuarine water areas of the State including the Pacific Ocean, Strait of Juan de Fuca, Strait of Georgia and Puget Sound and all bays and inlets associated with any of the above.~~

~~9.— Operation, maintenance, or construction of canals, waterways, drains, reservoirs, or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored ground water from the irrigation of lands.~~

~~10.— The marking of property lines or corners on State-owned lands, when such marking does not significantly interfere with normal public use of the surface of the water.~~

~~11.— Operation and maintenance of any system of dikes, ditches, drains, or other facilities existing on September 8, 1975, which were created, developed or utilized primarily as a part of an agricultural drainage or diking system.~~

~~12.— Any project with a certification from the governor pursuant to Chapter 80.50 RCW.~~

~~13.— Site exploration and investigation activities that are prerequisite to preparation of an application for development authorization under this chapter, if:~~

~~a.— The activity does not interfere with the normal public use of the surface waters;~~

~~b.— The activity will have no significant adverse impact on the environment including but not limited to fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values;~~

~~c.— The activity does not involve the installation of any structure, and upon completion of the activity the vegetation and land configuration of the site are restored to conditions existing before the activity;~~

~~d.—A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the local jurisdiction to ensure that the site is restored to preexisting conditions; and~~

~~e.—The activity is not subject to the permit requirements of RCW 90.58.550.~~

~~14.—The process of removing or controlling aquatic noxious weeds, as defined in RCW 17.26.020, through the use of an herbicide or other treatment methods applicable to weed control that are recommended by a final environmental impact statement published by the Department of Agriculture or the Department of Ecology jointly with other State agencies under Chapter 43.21C RCW.~~

~~15.—Watershed restoration projects as defined herein. Local government shall review the projects for consistency with the Shoreline Master Program in an expeditious manner and shall issue its decision along with any conditions within 45 days of receiving all materials necessary to review the request for exemption from the applicant. No fee may be charged for accepting and processing requests for exemption for watershed restoration projects as used in this section.~~

~~“Watershed restoration project” means 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 consists of one or more of the following activities:~~

~~a.—A project that involves less than 10 miles of stream reach, in which less than 25 cubic yards of sand, gravel, or soil are 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; 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 in-stream habitat enhancement structure~~

~~associated with the project, is less than 200 square feet in floor area and is located above the ordinary high water mark of the stream.~~

~~d.—“Watershed restoration plan” means a plan, developed or sponsored by the 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.~~

~~16.—A public or private project that is designed to improve fish or wildlife habitat or fish passage, when all of the following apply:~~

~~a.—The project has been approved in writing by the Department of Fish and Wildlife;~~

~~b.—The project has received hydraulic project approval by the Department of Fish and Wildlife pursuant to Chapter 77.55 RCW; and~~

~~c.—The local government has determined that the project is substantially consistent with the local Shoreline Master Program. The local government shall make such determination in a timely manner and provide it by letter to the project proponent.~~

~~Fish habitat enhancement projects that conform to the provisions of RCW 77.55.181 are determined to be consistent with local shoreline master programs, as follows:~~

~~i.—In order to receive the permit review and approval process created in this section, a fish habitat enhancement project must meet the criteria under subsections (A)(16)(c)(i)(A) and (B) of this section:~~

~~(A)—A fish habitat enhancement project must be a project to accomplish one or more of the following tasks:~~

- ~~Elimination of human-made fish passage barriers, including culvert repair and replacement;~~
- ~~Restoration of an eroded or unstable streambank employing the principle 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; or~~
- ~~Placement of woody debris or other in-stream structures that benefit naturally reproducing fish stocks.~~

~~The Department of Fish and Wildlife shall develop size or scale threshold tests to determine if projects accomplishing any of these tasks should be evaluated under the process created in this section or under other project review and approval processes. A project proposal shall not be reviewed under the process created in this section if the Department determines that the scale of the project raises concerns regarding public health and safety; and~~

~~(B) A fish habitat enhancement project must be approved in one of the following ways:~~

- ~~By the Department of Fish and Wildlife pursuant to Chapter 77.95 or 77.100 RCW;~~
- ~~By the sponsor of a watershed restoration plan as provided in Chapter 89.08 RCW;~~
- ~~By the Department as a Department of Fish and Wildlife sponsored fish habitat enhancement or restoration project;~~
- ~~Through the review and approval process for the jobs for the environment program;~~
- ~~Through the review and approval process for conservation district sponsored projects, where the project complies with design standards established by the Conservation Commission through interagency agreement with the United States Fish and Wildlife Service and the Natural Resources Conservation Service;~~

- ~~Through a formal grant program established by the Legislature or the Department of Fish and Wildlife for fish habitat enhancement or restoration; and~~
- ~~Through other formal review and approval processes established by the Legislature.~~

~~ii. Fish habitat enhancement projects meeting the criteria of subsection (A)(16)(c)(i) of this section are expected to result in beneficial impacts to the environment. Decisions pertaining to fish habitat enhancement projects meeting the criteria of subsection (A)(16)(c)(i) of this section and being reviewed and approved according to the provisions of this section are not subject to the requirements of RCW 43.21C.030(2)(c).~~

~~(A) A hydraulic project approval permit is required for projects that meet the criteria of subsection (A)(16)(c)(i) of this section and are being reviewed and approved under this section. An applicant shall use a joint aquatic resource permit application form developed by the Office of Regulatory Assistance to apply for approval under this chapter. On the same day, the applicant shall provide copies of the completed application form to the Department of Fish and Wildlife and to each appropriate local government. Local governments shall accept the application as notice of the proposed project. The Department of Fish and Wildlife shall provide a 15-day comment period during which it will receive comments regarding environmental impacts. Within 45 days, the Department shall either issue a permit, with or without conditions, deny approval, or make a determination that the review and approval process created by this section is not appropriate for the proposed project. The Department shall base this determination on identification during the comment period of adverse impacts that cannot be mitigated by the conditioning of a permit. If the Department determines that the review and approval process created by this section is not appropriate for the proposed project, the Department shall notify the applicant and the appropriate local governments of its determination. The applicant~~

~~may reapply for approval of the project under other review and approval processes.~~

~~(B) Any person aggrieved by the approval, denial, conditioning, or modification of a permit under this section may formally appeal the decision to the hydraulic appeals board pursuant to the provisions of this chapter.~~

~~iii. No local government may require permits or charge fees for fish habitat enhancement projects that meet the criteria of subsection (A)(16)(c)(i) of this section and that are reviewed and approved according to the provisions of this section.~~

~~17. Before issuing a shoreline exemption, the Director shall review the Master Program to determine if the proposed development requires a shoreline variance and/or a shoreline conditional use permit.~~

20.220.040 Shoreline variance.

The purpose of a variance is to grant relief to specific bulk, ~~or~~ dimensional, or performance requirements set forth in the Master Program where there are extraordinary or unique circumstances relating to the physical character or configuration of property such that the strict implementation of ~~this program~~ the Master Program would impose unnecessary hardships on the applicant or ~~diminish~~ thwart the policies set forth in RCW 90.58.020, as amended from time to time.

~~A. The Director is authorized to approve a shoreline variance from the performance standards of this Master Program only when all of the criteria enumerated in WAC 173-27-170 are met.~~

~~B. A shoreline variance should be granted in circumstances where denial of the permit would thwart the policies enumerated in RCW 90.58.020.~~

~~C. In all instances, the applicant must demonstrate that extraordinary circumstances exist and the public interest will not suffer substantial detrimental effect.~~

AD. The applicant for a shoreline variance must demonstrate that the variance meets the criteria in WAC 173-27-170, as amended from time to time. In all instances, the applicant must demonstrate that extraordinary circumstances exist and the public interest shall suffer no substantial detrimental effect.

~~E.~~ Proposals that require a critical area reasonable use permit pursuant to SMC 20.30.336 shall also require a shoreline variance.

B. A shoreline variance should be granted in circumstances where denial of the permit would thwart the policies enumerated in RCW 90.58.020, as amended from time to time.

C. The Director is authorized to approve a shoreline variance from the bulk, dimensional, or performance standards of this Master Program only when all of the criteria enumerated in WAC 173-27-170 are met, as amended from time to time.

DF. Prior to approval of any shoreline variance, the Director shall consider the cumulative environmental impacts of previous, existing, and possible future requests for like actions in the area. The total effects of approved shoreline variances should remain consistent with the policies of RCW 90.58.020, as amended from time to time, and this Master Program and shall not produce significant adverse effects to the shoreline ecological functions, processes, or other users.

EG. Before making a determination to approve a shoreline variance, the Director shall consider issues related to the conservation of valuable natural resources and the protection of views from public lands.

FH. Shoreline variance requests based on the applicant's/proponent's desire to enhance the view from the subject development may be granted where there are no likely detrimental effects to existing or future users, views from public lands, critical areas, other features or shoreline ecological functions and/or processes, and where reasonable alternatives of equal or greater consistency with this program are not available.

GI. A shoreline variance shall not be granted:

1. ~~When~~ it would allow a greater height or lesser shoreline setback than what is typical for the area immediately surrounding the development site.

2. When it seeks relief from the use regulations of the Master Program.

HJ. A variance issued per SMC 20.30.310 shall not be construed to mean approval of a shoreline variance from ~~Shoreline~~-Master Program use regulations.

IK. An issued shoreline variance does not provide relief from the variance requirements under SMC 20.30.310.

20.220.050 Shoreline conditional use permit.

The purpose of a shoreline conditional use permit is to allow greater flexibility in the application of the use regulations of the Master Program in a manner consistent with the policies of RCW 90.58.020, as amended from time to time.

A. The applicant for a shoreline conditional use permit must demonstrate that all of the criteria in WAC 173-27-160 are met, as amended from time to time.~~The Director is authorized to issue shoreline conditional use permits only when all the criteria enumerated in WAC 173-27-160 are met.~~

B. Shoreline conditional use permits should be granted in a circumstance where denial of the permit would result in a conflict with the policies enumerated in RCW 90.58.020, as amended from time to time.

C. The Director is authorized to issue shoreline conditional use permits only when all the criteria enumerated in WAC 173-27-160 are met, as amended from time to time.

1. In granting conditional use permits, consideration shall be given to the cumulative impact of additional requires for like actions in the area.

2. In authorizing a shoreline conditional use, special conditions may be attached to the permit by the Director or by the Department of Ecology to minimize the effects of the proposed use. Uses that are specifically prohibited by the Master Program may not be authorized with the approval of a shoreline conditional use permit.

D. A conditional use permit shall not be issued when uses are specifically prohibited by this Master Program. Non-classified uses or uses not set forth in the Master Program may be authorized as a conditional use provided the applicant can demonstrate consistency with the requirements of this chapter.~~Proposals that require a critical area reasonable use permit pursuant to SMC 20.30.336 shall also require a shoreline variance.~~

Subchapter 2.

SMP Permit Procedures

20.220.060 General.

A. Permits required under this chapter shall be processed consistent with the provisions of Chapter 20.30 SMC and the criteria in this subchapter.

B. No permit shall be approved unless the proposed development is consistent with the provisions of this Master Program, the ~~SMAShoreline Management Act of 1971~~, and the rules and regulations adopted by the Department of Ecology.

C. Applications for shoreline permits shall also demonstrate compliance with the provisions of this subchapter.

20.220.070 Application review.

A. Applications for shoreline permits shall comply with the submittal requirements developed pursuant to SMC 20.30.100 and WAC 173-27-180, as amended from time to time, and shall provide all information the Director determines necessary for an application to be complete.

B. **Burden of Proof.** It is the applicant's responsibility to provide proof that the proposed development is consistent with the permit criteria requirements.

C. **Approval.** The Director may approve, or approve with conditions, any application that complies with criteria imposed by ~~this~~ Master Program and the ~~SMA~~Shoreline Management Act.

D. **Conditions.** The Director may attach to a permit any suitable and reasonable terms or conditions necessary to ensure the purpose and objectives of this Master Program and the ~~SMA~~Shoreline Management Act.

E. **Denial.** The Director may deny any application that does not comply with criteria imposed by ~~this~~ Master Program or the ~~SMA~~Shoreline Management Act.

F. **Financial Guarantees.** The Director may require a financial guarantee to assure full compliance with the terms and conditions of any substantial development permit, shoreline variance or shoreline conditional use. The guarantee shall be in an amount to reasonably assure the City that permitted improvements will be completed within the time stipulated.

20.220.080 Permit process.

A. **Application Submittal.** Complete applications for a substantial development permit, shoreline variance, and a shoreline conditional use permit are Type B actions. The applications will be processed pursuant to the procedures identified in this subchapter and SMC 20.30.010 through 20.30.270 and Table 20.30.050. Unless the SMA or other applicable law provides otherwise, the target time for local review is as set forth in Chapter 20.30 SMC.

B. **Decision.** The Director shall provide notice of final decision per SMC 20.30.150. Pursuant to RCW 90.58.140(6), as amended from time to time, the Director shall send the final decision, including findings and conclusions, to the following State agencies:

1. Department of Ecology.
2. Attorney General.

C. **Department of Ecology Review of Permits.**

1. After the Director has approved a shoreline variance or shoreline conditional use permit, the Director shall file the permit with the Department of Ecology for its approval, approval with conditions, or denial.

~~2. When a substantial development permit, a shoreline variance, or a shoreline conditional use permit are required for a development, the local government's ruling on the permit shall be filed simultaneously with Ecology.~~

~~23.~~ The Department of Ecology will issue its decision on a shoreline variance or shoreline conditional use permit within 30 days of filing.

~~34.~~ Upon receipt of the Department of Ecology's decision, the Director shall notify those interested parties having requested notification of such decision.

D. **Local Permit Filing Procedures.** After all local permit administrative appeals are complete and the permit documents are amended to incorporate any resulting changes, the City shall mail the permit using return receipt requested mail to the Department of Ecology regional office and the Office of the Attorney General. Projects that require both Conditional Use Permits and or Variances shall be mailed simultaneously with any Substantial Development Permits for the project.

1. The permit and documentation of the final local decision will be mailed together with the complete permit application; a findings and conclusions letter; the final decision of the City, a permit data sheet required by WAC 173-27-190, as amended from time to time; and applicable SEPA documents.

2. Consistent with RCW 90.58.140(6), as amended from time to time, the State Shorelines Hearings Board twenty-one-day appeal period starts with the date of filing, which is defined below:

a. For projects that only require a Substantial Development Permit (SDP): the date that the Department of Ecology receives the City decision.

b. For a Conditional Use Permit (CUP) or Variance (VAR): the date that the Department of Ecology's decision on the CUP or Variance is transmitted to the applicant and the City.

c. For SDPs simultaneously mailed with a CUP or VAR to the Department of Ecology: the date that the Department of Ecology's decision on the CUP or Variance is transmitted to the applicant and the City.

20.220.090 Local appeals.

There are no administrative appeals for shoreline permit decisions made by the Director.

20.220.110 Appeals to State Shoreline Hearings Board.

A. Appeals of the final decision of the City with regard to shoreline management shall be governed by the provisions of RCW 90.58.180, as amended from time to time.

B. Appeals to the Shoreline Hearings Board of a decision on a shoreline substantial development permit, shoreline variance or shoreline conditional use permit may be filed by the applicant/proponent or any aggrieved party pursuant to RCW 90.58.180.

~~C. The effective date of the City's decision shall be the date of filing with the Department of Ecology as defined in RCW 90.58.140.~~

20.220.120 Initiation of development.

A. Development pursuant to a shoreline substantial development permit shall not be authorized until 21 days after the "date of filing" of the Director's decision with the Department of Ecology;

B. Development for which a shoreline variance or shoreline conditional use is required shall not begin and shall not be authorized until 21 days after the "date of filing" of the Department of Ecology's decision with the Director; or

C. All appeal proceedings before the ~~Washington~~ State Shoreline Hearings Board have terminated.

20.220.130 Expiration of permits.

The City of Shoreline may specify the length of time a shoreline permit will be effective based on the specific requirements of the development proposal. If a permit does not specify an expiration date, the following requirements apply, consistent with ~~WAC 173-14-060~~ WAC 173-27-090, as amended from time to time:

A. **Time Limit for Substantial Progress.** Construction activities, or substantial progress toward completion, or where no construction activities are involved, the use or activity must begin within two (2) years after ~~approval~~ the effective date of the permits.

B. **Extension for Substantial Progress.** If a request for extension has been filed before the expiration date and notice of the proposed extension is ~~The City of Shoreline may at its discretion, with prior notice given~~ to parties of record and the Department of Ecology, the City may authorize ~~extend the two-year time period for the substantial progress for a reasonable time up to one year~~ a single extension of no more than one (1) year based on reasonable factors, including the inability to expeditiously obtain other governmental permits that are required prior to the commencement of construction.

C. **Five-Year Permit Authorization.** If construction has not been completed within five years of ~~approval~~ the effective date of the permit ~~by the City of Shoreline~~ and a request for extension has been filed before the expiration date, the City may authorize a single extension of no more than one (1) year based on reasonable factors. ~~the City will review the permit and, upon showing of good cause, either extend the permit for one year, or terminate the permit.~~

D. Only one extension of up to one (1) year may be authorized.

E. Prior to the City authorizing any permit extensions, it shall notify any parties of record and the Department of Ecology. ~~Note: Only one extension is permitted.~~

20.220.140 Revision to permits.

A. A permit revision is required whenever the applicant proposes substantive changes to the design, terms or conditions of a project from those which are 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, this Master P program or the Act SMA. Changes that are not substantive in effect do not require a permit revision.

B. An application for a revision to a shoreline permit shall be submitted to the Director. The application shall include detailed plans and text describing the proposed changes. The City shall

review and process the request in accordance with the requirements of WAC 173-27-100, as amended from time to time.

20.220.150 Nonconforming use and development.

A. Nonconforming Structures.

1. Structures that were legally established and are used for a conforming use, but which are nonconforming with regard to setbacks, buffers or yards, area, bulk, height, or density, may be maintained and repaired, and may be enlarged or expanded; provided, that said enlargement does not increase the extent of nonconformity by further encroaching upon or extending into areas where construction or use would not be allowed for new development or uses. Such normal appurtenances are by definition located landward of the OHWM~~ordinary high water mark~~.
2. A structure for which a shoreline variance has been issued shall be considered a legal nonconforming structure, and the requirements of this section shall apply as they apply to preexisting nonconformities.
3. A structure that is being or has been utilized for a nonconforming use may be used for a different nonconforming use only upon the approval of a shoreline conditional use permit. A shoreline conditional use permit may be approved only upon a finding that:
 - a. No reasonable alternative conforming use is practical;
 - b. The proposed use will be at least as consistent with the policies and provisions of the ~~Act~~ SMA and this Master Program, and as compatible with the uses in the area, as the preexisting use; and
 - c. Conditions may be attached to the permit as are deemed necessary to assure compliance with the above findings, the requirements of the Master Program and the SMA~~Shoreline Management Act~~, and to ensure that the use will not become a nuisance or a hazard.
4. Any structure nonconforming as to height or setback standards that becomes damaged may be repaired or reconstructed; provided, that:
 - a. The extent of the previously existing nonconformance is not increased; and

- b. The building permit application for repair or reconstruction is submitted within 12 months of the occurrence of damage or destruction.

B. Nonconforming Uses.

1. Uses that were legally established and are nonconforming with regard to the use regulations of the Master Program may continue as legal nonconforming uses. Such uses shall not be enlarged or expanded, without an approved conditional use permit, except that nonconforming single-family residences that are located landward of the ~~OHWM~~Ordinary high water mark may be enlarged or expanded in conformance with applicable bulk and dimensional standards by the addition of space to the main structure or by the addition of normal appurtenances as defined in WAC 173-27-040(2)(g), as amended from time to time.
2. A use which is listed as a conditional use but existed prior to adoption of the Master Program or any relevant amendment, and for which a conditional use permit has not been obtained, shall be considered a nonconforming use.
3. A use which is listed as a conditional use in SMC Table 20.230.081 but existed prior to the applicability of the Master Program to the site, and for which a shoreline conditional use permit has not been obtained, shall be considered a nonconforming use.
4. If a nonconforming use is abandoned for 12 consecutive months, or for 12 months during any two-year period, the nonconforming rights shall expire and any subsequent use shall be made conforming. A use authorized pursuant to subsection (B)(1) of this section shall be considered a conforming use for purposes of this section.

C. Nonconforming Lots. An undeveloped lot, tract, parcel, site, or division of land located landward of the ~~OHWM~~Ordinary high water mark which was established in accordance with Chapter 20.30 SMC, Subchapter 7, and State subdivision requirements prior to the effective date of the ~~Act~~SMA or the ~~applicable~~ Master Program that does not conform to the present lot size standards may be developed if permitted by other land use regulations of ~~the local government~~the City, as long as such development conforms to all other requirements of ~~this applicable~~ Master Program and the ~~Act~~SMA.

20.220.160 Enforcement.

A. The Director is authorized to enforce the provisions of this chapter and any rules and regulations promulgated hereunder pursuant to the enforcement and penalty provisions of WAC 173-27, as amended from time to time.

B. This program will be enforced by the means and procedures set forth in Chapter 20.30 SMC, Subchapter 9.

Chapter 20.230
SMP Shoreline Policies and Regulations

Sections:

Subchapter 1. General Policies and Regulations

- 20.230.010 General.
- 20.230.020 Environmental.
- ~~20.230.030 Environmentally sensitive areas within the shoreline.~~
- 20.230.040 Public access.

Subchapter 2. Specific Shoreline Use Policies and Regulations

- 20.230.070 General.
- 20.230.080 Shoreline environmental designations. ~~Map included in Appendix D, page 205.~~
- 20.230.081 Permitted Uses and Modifications.
- 20.230.082 Native Conservation Area and Building Setbacks.
- 20.230.090 Boating facilities.
- 20.230.095 Breakwaters, jetties, groins, and weirs.
- 20.230.100 Nonresidential development.
- 20.230.110 In-stream structures.
- 20.230.115 Aquaculture.
- 20.230.120 Parking areas.
- 20.230.130 Recreational facilities.
- 20.230.140 Residential development.

Subchapter 3. Shoreline Modification Policies and Regulations

- 20.230.150 General.
- 20.230.160 Dredging and disposal of dredging spoils.
- 20.230.170 Piers and docks.
- 20.230.175 Pier and dock repair, replacement, or expansion.
- 20.230.180 Bulkheads.
- 20.230.190 Revetment.
- 20.230.200 Land disturbing activities.
- 20.230.210 Landfilling.
- 20.230.230 Signs.
- 20.230.240 Stormwater management facilities.
- 20.230.250 Transportation.

20.230.260 Unclassified uses and activities.

20.230.270 Utilities.

Subchapter 1. General Policies and Regulations

20.230.010 General.

The general policies and regulations apply to all uses and activities that may occur within the City's shoreline jurisdiction regardless of this ~~Shoreline~~ Master Program's environment designation. These policies and regulations provide the overall framework for the management of the shoreline. Use these general regulations in conjunction with Subchapter 2 of this chapter, Specific Shoreline Use Policies and Regulations.

20.230.020 Environmental.

The ~~Shoreline Management Act (SMA)~~ is concerned with the environmental impacts that development, use, or activity may have on the fragile shorelines of the State. Development and certain uses or activities within the regulated shoreline may degrade the shoreline and its waters, and may damage or inhibit important species and their habitat.

A. General Environmental Policies and Regulations.

Policies

1. The adverse impacts of shoreline developments and activities on the natural environment, critical areas and habitats for proposed, threatened, and endangered species should be minimized during all phases of development (e.g., design, construction, operation, and management).
2. Shoreline developments that protect and/or contribute to the long-term restoration of habitat for proposed, threatened, and endangered species are consistent with the fundamental goals of this Master Program. Shoreline developments that propose to enhance critical areas, other natural characteristics, resources of the shoreline, and/or provide public access and recreational opportunities to the shoreline are also consistent with the fundamental goals of this Master Program, and should be encouraged.

Regulations

1. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that mitigates adverse impacts to the environment. When applying mitigation to avoid or minimize significant adverse effects and significant ecological impacts, the

City will apply the following sequence of steps in order of priority, with subsection (A)(1)(a) of this section 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; or
- f. Monitoring the impact and the compensation projects (from subsection (A)(1)(e) of this section) and taking appropriate corrective measures.

Efforts to avoid and minimize impacts must be documented in a manner acceptable to the Director prior to the approval of mitigation and/or compensation actions.

2. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that assures no net loss of shoreline ecological function.
3. All shoreline development shall be located, designed, constructed, and managed to protect the functions and values of critical areas consistent with ~~the Shoreline Critical Area Regulations (Appendix A).~~ the SMP Critical Areas Regulations contained in Chapter 20.240 SMC.
4. All shoreline development shall be located and designed to avoid or minimize the need for shoreline stabilization measures and flood protection works, such as bulkheads, revetments, dikes, levees, or substantial site regrading and dredging. Where measures and works are demonstrated to be necessary, biostabilization techniques shall be the preferred design option unless demonstrated to be infeasible, or when other alternatives will have less impact on the shoreline environment.
5. All shoreline development and activity shall be located, designed, constructed, operated, and managed to minimize interference with beneficial natural shoreline processes, such as water circulation, sand and gravel movement, erosion, and accretion to ensure no net loss of shoreline ecological function.
6. In approving shoreline developments, the Director shall ensure that the development will maintain, enhance, or restore desirable shoreline features, as well as ensure no net loss of ecological functions. To this end, the Director may adjust and/or prescribe project dimensions, location of project components on the site, intensity of use, screening, and mitigation as deemed appropriate. Mitigation shall be required of developments that would otherwise result in net loss of ecological functions.

7. In approving shoreline developments, the Director shall consider short- and long-term adverse environmental impacts. In addition, the Director shall consider the cumulative adverse impacts of the development, particularly the precedence effect of allowing one development, which could generate or attract additional development. Identified significant short-term, long-term, and cumulative adverse environmental impacts lacking appropriate mitigation shall be sufficient reason for permit denial.
8. As a condition of approval, the Director may require periodic monitoring for up to 10 years from the date of completed development to ensure the success of required mitigation. Mitigation plans shall include at a minimum:
 - a. Inventory of the existing shoreline environment including the physical, chemical, and biological elements, and provide an assessment of each element's condition;
 - b. A discussion of the project's impacts and their effect on the ecological functions necessary to support existing shoreline resources;
 - c. A discussion of any Federal, State, or local special management recommendations that have been developed for wetlands, species, or habitats located on the site;
 - d. An assessment of habitat recommendations proposed by resource agencies and their applicability to the proposal;
 - e. A discussion of measures to preserve existing habitats and opportunities to restore habitats that were degraded prior to the proposed land use activity. Mitigation plans shall include at a minimum: planting and soil specifications (in the case of mitigation planting projects), success standards, and contingency plans;
 - f. A discussion of proposed measures that mitigate the impacts of the project and establish success criteria;
 - g. An evaluation of the anticipated effectiveness of the proposed mitigation measures;
 - h. A discussion of proposed management practices that will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs;
 - i. A monitoring plan, including scientific procedures to be used to establish success or failure of the project, sampling points, success criteria, and a monitoring schedule; and
 - j. Any additional information necessary to determine the impacts of a proposal and appropriate mitigation.
9. Shoreline development shall not be permitted if it substantially degrades significantly impacts the natural character of the shoreline, natural resources, or public recreational use of

the shoreline. "Significant" is defined in the ~~State Environmental Policy Act (SEPA) Rules~~ in WAC 197-11-794, as amended from time to time.

10. Where provisions of this Master Program conflict with each other, or with other laws, ordinances or programs, the most restrictive provisions shall apply.

B. Earth.

Policies

1. Beaches are valued for recreation and may provide fish spawning substrate. Development that could disrupt these shoreforms may be allowed:

- a. When such disruption would not reduce shoreline ecological function;
- b. Where there is a demonstrated public benefit; and/or
- c. Where the Washington State Department of Fish and Wildlife (WDFW) determines there would be no significant impact to the fisheries resource.

Regulations

1. Developments that alter the shoreline topography may be approved if:

- a. Flood events will not increase in frequency or severity resulting from the alteration; and/or
- b. The alteration would not impact natural habitat forming processes and would not reduce ecological functions. Mitigation is required for projects that would reduce ecological functions to ensure no net loss of function.

2. The applicant shall incorporate all known, available, and reasonable methods of prevention, control, and treatment measures into stormwater pollution prevention during and post construction.

3. All debris and other waste materials from construction shall be disposed of in such a manner as to prevent their entry into the water body.

4. All disposal sites for soils and materials resulting from the shoreline development shall be identified and approved before permit issuance.

C. Water.

Policies

1. Shoreline development and activities shall result in no net loss of ecological functions.

2. Development and regulated activities shall minimize impacts to hydrogeologic processes, surface water drainage, and ground water recharge.

3. Measures shall be incorporated into the development, use, or activity to protect water bodies and wetlands from all sources of pollution including, but not limited to, sediment and silt, petrochemicals, and wastes and dredge spoils.

4. Adequate provisions to prevent water runoff from contaminating surface and ground water shall be included in development design. The Director may specify the method of surface water control and maintenance programs. Surface water control must comply with the adopted stormwater manual.
5. All measures for the treatment of surface water runoff for the purpose of maintaining and/or enhancing water quality shall be conducted on site. Off-site treatment facilities may be considered if on-site treatment is not feasible.
6. Point and nonpoint source pollution should be managed on a basin-wide basis to protect water quality and support the efforts of shoreline property owners to maintain shoreline ecological functions.

Regulations

1. Pesticides, herbicides and fertilizers that have been identified by State or Federal agencies as harmful to humans, wildlife, or fish shall not be used on City-owned property within the shoreline jurisdiction or for development or uses approved under a substantial development permit, shoreline conditional use permit or shoreline variance, except as allowed by the Director for the following circumstances:
 - a. When use of pesticides, herbicides and fertilizers is consistent with the best management practices (BMPs) for the project or use proposed;
 - b. When the Director determines that an emergency situation exists where there is a serious threat to public safety, health or the environment and that an otherwise prohibited application must be used as a last resort.

Where chemical fertilizer, herbicide, or pesticide use is necessary to protect existing natural vegetation or establish new vegetation as part of an erosion control or mitigation plan, the use of time release fertilizer and herbicides shall be preferred over liquid or concentrate application, except as used in targeted hand applications.

2. The release of oil, chemical, or hazardous materials onto or into the water is prohibited. Equipment for the transportation, storage, handling, or application of such materials shall be maintained in a safe and leakproof condition. If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected. During construction, vehicle refueling and vehicle maintenance shall occur outside of regulated shoreline areas.
3. The bulk storage of oil, fuel, chemical, or hazardous materials, on either a temporary or a permanent basis, is prohibited, except for uses allowed by the zoning classification. For the purpose of this section, heating oil, small boat fuel, yard maintenance, equipment fuel, propane,

sewage sumps, and similar items common to single-family residential uses are not included in this definition.

D. Plants and Animals.

Policies

1. In general, this Master Program shall strive to protect and restore anadromous fish resources in the Puget Sound and its tributaries within the ~~City of Shoreline~~.
2. Shoreline development, uses, and activities shall be:
 - a. Located and conducted in a manner that minimizes impacts to existing ecological values and natural resources of the area, conserves properly functioning conditions, and ensures no net loss of shoreline ecological functions;
 - b. Scheduled to protect biological productivity and to minimize interference with fish resources including anadromous fish migration, spawning, and rearing activity;
 - c. Designed to avoid the removal of trees in shorelines wherever practicable, and to minimize the removal of other woody vegetation. Where riparian vegetation is removed, measures to mitigate the loss of vegetation shall be implemented to ensure no net loss; and
 - d. Designed to minimize impacts to the natural character of the shoreline as much as possible.

Regulations

1. Mitigation shall be required of the applicant for the loss of fish and wildlife resources, and natural systems, including riparian vegetation, wetlands, and ~~sensitive~~ other environmentally critical areas. The mitigation required shall be commensurate to the value and type of resource or system impacted by development and activity in the shoreline. On-site compensatory mitigation shall be the preferred mitigation option, except where off-site mitigation can be demonstrated to be more beneficial to fish and wildlife resources, and natural systems, including riparian vegetation, wetlands, and ~~critical~~ sensitive areas. If on-site compensatory mitigation is not feasible or if off-site mitigation is demonstrated to be more beneficial to the shoreline environment, the applicant shall provide funding for a publicly sponsored restoration or enhancement program in the ~~City of Shoreline~~.
2. Enhancement, restoration, and/or creation of coniferous riparian forest or forested riparian wetland shall be the preferred mitigation for impacts to riparian vegetation and wetlands when avoidance is not possible. Preference will be based on site-specific recommendation of qualified professional. Alterations to fish and wildlife habitat conservation areas should be avoided. If they cannot be avoided, mitigation is required, and a habitat management plan shall be prepared as required in SMC 20.240.274~~20.80.290~~ and ~~20.80.300~~.

3. Habitat management plans shall be forwarded by the applicant to the appropriate State and/or Federal resource agencies for review and comment. The City will provide the applicant with a list of addressees for this purpose.
4. Based on the habitat management plan, and comments from other agencies, the Director may require mitigating measures to reduce the impacts of the proposal on the fish and wildlife habitat conservation areas. Mitigating measures may include, but are not limited to:
 - a. Increased or enhanced buffers;
 - b. Setbacks for permanent and temporary structures;
 - c. Reduced project scope;
 - d. Limitations on construction hours;
 - e. Limitations on hours of operation; and/or
 - f. Relocation of access.
5. Mitigation activities shall be monitored to determine effectiveness of the habitat mitigation plan. Monitoring shall be accomplished by a third party, subject to the approval by the Director, and shall have the concurrence of the U.S. Fish and Wildlife Service, NOAA Fisheries, WDFW~~Washington Department of Fish and Wildlife~~, and, where applicable, the ~~Washington~~ Department of Ecology. Monitoring shall occur for up to 10 years following implementation of the plan. Results of the monitoring shall be publicly available and reported to the U.S. Fish and Wildlife Service and National Marine Fisheries Service. Reports shall contain the following information:
 - a. A list and map of parcels subject to this requirement;
 - b. The implementation status of the habitat management plans;
 - c. Status of the improvements (e.g., updates if success standards are being met, what types of remedial actions have been implemented); and
 - d. Recommendations for corrective measures if necessary.
6. If proposed mitigation is found to be inadequate, or if adequate mitigation is determined to be impossible, the application shall be denied.
7. Timing of in-water construction, development, or activity shall be determined by WDFW~~Washington Department of Fish and Wildlife~~.
8. Properties that are located in the urban conservancy shoreline environment designation shall retain trees that are 12 inches or more in diameter. Trees determined by a certified arborist to be hazardous or diseased may be removed upon approval by the City. If healthy or nonhazardous trees are removed, each removed tree must be replaced with at least three six-

foot-tall trees, one 18-foot-tall tree, or one 12-foot plus one six-foot-tall tree. Trees must be of the same species removed, or equivalent native tree species.

E. Noise.

Policy

1. Noise levels shall not interfere with the quiet enjoyment of the shoreline.

Regulations

1. Any noise emanating from a shoreline use or activity shall be muffled so as to not interfere with the designated use of adjoining properties. This determination shall take into consideration ambient noise levels, intermittent beat, frequency, and shrillness.

2. Ambient noise levels shall be a factor in evaluating a shoreline permit application.

Shoreline developments that would increase noise levels to the extent that the designated use of the shoreline would be disrupted shall be prohibited. Noise shall be evaluated pursuant to Chapter 9.05 SMC Noise Control. ~~Specific maximum environment noise levels can be found in WAC 173-60-040.~~

F. Public Health.

Policy

1. All development within the regulated shoreline shall be located, constructed, and operated so as not to be a hazard to public health and safety.

Regulations

1. Development shall be designed to conform to the codes and ordinances adopted by the City.

G. Land Use.

Policy

1. The size of the shoreline development and the intensity of the use shall be compatible with the surrounding environment and uses. ~~The City of Shoreline~~ may prescribe operation intensity, landscaping, and screening standards to ensure compatibility with the character and features of the surrounding area.

2. Shoreline developments shall minimize land use conflicts to properties adjacent to, upstream, and downstream of the proposed site.

Regulations

1. In reviewing permit applications, the City shall consider current and potential public use of the shoreline, total water surface reduction, and restriction to navigation.

2. Development within the designated shoreline shall comply with the development and uses standards for the underlying zoning district.

H. **Aesthetics.**

Policy

1. Development should be designed to minimize the negative aesthetic impact structures have on the shoreline by avoiding placement of service areas, parking lots, and/or view- blocking structures adjacent to the shoreline.

Regulations

1. Development shall be designed to comply with the code standards required in the underlying zoning districts.
2. If the zoning and use require landscaping, or if planting is required for mitigation by the Director, the property owner shall provide a landscape plan that provides suitable screening that does not block public views.
3. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties and adjoining waters.
4. Development on the water shall be constructed of nonreflective materials that are compatible in terms of color and texture with the surrounding area.
5. Lighting shall be properly directed and shielded to avoid impacts to fish and off-site glare.

I. **Historical/Cultural.**

Policy

1. Development should strive to preserve historic or culturally significant resources.

Regulations

1. Developments that propose to alter historic or culturally significant resources identified by the National Trust for Historic Preservation, the Washington State Department of Archaeology and Historic Preservation, the King County Historic Preservation Program, or the City of Shoreline Historic Resource Inventory, or resources that could potentially be designated as historically or culturally significant, shall follow the applicable Federal, State, County, or local review process(es).
2. All shoreline permits issued by the City require immediate work stoppage and City notification when any item of archaeological interest is uncovered during excavation. The applicant or project owner shall notify the Washington State Department of Archaeology and Historic Preservation-Office, affected Indian tribes, and the City.
3. Where archaeological or historic sites have been identified, and it is determined that public access to the site will not damage or reduce the cultural value of the site, access may be required consistent with SMC 20.230.040.

~~20.230.030 Environmentally sensitive areas within the shoreline.~~

~~A. Critical Areas.~~

~~General Policy~~

- ~~1. Preserve and protect unique, rare, and fragile natural and manmade features and wildlife habitats.~~
- ~~2. Enhance the diversity of aquatic life, wildlife, and habitat within the shoreline.~~
- ~~3. Conserve and maintain designated open spaces for ecological, educational, and recreational purposes.~~
- ~~4. Recognize that the interest and concern of the public are essential to the improvement of the environment, and sponsor and support public information programs.~~
- ~~5. The level of public access should be appropriate to the degree of uniqueness or fragility of the geological and biological characteristics of the shoreline (e.g., wetlands, spawning areas).~~
- ~~6. Discourage intensive development of shoreline areas that are identified as hazardous or environmentally sensitive.~~

~~General Regulations~~

- ~~1. Critical areas in shoreline jurisdiction are regulated by the critical areas regulations (which were adopted on February 27, 2006, by Ordinance No. 398) codified under Chapter 20.80 SMC, which is herein incorporated into this SMP with the exceptions of the following:~~
 - ~~a. SMC 20.80.030.~~
 - ~~b. SMC 20.80.040.~~
 - ~~c. Chapter 20.80 SMC, Subchapter 4, Wetlands.~~
 - ~~d. SMC 20.80.310.~~
 - ~~e. SMC 20.80.320.~~
 - ~~f. SMC 20.80.330.~~
 - ~~g. SMC 20.80.340.~~
 - ~~h. SMC 20.80.350.~~
- ~~2. The provisions of Chapter 20.80 SMC, Critical Areas, must be factored into decisions regarding development within the regulated shoreline and associated critical areas.~~
- ~~3. All shoreline uses and activities shall be located, designed, constructed, and managed to protect or at least not adversely affect those natural features which are valuable, fragile, or unique in the region. They should also facilitate the appropriate intensity of human use of such features, including but not limited to:~~
 - ~~a. Wetlands, including but not limited to marshes, bogs, and swamps;~~

b.— Fish and wildlife habitats, including streams and wetlands, nesting areas and migratory routes, spawning areas, and the presence of proposed or listed species;

c.— Natural or manmade vistas or features;

d.— Flood hazard areas; and/or

e.— Geologically hazardous areas, including erosion, landslide, and seismic hazard areas.

4.— The standards of the City of Shoreline's critical area regulations shall apply within the shoreline jurisdiction, where critical areas are present. If there are any conflicts or unclear distinctions between the Master Program and the City's critical areas regulations, the most restrictive requirements apply as determined by the City.

B.— Floodplain Management. The following policies and regulations must be factored into decisions regarding all flood management planning and development within that portion of the 100-year floodplain that falls within Shoreline's shoreline jurisdiction (within 200 feet of OHWM). Floodplain management involves actions taken with the primary purpose of preventing or mitigating damage due to flooding. Floodplain management can involve planning and zoning to control development, either to reduce risks to human life and property, or to prevent development from contributing to the severity of flooding. Floodplain management can also address the design of developments to reduce flood damage and the construction of flood controls, such as dikes, dams, engineered floodways, and bioengineering.

Policy

1.— Flood management planning should be undertaken in a coordinated manner among affected property owners and public agencies and should consider the entire coastal system. This planning should consider off-site impacts such as erosion, accretion, and/or flood damage that might occur if shore protection structures are constructed.

2.— Nonstructural control solutions are preferred over structural flood control devices, and should be used wherever possible when control devices are needed. Nonstructural controls include such actions as prohibiting or limiting development in areas that are historically flooded or limiting increases in peak flow runoff from new upland development. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to reduce the damage.

3.— Substantial stream channel modification, realignment, and straightening should be discouraged as a means of flood protection.

4.— Where possible, public access should be integrated into the design of publicly financed flood management facilities.

~~5.—The City supports the protection and preservation of the aquatic environment and the habitats it provides, and advocates balancing these interests with the City's intention to ensure protection of life and property from damage caused by flooding.~~

~~6.—Development should avoid potential channel migration impacts.~~

~~Regulations~~

~~1.—The City shall require and utilize the following information as appropriate during its review of shoreline flood management projects and programs:~~

~~a.—Stream channel hydraulics and floodway characteristics, up and downstream from the project area;~~

~~b.—Existing shoreline stabilization and flood protection works within the area;~~

~~c.—Physical, geological, and soil characteristics of the area;~~

~~d.—Biological resources and predicted impact to coastal ecology, including fish, vegetation, and animal habitat;~~

~~e.—Predicted impact upon area, shore, and hydraulic processes, adjacent properties, and shoreline and water uses; and/or~~

~~f.—Analysis of alternative flood protection measures, both nonstructural and structural.~~

~~2.—The City shall require engineered design of flood protection works where such projects may cause interference with normal geohydraulic processes, off-site impacts, or adverse effects to shoreline resources and uses. Nonstructural methods of flood protection shall be preferred over structural solutions when the relocation of existing shoreline development is not feasible.~~

~~C.—**Wetlands.** Presently, the wetlands within the City's shoreline jurisdiction have not been delineated and rated using current State standards. As the wetland category combined with the habitat functions rating defines the required buffers using current State standards, the requirements of this section apply to any new development application in the vicinity of an associated wetland. At that time, the wetland and its buffers would need to be categorized and delineated and the activities would be regulated using the following standards.~~

~~1.—**Policy.**~~

~~a.—Wetland ecosystems serve many important ecological and environmental functions, which are beneficial to the public welfare. Such functions include, but are not limited to, providing food, breeding, nesting and/or rearing habitat for fish and wildlife; recharging and discharging ground water; contributing to stream flow during low flow periods; stabilizing stream banks and shorelines; storing storm and floodwaters to reduce flooding and erosion; and improving water quality through biofiltration, adsorption, and retention and transformation of sediments, nutrients, and toxicants; as well as education and scientific research.~~

- ~~b.—Wetland areas should be identified according to established identification and delineation procedures and provided appropriate protection consistent with the policies and regulations of this Master Program.~~
- ~~c.—The greatest protection should be provided to wetlands of exceptional resource value, which are defined as those wetlands that include rare, sensitive, or irreplaceable systems such as:~~
- ~~i.—Documented or potential habitat for an endangered, threatened, or sensitive species;~~
 - ~~ii.—High quality native wetland systems as determined by the Washington State Natural Heritage Program;~~
 - ~~iii.—Significant habitat for fish or aquatic species as determined by the appropriate State resource agency;~~
 - ~~iv.—Diverse wetlands exhibiting a high mixture of wetland classes and subclasses as defined in the U.S. Fish and Wildlife Service classification system;~~
 - ~~v.—Mature forested swamp communities; and/or~~
 - ~~vi.—Sphagnum bogs or fens.~~
- ~~d.—A wetland buffer of adequate width should be maintained between a wetland and the adjacent development to protect the functions and integrity of the wetland.~~
- ~~e.—The width of the established buffer zone should be based upon the functions and sensitivity of the wetland, the characteristics of the existing buffer, and the potential impacts associated with the adjacent land use.~~
- ~~f.—All activities that could potentially affect wetland ecosystems should be controlled both within the wetland and the buffer zone to prevent adverse impacts to the wetland functions.~~
- ~~g.—No wetland alteration should be authorized unless it can be shown that the impact is both unavoidable and necessary, and that resultant impacts are offset through the deliberate restoration, creation, or enhancement of wetlands.~~
- ~~h.—Wetland restoration, creation, and enhancement projects should result in no net loss of wetland acreage and functions. Where feasible, wetland quality should be improved.~~
- ~~i.—Wetlands that are impacted by activities of a temporary nature should be restored immediately upon project completion.~~
- ~~j.—In-kind replacement of functional wetland values is preferred. Where in-kind replacement is not feasible or practical due to the characteristics of the existing wetland, substitute ecological resources of equal or greater value should be provided.~~

- k.—~~On-site replacement of wetlands is preferred. Where on-site replacement of a wetland is not feasible or practical due to characteristics of the existing location, replacement should occur within the same watershed and in as close proximity to the original wetland as possible.~~
- l.—~~Where possible, wetland restoration, creation, and enhancement projects should be completed prior to wetland alteration. In all other cases, replacement should be completed prior to use or occupancy of the activity or development.~~
- m.—~~Applicants should develop comprehensive mitigation plans to ensure long-term success of the wetland restoration, creation, or enhancement project. Such plans should provide for sufficient monitoring and contingencies to ensure wetland persistence.~~
- n.—~~Applicants should demonstrate sufficient scientific expertise, supervisory capability, and financial resources to complete and monitor the mitigation project.~~
- o.—~~Proposals for restoration, creation, or enhancement should be coordinated with appropriate resource agencies to ensure adequate design and consistency with other regulatory requirements.~~
- p.—~~Activities should be prevented in wetland buffer zones except where such activities have no adverse impacts on wetland ecosystem functions.~~
- q.—~~Wetland buffer zones should be retained in their natural condition unless revegetation is necessary to improve or restore the buffer.~~
- r.—~~Land use should be regulated to avoid adverse effects on wetlands and maintain the functions and values of wetlands throughout Shoreline, and review procedures should be established for development proposals in and adjacent to wetlands.~~

2.—Regulations.

- a.—**Identification and Delineation.** ~~Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved Federal wetland delineation manual and applicable regional supplements. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this chapter. Wetland delineations are valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary.~~
- b.—**Rating.** ~~Wetlands shall be rated according to the Washington Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-06-025, or as revised and Wetlands Guidance for Small Cities Western approved by Ecology), which contains the definitions and methods for determining whether the criteria below are met.~~

i. ~~**Category I.** Category I wetlands are: (1) relatively undisturbed estuarine wetlands larger than one acre; (2) wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high quality wetlands; (3) bogs; (4) mature and old-growth forested wetlands larger than one acre; (5) wetlands in undisturbed coastal lagoons; and (6) wetlands that perform many functions well (scoring 70 points or more). These wetlands: (1) represent unique or rare wetland types; (2) are more sensitive to disturbance than most wetlands; (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions.~~

ii. ~~**Category II.** Category II wetlands are: (1) estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre; (2) interdunal wetlands larger than one acre; (3) disturbed coastal lagoons or (4) wetlands with a moderately high level of functions (scoring between 51 and 69 points).~~

iii. ~~**Category III.** Category III wetlands are: (1) wetlands with a moderate level of functions (scoring between 30 and 50 points); and (2) interdunal wetlands between 0.1 and one acre. Wetlands scoring between 30 and 50 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.~~

iv. ~~**Category IV.** Category IV wetlands have the lowest levels of functions (scoring fewer than 30 points) and are often heavily disturbed. These are wetlands that we should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.~~

e. ~~**Illegal Modifications.** Wetland rating categories shall not change due to illegal modifications made by the applicant or with the applicant's knowledge.~~

~~**3. Regulated Activities.**~~

a. ~~For any regulated activity, a critical areas report (see SMC 20.80.110) may be required to support the requested activity.~~

b. ~~The following activities are regulated if they occur in a regulated wetland or its buffer:~~

i. ~~The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;~~

ii. ~~The dumping of, discharging of, or filling with any material;~~

iii. ~~The draining, flooding, or disturbing of the water level or water table;~~

iv. ~~Pile driving;~~

v. ~~The placing of obstructions;~~

- ~~vi.—The construction, reconstruction, demolition, or expansion of any structure;~~
- ~~vii.—The destruction or alteration of wetland vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland;~~
- ~~viii.—“Class IV—General Forest Practices” under the authority of the “1992 Washington State Forest Practices Act Rules and Regulations,” WAC 222-12-030, or as thereafter amended; and/or~~
- ~~ix.—Activities that result in:

 - ~~(A)—A significant change of water temperature;~~
 - ~~(B)—A significant change of physical or chemical characteristics of the sources of water to the wetland;~~
 - ~~(C)—A significant change in the quantity, timing, or duration of the water entering the wetland; and/or~~
 - ~~(D)—The introduction of pollutants.~~~~
- ~~c.—**Subdivisions.** The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:

 - ~~i.—Land that is located wholly within a wetland or its buffer may not be subdivided; and~~
 - ~~ii.—Land that is located partially within a wetland or its buffer may be subdivided; provided, that an accessible and contiguous portion of each new lot is:

 - ~~(A)—Located outside of the wetland and its buffer; and~~
 - ~~(B)—Meets the minimum lot size requirements of SMC Table 20.50.020(1).~~~~~~
- ~~d.—**Activities Allowed in Wetlands.** The activities listed below are allowed in wetlands. These activities do not require submission of a critical area report, except where such activities result in a loss of the functions and values of a wetland or wetland buffer. These activities include:

 - ~~i.—Those activities and uses conducted pursuant to the Washington State Forest Practices Act and its rules and regulations, WAC 222-12-030, where State law specifically exempts local authority, except those developments requiring local approval for Class 4—General Forest Practice Permits (conversions) as defined in Chapter 76.09 RCW and Chapter 222-12 WAC.~~
 - ~~ii.—Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing wetland.~~
 - ~~iii.—The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.~~~~

~~iv.—Drilling for utilities/utility corridors under a wetland, with entrance/exit portals located completely outside of the wetland buffer; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.~~

~~v.—Enhancement of a wetland through the removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand removal unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.~~

~~vi.—Educational and scientific research activities.~~

~~vii.—Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way; provided, that the maintenance or repair does not expand the footprint of the facility or right-of-way.~~

~~4.—Wetland Buffers.~~

~~a.—**Buffer Requirements.** The standard buffer widths in Table 20.230.031 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the Washington State Wetland Rating System for Western Washington.~~

~~i.—The use of the standard buffer widths requires the implementation of the measures in Table 20.230.032, where applicable, to minimize the impacts of the adjacent land uses.~~

~~ii.—If an applicant chooses not to apply the mitigation measures in Table 20.230.032, then a 33 percent increase in the width of all buffers is required. For example, a 75-foot buffer with the mitigation measures would be a 100-foot buffer without them.~~

~~iii.—The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.~~

iv.—Additional buffer widths are added to the standard buffer widths. For example, a Category I wetland scoring 32 points for habitat function would require a buffer of 225 feet (75 + 150).

Table 20.230.031 Wetland Buffer Requirements for Western Washington

Wetland Category	Standard Buffer Width	Additional buffer width if wetland scores 21—25 habitat points	Additional buffer width if wetland scores 26—29 habitat points	Additional buffer width if wetland scores 30—36 habitat points
Category I: Based on total score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Forested	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Estuarine	150 ft	NA	NA	NA
Category II: Based on score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category III (all)	60 ft	Add 45 ft	Add 105 ft	NA
Category IV (all)	40 ft	NA	NA	NA

**Table 20.230.032 Required measures to minimize impacts to wetlands
(Measures are required, where applicable to a specific proposal)**

Disturbance	Required Measures to Minimize Impacts
Lights	Direct lights away from wetland.
Noise	Locate activity that generates noise away from wetland. If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source. For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10 ft heavily vegetated buffer strip immediately adjacent to the outer wetland buffer.
Toxic runoff	Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered. Establish covenants limiting use of pesticides within 150 ft of wetland. Apply integrated pest management.
Stormwater runoff	Retrofit stormwater detention and treatment for roads and existing adjacent development.

**Table 20.230.032 Required measures to minimize impacts to wetlands
(Measures are required, where applicable to a specific proposal)**

Disturbance	Required Measures to Minimize Impacts
	Prevent channelized flow from lawns that directly enters the buffer. Use Low Intensity Development techniques (per PSAT publication on LID techniques).
Change in water regime	Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.
Pets and human disturbance	Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion. Place wetland and its buffer in a separate tract or protect with a conservation easement.
Dust	Use best management practices to control dust.
Disruption of corridors or connections	Maintain connections to off-site areas that are undisturbed. Restore corridors.

v. ~~**Increased Wetland Buffer Area Width.** Buffer widths shall be increased on a case-by-case basis as determined by the Administrator when a larger buffer is necessary to protect wetland functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the wetland. The documentation must include, but not be limited to, the following criteria:~~

~~(A) The wetland is used by a plant or animal species listed by the Federal government or the State as endangered, threatened, candidate, sensitive, monitored or documented priority species or habitats, or essential or outstanding habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or~~

~~(B) The adjacent land is susceptible to severe erosion, and erosion control measures will not effectively prevent adverse wetland impacts; or~~

~~(C) The adjacent land has minimal vegetative cover or slopes greater than 30 percent.~~

vi. ~~Buffer averaging to improve wetland protection may be permitted when all of the following conditions are met:~~

~~(A) The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a “dual-rated” wetland with a Category I area adjacent to a lower rated area;~~

~~(B) The buffer is increased adjacent to the higher functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion as demonstrated by a critical areas report from a qualified wetland professional;~~

~~(C) The total area of the buffer after averaging is equal to the area required without averaging; and~~

~~(D) The buffer at its narrowest point is never less than either three fourths of the required width or 75 feet for Category I and II, 50 feet for Category III, and 25 feet for Category IV, whichever is greater.~~

~~vii. Averaging through a shoreline variance may be permitted when all of the following are met:~~

~~(A) There are no feasible alternatives to the site design that could be accomplished without buffer averaging;~~

~~(B) The averaged buffer will not result in degradation of the wetland’s functions and values as demonstrated by a critical areas report from a qualified wetland professional;~~

~~(C) The total buffer area after averaging is equal to the area required without averaging; and~~

~~(D) The buffer at its narrowest point is never less than either three fourths of the required width or 75 feet for Category I and II, 50 feet for Category III and 25 feet for Category IV, whichever is greater.~~

~~b. To facilitate long range planning using a landscape approach, the Administrator may identify and preassess wetlands using the rating system and establish appropriate wetland buffer widths for such wetlands. The Administrator will prepare maps of wetlands that have been preassessed in this manner.~~

~~c. **Measurement of Wetland Buffers.** All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland. Only fully vegetated buffers will be considered. Lawns, walkways, driveways, and other mowed or paved areas will not be considered buffers or included in buffer area calculations.~~

~~d. **Buffers on Mitigation Sites.** All mitigation sites shall have buffers consistent with the buffer requirements of this chapter. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.~~

e.—**Buffer Maintenance.** Except as otherwise specified or allowed in accordance with this chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, removal of invasive nonnative weeds is required for the duration of the mitigation bond (subsection (C)(6)(h)(ii)(A)(8) of this section).

f.—**Impacts to Buffers.** Requirements for the compensation for impacts to buffers are outlined in subsection (C)(6) of this section.

g.—**Overlapping Critical Area Buffers.** If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.

h.—**Allowed Buffer Uses.** The following uses may be allowed within a wetland buffer in accordance with the review procedures of this chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:

i.—**Conservation and Restoration Activities.** Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.

ii.—**Passive Recreation.** Passive recreation facilities designed and in accordance with an approved critical area report, including:

(A)—Walkways and trails; provided, that those pathways are limited to minor crossings having no adverse impact on water quality. They should be generally parallel to the perimeter of the wetland, located only in the outer 25 percent of the wetland buffer area, and located to avoid removal of significant trees. They should be limited to pervious surfaces no more than five feet in width for pedestrian use only. Raised boardwalks utilizing nontreated pilings may be acceptable; and/or

(B)—Wildlife viewing structures.

iii.—Educational and scientific research activities.

iv.—Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way; provided, that the maintenance or repair does not increase the footprint or use of the facility or right-of-way.

v.—The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops, and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.

vi.—Drilling for utilities/utility corridors under a buffer, with entrance/exit portals located completely outside of the wetland buffer boundary; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the

soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.

vii.—~~Enhancement of a wetland buffer through the removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand removal. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.~~

viii.—~~**Stormwater Management Facilities.** Stormwater management facilities are limited to stormwater dispersion outfalls and bioswales. They may be allowed within the outer 25 percent of the buffer of Category III or IV wetlands only; provided, that:~~

~~(A) No other location is feasible;~~

~~(B) The location of such facilities will not degrade the functions or values of the wetland; and~~

~~(C) Stormwater management facilities are not allowed in buffers of Category I or II wetlands.~~

ix.—~~**Nonconforming Uses.** Repair and maintenance of nonconforming uses or structures, where legally established within the buffer, provided they do not increase the degree of nonconformity.~~

~~i.—**Signs and Fencing of Wetlands and Buffers.**~~

~~i.—**Temporary Markers.** The outer perimeter of the wetland buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary “clearing limits” fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the Administrator prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.~~

~~ii.—**Permanent Signs.** As a condition of any permit or authorization issued pursuant to this chapter, the Administrator may require the applicant to install permanent signs along the boundary of a wetland or buffer.~~

~~(A) Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or another nontreated material of equal durability. Signs must be posted at an interval of one per lot or every 50 feet, whichever is less, and must be maintained by the property owner in perpetuity. The signs shall be worded as follows or with alternative language approved by the Administrator:~~

Protected Wetland Area Do Not Disturb

Contact the City of Shoreline Regarding Uses, Restrictions, and Opportunities for Stewardship (B) — The provisions of subsection (C)(4)(i)(ii)(A) of this section may be modified as necessary to assure protection of sensitive features.

iii. — **Fencing.** Fencing installed as part of a proposed activity or as required in this subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat.

5. — **Critical Area Report for Wetlands.**

a. — If the Administrator determines that the site of a proposed development includes, is likely to include, or is adjacent to a wetland, a wetland report, prepared by a qualified professional, shall be required. The expense of preparing the wetland report shall be borne by the applicant.

b. — **Minimum Standards for Wetland Reports.** The written report and the accompanying plan sheets shall contain the following information, at a minimum:

i. — The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the wetland critical area report; a description of the proposal; identification of all the local, State, and/or Federal wetland-related permit(s) required for the project; and a vicinity map for the project.

ii. — A statement specifying the accuracy of the report and all assumptions made and relied upon.

iii. — Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.

iv. — A description of the methodologies used to conduct the wetland delineations, rating system forms, or impact analyses including references.

v. — Identification and characterization of all critical areas, wetlands, water bodies, shorelines, floodplains, and buffers on or adjacent to the proposed project area. For areas off site of the project site, estimate conditions within 300 feet of the project boundaries using the best available information.

vi. — For each wetland identified on site and within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, per wetland ratings (subsection (C)(2)(b) of this section); required buffers; hydrogeomorphic classification; wetland acreage based on a professional survey from the field delineation (acreages for on-site portion and entire wetland area including off-site portions); Cowardin classification of vegetation communities; habitat elements; soil conditions based on site assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of

~~inlet/outlets (if they can be legally accessed), estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site.~~

~~vii.—A description of the proposed actions, including an estimation of acreages of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative.~~

~~viii.—An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development.~~

~~ix.—A description of reasonable efforts made to apply mitigation sequencing pursuant to Mitigation Sequencing (subsection (C)(6)(a) of this section) to avoid, minimize, and mitigate impacts to critical areas.~~

~~x.—A discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land-use activity.~~

~~xi.—A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions.~~

~~c.—An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.~~

~~d.—A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:~~

~~i.—Maps (to scale) depicting delineated and surveyed wetland and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates);~~

~~ii.—A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project; and~~

~~iii.—A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.~~

6.—Compensatory Mitigation.

~~a. **Mitigation Sequencing.** Before impacting any wetland or its buffer, an applicant shall demonstrate that the following actions have been taken. Actions are listed in the order of preference:~~

- ~~i. Avoid the impact altogether by not taking a certain action or parts of an action.~~
- ~~ii. Minimize 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.~~
- ~~iii. Rectify the impact by repairing, rehabilitating, or restoring the affected environment.~~
- ~~iv. Reduce or eliminate the impact over time by preservation and maintenance operations.~~
- ~~v. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.~~
- ~~vi. Monitor the required compensation and take remedial or corrective measures when necessary.~~

~~b. **Requirements for Compensatory Mitigation.**~~

- ~~i. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State — Part 2: Developing Mitigation Plans (Version 1), Ecology Publication No. 06-06-011b, Olympia, WA, March 2006 or as revised.~~
- ~~ii. Mitigation ratios shall be consistent with subsection (C)(6)(g) of this section.~~
- ~~iii. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft” (Ecology Publication No. 10-06-011, February 2011, or as revised) consistent with subsection (C)(6)(h) of this section.~~

~~c. **Compensating for Lost or Affected Functions.** Compensatory mitigation shall address the functions affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions. The goal shall be for the compensatory mitigation to provide similar wetland functions as those lost, except when either:~~

- ~~i. The lost wetland provides minimal functions, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington State watershed assessment plan or protocol;~~
~~or~~
- ~~ii. Out-of-kind replacement of wetland type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.~~

d. **Preference of Mitigation Actions.** Methods to achieve compensation for wetland functions shall be approached in the following order of preference:

i. Restoration (reestablishment and rehabilitation) of wetlands.

ii. Creation (establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of nonnative species. This should be attempted only when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive to the wetland community that is anticipated in the design.

iii. Enhancement of significantly degraded wetlands in combination with restoration or creation. Enhancement alone will result in a loss of wetland acreage and is less effective at replacing the functions lost. Enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

iv. **Preservation.** Preservation of high quality, at-risk wetlands as compensation is generally acceptable when done in combination with restoration, creation, or enhancement; provided, that a minimum of 1:1 acreage replacement is provided by reestablishment or creation. Preservation of high quality, at-risk wetlands and habitat may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

(A) Wetland impacts will not have a significant adverse impact on habitat for listed fish, or other ESA listed species;

(B) There is no net loss of habitat functions within the watershed or basin;

(C) Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost; and

(D) The impact area is small (generally less than one-half acre) and/or impacts are occurring to a low-functioning system (Category III or IV wetland).

All preservation sites shall include buffer areas adequate to protect the habitat and its functions from encroachment and degradation.

e. **Type and Location of Compensatory Mitigation.** Unless it is demonstrated that a higher level of ecological functioning would result from an alternative approach, compensatory mitigation for ecological functions shall be either in kind and on site, or in kind and within the same stream reach, sub-basin, or drift cell (if estuarine wetlands are impacted). Compensatory mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of the following apply:

i. There are no reasonable opportunities on site or within the sub-drainage basin (e.g., on-site options would require elimination of high functioning upland habitat), or opportunities on site or

~~within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);~~

~~ii.—Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and~~

~~iii.—Off-site locations shall be in the same sub-drainage basin unless:~~

~~(A)—Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site; or~~

~~(B)—Credits from a State-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the bank's certification.~~

~~iv.—The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland refers to a compensation wetland (e.g., created or enhanced) that does not match the type of existing wetland that would be found in the geomorphic setting of the site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting).~~

~~Likewise, it should not provide exaggerated morphology or require a berm or other engineered structures to hold back water. For example, excavating a permanently inundated pond in an existing seasonally saturated or inundated wetland is one example of an enhancement project that could result in an atypical wetland. Another example would be excavating depressions in an existing wetland on a slope, which would require the construction of berms to hold the water.~~

~~f.—**Timing of Compensatory Mitigation.** It is preferred that compensatory mitigation projects be completed prior to activities that will disturb wetlands. At the least, compensatory mitigation shall be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.~~

~~i.—The Administrator may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability~~

of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window, or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, or general welfare of the public. The request for the temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification must be verified and approved by the City.

g. Wetland Mitigation Ratios.

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation	Enhancement	Preservation
Category I: Bog, Natural Heritage site	Not considered possible	6:1	Case by case	10:1
Category I: Mature forested	6:1	12:1	24:1	24:1
Category I: Based on functions	4:1	8:1	16:1	20:1
Category II	3:1	6:1	12:1	20:1
Category III	2:1	4:1	8:1	15:1
Category IV	1.5:1	3:1	6:1	10:1

h. Compensatory Mitigation Plan. When a project involves wetland and/or buffer impacts, a compensatory mitigation plan prepared by a qualified professional shall be required, meeting the following minimum standards:

Ratios for rehabilitation and enhancement may be reduced when combined with 1:1 replacement through creation or reestablishment. See Table 1a or 1b, Wetland Mitigation in Washington State—Part 1: Agency Policies and Guidance—Version 1 (Ecology Publication No. 06-06-011a, Olympia, WA, March 2006 or as revised).

i. Wetland Critical Area Report. A critical area report for wetlands must accompany or be included in the compensatory mitigation plan and include the minimum parameters described in the “Minimum Standards for Wetland Reports” section of this chapter.

ii. Compensatory Mitigation Report. The report must include a written report and plan sheets that must contain, at a minimum, the elements listed below. Full guidance can be found

~~in Wetland Mitigation in Washington State—Part 2: Developing Mitigation Plans (Version 1)
(Ecology Publication No. 06-06-011b, Olympia, WA, March 2006 or as revised).~~

~~(A) The written report must contain, at a minimum:~~

~~(1) The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the compensatory mitigation report; a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all the local, State, and/or Federal wetland-related permit(s) required for the project; and a vicinity map for the project;~~

~~(2) Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands;~~

~~(3) Description of the existing wetland and buffer areas proposed to be impacted. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on wetland ratings (subsection (C)(2)(b) of this section);~~

~~(4) Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions. Estimate future conditions in this location if the compensation actions are not undertaken (i.e., how would this site progress through natural succession?);~~

~~(5) A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands;~~

~~(6) A description of the proposed mitigation construction activities and timing of activities;~~

~~(7) A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands);~~

~~(8) A bond estimate for the entire compensatory mitigation project, including the following elements: site preparation, plant materials, construction materials, installation oversight, maintenance twice per year for up to five years, annual monitoring field work and reporting, and contingency actions for a maximum of the total required number of years for monitoring; and~~

~~(9) Proof of establishment of notice on title for the wetlands and buffers on the project site, including the compensatory mitigation areas.~~

- ~~(B) The scaled plan sheets for the compensatory mitigation must contain, at a minimum:~~
- ~~(1) Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions;~~
 - ~~(2) Existing topography, ground-~~proofed~~, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Also existing cross-sections of on-site wetland areas that are proposed to be impacted, and cross-section(s) (estimated one-foot intervals) for the proposed areas of wetland or buffer compensation;~~
 - ~~(3) Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Also, illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions;~~
 - ~~(4) Conditions expected from the proposed actions on-site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes;~~
 - ~~(5) Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this chapter;~~
 - ~~(6) A plant schedule for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, total number of each species by community type, timing of installation; and~~
 - ~~(7) Performance standards (measurable standards reflective of years post-installation) for upland and wetland communities, monitoring schedule, and maintenance schedule and actions by each biennium.~~
- ~~i. **Buffer Mitigation Ratios.** Impacts to buffers shall be mitigated at a 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.~~

20.230.040 Public access.

Public access to the shoreline is the physical ability of the general public to reach and touch the water's edge and/or the ability to have a view of the water and the shoreline from upland locations. There are a variety of types of public access, such as picnic areas, pathways and trails, promenades, bridges, street ends, ingress and egress, and parking.

A. Public Access Policies.

1. Public access provisions should be incorporated into all private and public developments. Exceptions may be considered for the following types of uses:
 - a. A single-family residence;
 - b. An individual multifamily structure containing four or less dwelling units; and/or
 - c. Where deemed inappropriate by the Director.
2. Development uses and activities on or near the shoreline should not impair or detract from the public's visual or physical access to the water.
3. Public access to the shoreline should be sensitive to the unique characteristics of the shoreline and should preserve the natural character and quality of the environment and adjacent wetlands; public access should assure no net loss of ecological functions.
4. Where appropriate, water-oriented public access should be provided as close as possible to the water's edge without adversely affecting a sensitive environment.
5. Except for access to the water, the preferred location for placement of public access trails is as close to the furthest landward edge of the native vegetation zone as practical. Public access facilities should provide auxiliary facilities, such as parking and sanitation, when appropriate, and shall be designed for accessibility by people with disabilities. Publicly owned shorelines should be limited to water-dependent or public recreation uses, otherwise such shorelines should remain protected open space.
6. Public access afforded by public right-of-way street ends adjacent to the shoreline should be preserved, maintained, and enhanced.
7. Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy. This may include providing a physical separation to reinforce the distinction between public and private space, providing adequate space, through screening with landscape planting or fences, or other means.
8. Public views from the shoreline upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excess removal of vegetation that partially impairs views.
9. Public access facilities should be constructed of environmentally friendly materials and support healthy natural processes, whenever financially feasible and possible.
10. Public access facilities should be maintained to provide a clean, safe experience, and to protect the environment.

B. Public Access Regulations.

1. Public access shall be required for all shoreline development and uses, except for a single-family residence or residential projects containing four or less dwelling units.

2. Requirement of public access to shorelines does not confer the right to enter upon or cross private property, except for dedicated and marked public easements.
3. A shoreline development or use that does not provide public access may be authorized provided the applicant demonstrates and the Director determines that one or more of the following provisions apply:
 - a. Unavoidable health or safety hazards to the public exist that cannot be prevented by any feasible means;
 - b. Security requirements cannot be satisfied through the application of alternative design features or other solutions;
 - c. The cost of providing the access, easement, or an alternative amenity is unreasonably disproportionate to the total long-term cost of the proposed development;
 - d. Unacceptable environmental harm, such as damage to fish spawning areas, will result from the public access that cannot be mitigated; and/or
 - e. Significant conflict between the proposed access and adjacent uses would occur and cannot be mitigated.
4. The applicant must also demonstrate that all reasonable means to public access have been exhausted, including but not limited to:
 - a. Regulating access by such means as limiting use to daylight hours;
 - b. Designing separation of uses and activities with such means as fences, terracing, hedges, or landscaping; and/or
 - c. Providing access that is physically separated from the proposal, such as a nearby street end, an off-site viewpoint, or a trail system.
5. Public access sites shall be made barrier free for people with disabilities.
6. Public access sites shall be connected directly to the nearest public street.
7. Required public access sites shall be fully developed and available for public use at the time of occupancy or use of the development or activity.
8. Public access easements and permit conditions shall be recorded on the deed where applicable or on the face of a plat or short plat as a condition running with the land. Said recording with the King County Recorder's office shall occur at the time of permit approval. ~~(RCW 58.17.110).~~
9. The standard Washington State approved logo and other approved signs that indicate the public's right of access and hour of access shall be constructed, installed, and maintained by the applicant in conspicuous locations at public access sites. Signs controlling or restricting public access may be approved as a condition of permit approval.

10. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties to the shoreline and adjoining waters.
11. Physical public access shall be designed to prevent significant impacts to natural systems by employing low impact development techniques.

Subchapter 2.

Specific Shoreline Use Policies and Regulations

20.230.070 General.

Specific shoreline use provisions are more detailed than those listed in general policies and regulations. These use policies and regulations apply to the identified use categories and provide a greater level of detail for uses and their impacts. The policies establish the shoreline management principles that apply to each use category and serve as a bridge between the various elements listed in SMC 20.200.040 and the use regulations that follow.

This subchapter also includes those activities that modify the configuration or qualities of the shoreline area. Shoreline modification activities are, by definition, undertaken in support of or in preparation for a permitted shoreline use. Typically, shoreline modification activities relate to construction of a physical element such as a breakwater, dredged basins, landfilling, etc., but they can include other actions such as clearing, grading, application of chemicals, etc.

Shoreline modification policies and regulations are intended to prevent, reduce, and mitigate the negative environmental impacts of proposed shoreline modifications consistent with the goals of the SMAShoreline Management Act. A proposed development must meet all of the regulations for both applicable uses and activities as well as the general and environment designation regulations.

The following policies and regulations apply to specific types of development that may be proposed in the shoreline jurisdiction of the City. A proposal can consist of more than one type of development. In addition, all specific shoreline development must be consistent with the following shoreline environmental designations; the goals and objectives of Chapter 20.200 SMC; ~~and the general policies and regulations contained in Chapter 20.230 SMC, Subchapter 1-;~~ and the critical areas regulations contained in Chapter 20.240 SMC.

20.230.080 Shoreline environmental designations. — ~~Map included in Appendix D, page 205.~~¹

Aquatic Environment (A). Encompasses all submerged lands from OHWM to the middle of Puget Sound. The purpose of this designation is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM ~~Ordinary high water mark~~. New over-water structures are allowed only for water-dependent uses, public access, or ecological restoration and must be limited to the minimum necessary to support the structure's intended use.

Urban Conservancy Environment (UC). The purpose of this designation is to protect and restore relatively undeveloped or unaltered shorelines to maintain open space, floodplains, or habitat, while allowing a variety of compatible uses. This designation shall apply to shorelines that retain important ecological functions, even if partially altered. These shorelines are suitable for low intensity development, uses that are a combination of water-related or water enjoyment uses, or uses that allow substantial numbers of people access to the shoreline. Any undesignated shorelines are automatically assigned an urban conservancy designation.

Shoreline Residential Environment (SR). The purpose of this designation is to accommodate residential development and accessory structures that are consistent with this ~~Shoreline~~-Master Program. This designation shall apply to shorelines that do not meet the criteria for urban conservancy and that are characterized by single-family or multifamily residential development or are planned and platted for residential development.

Waterfront Residential Environment (WR). The purpose of this designation is to distinguish between residential portions of the coastline where natural and manmade features preclude building within the shoreline jurisdiction and the section along 27th Avenue NW where residential properties directly abut the Puget Sound.

Characteristics of 27th Avenue NW include:

Only fully established residential property in the City of ~~Shoreline~~ directly abutting the Puget

- Sound;

- Substantial number of legally existing nonconforming lots and nonconforming structures;

- Exposure to high energy wind and wave action;

Fully armored shoreline prior to December 4, 1969, and residences occupied prior to January

- 1, 1992; and

Failure of an individual bulkhead would cause adverse effect on subject property as well as

- neighboring properties.

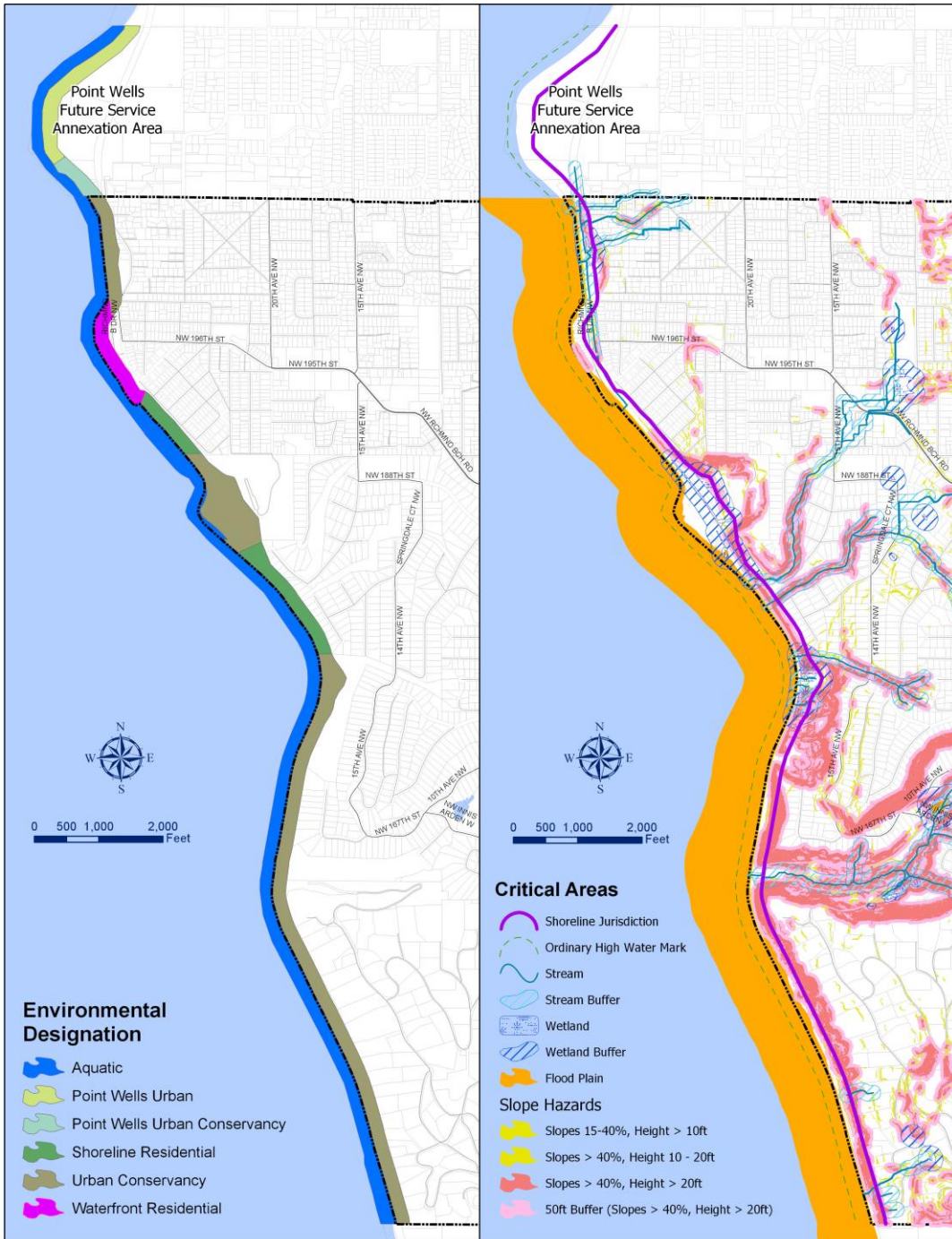
These unique circumstances and considerations warrant different regulations for 27th Avenue NW as compared to existing residential property that is cut off from the shoreline by bluffs and railroad tracks (UC and SR), and potential new residential properties in the Point Wells designations (PW and PWC).

Point Wells Urban Environment (PW). The purpose of this designation is to accommodate higher density uses while protecting existing ecological functions and restoring ecological functions that have been degraded.

Point Wells Urban Conservancy Environment (PWC). The purpose of this designation is to distinguish between differing levels of potential and existing ecological function within the Point Wells environment, and regulate uses and public access requirements appropriately.

Shoreline Environment Designations

Critical Areas



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Figure 20.230.080: Shoreline Environmental Designations and mapped critical areas.

SMC 20.230.081 Permitted Uses and Modifications.

Uses that are allowed in Tables 20.40.120 through 20.40.1650 are permitted uses in accordance with the underlying zone, this chapter, and the provisions of ~~the~~this Shoreline Master Program.

P = Permitted. Permitted uses may require shoreline substantial development permits and any other permits required by the Shoreline Municipal Code and/or other regulatory agencies.

C = Conditional Use. Conditional uses require shoreline conditional use permit and may require other permits required by the Shoreline Municipal Code and/or other regulatory agencies.

X = Prohibited.

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

Shoreline Use	<i>Shoreline Environments</i>					
	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Agriculture	X	X	X	X	X	X
Aquaculture	C	X	X	X	X	X
Boating Facilities (Boat Hoists and Launching Ramps)	P ¹	P: Boat launching ramps open to the public	P: Joint use boat launching ramps	P: Joint use boat launching ramps	X	P: Boat launching ramps open to the public
Nonresidential Development	X	X	X	X	P	P
Forest Practices	X	X	X	X	X	X
Industrial Development	X	X	X	X	P: Existing	P: Existing C: Expansion
In-Stream	P ¹	P: Part of a	P: Part of a	P: Part of a	P: Part of a	P: Part of a

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

	Shoreline Environments					
Shoreline Use	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Structures		fish habitat enhancement or a watershed restoration project	fish habitat enhancement or a watershed restoration project	fish habitat enhancement or a watershed restoration project	fish habitat enhancement or a watershed restoration project	fish habitat enhancement or a watershed restoration project
Mining	X	X	X	X	X	X
Mooring	P	X	X	X	X	X
Recreation Use (Water-related)	C: Water-dependent only	P	P	P	P: Limit to low intensity uses, passive uses	P
Recreation Facilities	C ⁹	P	P	P	P: Limit to low intensity uses, passive uses	P
Residential Developments	X	P	P	P	P	P
Signs	X ⁶	P	P	P	P	P
Permanent Solid Waste Storage or Transfer Facilities	X	X	X	X	X	X
Transportation Facilities (Roads and	X	C	P	P	C	P

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

	<i>Shoreline Environments</i>					
Shoreline Use	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Bridges)						
Transportation Facilities ³ (Railroads)	P	P	P	P	P	P
Utilities	C	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities
Unclassified Uses	C	C	C	C	C	C

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

Shoreline Modifications	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Breakwaters, Jetties, Groins, and Weirs	C ¹	X	X	X	X	X
Dredging	P ⁴ C: Related to navigation for PWU	P ⁴	P ⁴	P ⁴	P ⁴	P ⁴
Dredging Material Disposal	C	P ⁵	P ⁵	P ⁵	P ⁵	P ⁵

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

Shoreline Modifications	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Dune Modification	X	X	X	X	X	X
Piers and Docks	P ¹	P: Public	P: Joint use	P: Joint use	X	P: Existing associated with public use P: Public piers or docks C: Expansion of existing with water oriented industrial use
Structural Flood Hazard Reduction (Dikes and Levees)	X	X	X	X	X	X
Soft-Shore Stabilization	P ¹	P	P	P	P: With utilities	P
Repair, Replacement, and Maintenance of Existing Hard-Shore Armoring	P	P	P	P ⁸	P	P
Hard	X	C	C	C	X	C

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

Shoreline Modifications	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Shoreline Armoring where None Previously Existed						
Land Disturbing Activities	X	P ³	P ³	P ³	P ³	P ³
Landfilling	C ⁴	C ³	C ¹	C ¹	C ³	C ³
Shoreline Habitat and Natural Systems Enhancement Projects	P	P	P	P	P	P
Marinas	X	X	X	X	X	X

¹ Subject to the use limitations and permit requirements of the abutting upland shoreline environment designation.

² The City recognizes the Federal preemption for local permitting per the ICC Termination Act of 1995, 49 U.S.C. § 10501(b); however, for the purposes of coastal zone management consistency the railroad company would be required to comply with the policies of ~~this City of Shoreline's SMP~~ Master Program.

³ For activities associated with shoreline restoration or remediation; or limited if associated with public access improvement and allowed shoreline development.

⁴ For activities associated with shoreline or aquatic restoration or remediation.

⁵ For shoreline habitat and natural systems enhancement, fish habitat enhancement, or watershed restoration project.

⁶ Signs required by regulatory agencies for navigational operation, safety and direction purposes allowed in aquatic environment per SMC 20.230.230(B)(1).

⁷ Limited to water-dependent, public access, or shoreline stabilization activities.

⁸ This includes replacement.

⁹ Refer to SMC 20.230.130 for conditions.

20.230.082 Native Conservation Area and Building Setbacks.

The term “native conservation area” (NVCA) applies to areas where the shoreline is not armored, such as the PWC environment designation, and Richmond Beach Saltwater Park. NVCAs should be maintained in a predominantly natural, undisturbed, undeveloped, and vegetated condition, except where necessary to accommodate appurtenances to a permitted water-dependent use. The term “building setback” applies in areas where the railroad or bulkheads prohibit natural sediment transfer. In those areas, it is necessary to maintain hard-armored conditions, but further encroachment or vegetative clearing are not permitted. The area is measured horizontally from the OWHM and the structure or use.

Table 20.230.082 Native Conservation Area/Building Setbacks[†]

Shoreline Environmental Designation	Minimum Native Vegetation Conservation or <u>Building Setback Area</u>[†]
Urban Conservancy	150 feet or 50 feet from the top of a landslide hazard area, whichever is greater
Shoreline Residential	115 feet
Waterfront Residential	20 feet
Point Wells Urban	200 feet (restoration required as part of development)
Point Wells Urban Conservancy	200 feet

Bulk standards will be regulated by underlying zoning according to SMC Table 20.50.020(1). Zoning designation is R6 for UC, SR, and WR, and yet to be determined for PW and PWC.

~~[†]—The term “native conservation area” (NVCA) applies to areas where the shoreline is not armored, such as the PWC environment designation, and Richmond Beach Saltwater Park. NVCAs should be maintained in a predominantly natural, undisturbed, undeveloped, and vegetated condition, except where necessary to accommodate appurtenances to a permitted water-dependent use. The term “building setback” applies in areas where the railroad or bulkheads prohibit natural sediment transfer. In those areas, it is necessary to maintain hard-armored conditions, but further encroachment or vegetative clearing are not permitted.~~

20.230.090 Boating facilities.

Boating facilities serving two or more single-family dwelling units generally include boat launch ramps (public and private), wet and dry boat storage, and related sales and service for pleasure and commercial watercraft. For the purpose of this section, boat hoists, davits, lifts, and/or dry boat storage of private watercraft consistent with single-family residential properties are not included.

A. Boating Facilities Policies.

1. Boating facilities can have a significant impact on habitat. The impacts of boating facilities should be reviewed thoroughly before boating facilities are permitted in the shoreline jurisdiction.
2. Public and community boating facilities may be allowed. Individual private facilities are prohibited.
3. New nonresidential boating facilities may be allowed as a conditional use within the regulated shoreline. When allowed, such facilities should be designed to accommodate public access and enjoyment of the shoreline location. Depending on the scale of the facility, public access should include walkways, viewpoints, restroom facilities, and other recreational uses.
4. Dry boat storage should not be considered a water-oriented use. Only boat hoists, boat launch ramps, and access routes associated with a dry boat storage facility should be considered a water-oriented use.
5. Health, safety and welfare considerations must be addressed in application for development of boating facilities.
6. Navigation rights must be protected in development of boating facilities.
7. Extended moorage on waters of the State without a lease or permission is restricted and mitigation of impacts to navigation and access is required.

B. Boating Facilities Regulations.

1. Boating facilities may be permitted only if:
 - a. It can be demonstrated that the facility will not adversely impact fish or wildlife habitat areas or associated wetlands; and
 - b. Adequate mitigation measures ensure that there is no net loss of the functions or values of the shoreline and habitat as a result of the facility.
2. Boating facilities shall not be permitted within the following marine shoreline habitats because of their scarcity, biological productivity and sensitivity unless no alternative location is

feasible, the project would result in a net enhancement of shoreline ecological functions, and the proposal is otherwise consistent with this program:

- a. Critical saltwater habitats; and
- b. Marshes, estuaries and other wetlands.
3. Preferred ramp designs, in order of priority, are:
 - a. Open grid designs with minimum coverage of beach substrate;
 - b. Seasonal ramps that can be removed and stored upland; and
 - c. Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in beach profile.
4. Ramps shall be placed and maintained near flush with the foreshore slope.
5. Boat launches shall be designed and constructed using methods/technology that have been recognized and approved by State and Federal resource agencies as the best currently available. Rail and track systems shall be preferred over concrete ramps or similar facilities.
6. Launch access for nonmotorized watercraft shall use gravel or other permeable material. Removal of vegetation for launch access should be limited to eight feet in width.
7. Before granting approval of a permit to allow a boat launch ramp, the proponent must satisfactorily demonstrate that:
 - a. Adequate facilities for the efficient handling of sewage and litter will be provided;
 - b. The boating facilities will be designed so that structures are aesthetically compatible with or enhance shoreline features and uses; and
 - c. The boating facilities will be designed so that existing or potential public access along beaches is not blocked or made unsafe, and so that public use of the surface waters is not unduly impaired.

C. Boat Launch Ramps.

1. Boat launch ramps shall be located on stable shorelines where water depths are adequate to eliminate or minimize the need for channel maintenance activities.
2. Boat launch ramps may be permitted on accretion shoreforms provided any necessary grading is not harmful to affected resources.
3. Where boat ramps are permitted, parking and shuttle areas shall not be located on accretion shoreforms.
4. Boat launch ramps may be permitted on stable, noneroding banks where the need for shore stabilization structures is minimized.
5. Ramp structures shall be placed near flush with the foreshore slope to minimize the interruption of geohydraulic processes.

6. Boat launch sites that are open to the public shall have adequate restroom facilities operated and maintained in compliance with King County Health District regulations.

D. Dry Boat Storage.

1. Dry boat storage shall not be considered a water-oriented use and must comply with the required shoreline environment setback.
2. Only water-dependent aspects of dry boat storage, such as boat hoists and boat launch ramps, may be permitted within shoreline environment setbacks.
3. Boat launch ramps associated with dry boat storage shall be consistent with applicable requirements in this section.

20.230.095 Breakwaters, jetties, groins, and weirs.

A. Breakwaters, Jetties, Groins and Weirs Policies.

1. Breakwaters, jetties, groins, and weirs should be permitted only for water-dependent uses and only where mitigated to provide no net loss of shoreline ecological functions and processes.

B. Breakwaters, Jetties, Groins and Weirs Regulations.

1. Groins are prohibited except as a component of a professionally designed public beach management program that encompasses an entire drift sector or reach for which alternatives are infeasible, or where installed to protect or restore shoreline ecological functions or processes.
2. Jetties and breakwaters are prohibited except as an integral component of a professionally designed harbor or port. Where permitted, floating, portable or submerged breakwater structures, or smaller discontinuous structures, are preferred where physical conditions make such alternatives with less impact feasible. Defense works that substantially reduce or block littoral drift and cause erosion of downdrift shores shall not be allowed unless an adequate long-term professionally engineered beach nourishment program is established and maintained.

20.230.100 Nonresidential development.

A. Nonresidential Development Policies.

1. Priority of any nonresidential development should be given to water-dependent and water-enjoyment uses. Allowed uses include restaurants that provide a view of the sound to customers, motels and hotels that provide walking areas for the public along the shoreline, office buildings, and retail sales buildings that have a waterfront theme with public access to the beach or water views.
2. Over-the-water nonresidential development shall be prohibited.

3. Nonresidential development should be required to provide on-site physical or visual access to the shoreline, or offer other opportunities for the public to enjoy shorelines of statewide significance. If on-site access cannot be provided, off-site access should be required. Off-site access could be procured through the purchase of land or an easement at a location appropriate to provide the access deemed necessary. Nonresidential developments should include multiple-use concepts such as open space and recreation.
4. Nonresidential development in the shoreline jurisdiction should include landscaping to enhance the shoreline area.

B. Nonresidential Development Regulations.

1. Over-water construction of nonresidential uses is prohibited, with the exception of boat facilities necessary for the operation of an associated nonresidential use.
2. All nonresidential development within the shoreline area shall provide for visual and/or physical access to the shoreline by the public. Where on-site public access is feasible, nonresidential development shall dedicate, improve, and provide maintenance for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for the general public. Public access easements shall be a minimum of 25 feet in width and shall comply with the public access standards contained in the "Public Access" section of this ~~Shoreline Master Program and the Shoreline Development Code~~ SMC Title 20.
3. All nonresidential loading and service areas shall be located on the upland side of the nonresidential activity or provisions shall screen the loading and service areas from the shoreline.
4. All nonresidential development within shoreline jurisdiction shall assure no net loss of shoreline ecological functions.
5. A shoreline setback is not required to be maintained for water-dependent nonresidential development.
6. Water-dependent, nonresidential development shall maintain a shoreline setback of either 25 feet from the OHWM or 10 feet from the edge of the base flood elevation, whichever is greater. If public access is provided to the shoreline, the setback may be reduced to 10 feet from the OHWM or the edge of the base flood elevation, whichever is greater.
7. Non-water-dependent nonresidential development shall maintain a minimum setback from the OHWM consistent with Table 20.230.082.

20.230.110 In-stream structures.

A. In-Stream Structures Policies.

1. 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, hydrogeological processes, and natural scenic vistas. The location and planning 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.
2. Nonstructural and nonregulatory methods to protect, enhance, and restore shoreline ecological functions and processes and other shoreline resources should be encouraged as an alternative to structural in-stream structures.

B. In-Stream Structures Regulations.

1. Natural in-stream features such as snags, uprooted trees, or stumps should be left in place unless it can be demonstrated that they are actually causing bank erosion or higher flood stages.
2. In-stream structures shall allow for normal ground water movement and surface runoff.
3. In-stream structures shall not impede upstream or downstream migration of anadromous fish.
4. All debris, overburden and other waste materials from construction shall be disposed of in such a manner that prevents their entry into a water body.

20.230.115 Aquaculture.

A. Aquaculture Policies.

1. Potential locations for aquaculture are relatively restricted due to specific requirements for water quality, temperature, flows, oxygen content, adjacent land uses, wind protection, commercial navigation, and, in marine waters, salinity. The technology associated with some forms of present-day aquaculture is still in its formative stages and experimental. Therefore, the City recognizes the necessity for some latitude in the development of this use as well as its potential impact on existing uses and natural systems.
2. Aquaculture should not be permitted in areas where it would result in a net loss of ecological functions, adversely impact eelgrass and macroalgae, or significantly conflict with navigation and other water-dependent uses. Aquacultural facilities should be designed and located so as not to spread disease to native aquatic life, establish new nonnative species which cause significant ecological impacts, or significantly impact the aesthetic qualities of the

shoreline. Impacts to ecological functions shall be mitigated according to the mitigation sequence described in SMC 20.230.020.

B. Aquaculture Regulations.

1. Aquaculture is allowed as a conditional use in the Aquatic environment where it can be located, designed, constructed, and managed to avoid a net loss of ecological functions, not spread diseases to native aquatic life, not adversely impact native eelgrasses and macroalgae species or not significantly conflict with navigation.
2. The supporting infrastructure for aquaculture may be located landward of the aquaculture operation subject to ~~the City's land use code~~ SMC Title 20.
3. Aquaculture facilities are required to develop best management practices to minimize impacts from the construction and management of the facilities.
4. New aquatic species that are not previously cultivated in Washington State shall not be introduced into Shoreline's saltwaters or freshwaters without prior written approval of the Director of ~~WDFW~~ the Washington Department of Fish and Wildlife and the Director of the Washington Department of Health. This prohibition does not apply to: Pacific, Olympia, Kumomoto, Belon or Virginica oysters; Manila, Butter, or Littleneck clams; or Geoduck clams.
5. No aquacultural processing, except for the sorting or culling of the cultured organism and the washing or removal of surface materials or organisms, shall be permitted waterward of the ~~OHWM~~ Ordinary high water mark unless fully contained within a tending boat or barge.
6. Aquaculture wastes shall be disposed of in a manner that will ensure compliance with all applicable governmental waste disposal standards, including but not limited to the Federal Clean Water Act, Section 401, and Chapter 90.48 RCW, Water Pollution Control, as amended from time to time. No garbage, wastes, or debris shall be allowed to accumulate at the site of any aquaculture operation.

20.230.120 Parking areas.

A. Parking Area Policies.

1. Parking in shoreline areas should be minimized.
2. Parking within shoreline areas should directly serve a permitted use on the property.
3. Parking in shoreline areas should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access, and vegetation and habitat maintenance.
4. Landscaping should consist of native vegetation in order to enhance the habitat opportunities within the shorelines area.

B. Parking Regulations. Parking for specific land use activities within the City of Shoreline is subject to the requirements and standards set forth in Chapter 20.50 SMC, Subchapter 6, Parking, Access, and Circulation. In addition, the following parking requirements shall apply to all developments within shorelands:

1. The location of parking areas in or near shoreland areas shall be located outside of the minimum setbacks listed in Table 20.230.082 for the shoreline designation.
2. Parking in the shorelands must directly serve an approved shoreline use.
3. Parking shall be located on the landward side of the development unless parking is contained within a permitted structure. Where there is no available land area on the landward side of the development, parking shall extend no closer to the shoreline than a permitted structure.
4. Landscape screening is required between the parking area and all adjacent shorelines and properties as set forth in Chapter 20.50 SMC, Subchapter 7 Landscaping.
5. The landscape screening for parking areas located within the shoreline areas shall consist of native vegetation, planted prior to final approval of project, which provides effective screening two years after planting. Adequate screening or landscaping for parking lots shall consist of one or more of the following:
 - a. A strip five feet wide landscaped with trees, shrubs, and/or groundcover;
 - b. A building or enclosed structure; and/or
 - c. A strip of land not less than two and one-half feet in width that is occupied by a continuous wall, fence, plant material, or combination of both; which shall be at least three and one-half feet high at time of installation. The plant material shall be evergreen and spaced not more than one and one-half feet on center if pyramidal in shape, or not more than three feet if wider in branching habit. If the plant material is used in conjunction with a wall or fence meeting the minimum height requirements, then said material may be of any kind and spacing. More restrictive screening may be required by Chapter 20.50 SMC, Subchapters 6 and 7. Required parking area screening may be incorporated into general landscaping requirements under Chapter 20.50 SMC, Subchapters 6 and 7.
6. The requirement for screening may be waived by the Director, where screening would obstruct a significant view from public property or public roadway.
7. Parking areas shall not be permitted over the water.
8. Parking as a primary use shall be prohibited within all shoreline environments.
9. Parking or storage of recreational vehicles or travel trailers as a primary use shall be prohibited in all shoreline environments.

20.230.130 Recreational facilities.

Recreational development provides for low impact activities, such as hiking, photography, kayaking, viewing, and fishing, or more intensive uses such as parks. This section applies to both publicly and privately owned shoreline facilities.

A. Recreational Facilities Policies.

1. The coordination of local, State, and Federal recreation planning should be encouraged so as to mutually satisfy recreational needs. Shoreline recreational developments should be consistent with all adopted parks, recreation, and open space plans.
2. Parks, recreation areas, and public access points, such as hiking paths, bicycle paths, and scenic drives, should be linked.
3. Recreational developments should be located and designed to preserve, enhance, or create scenic views and vistas.
4. The use of jet-skis and similar recreational equipment should be restricted to special areas. This type of activity should be allowed only where no conflict exists with other uses and wildlife habitat.
5. All recreational developments should make adequate provisions for:
 - a. Vehicular and pedestrian access, both on site and off site;
 - b. Proper water, solid waste, and sewage disposal methods;
 - c. Security and fire protection for the use itself and for any use-related impacts to adjacent private property;
 - d. The prevention of overflow and trespass onto adjacent properties; and
 - e. Buffering of such development from adjacent private property or natural areas.

B. Recreational Facilities Regulations.

1. Valuable shoreline resources and fragile or unique areas, such as wetlands and accretion shoreforms, shall be used only for low impact and nonstructural recreation activities.
2. For recreation developments that require the use of fertilizers, pesticides, or other chemicals, the property owner shall submit plans demonstrating the methods to be used to prevent these chemical applications and resultant leachate from entering adjacent water bodies. The property owner shall be required to maintain a chemical-free swath at least 100 feet in depth adjacent to water bodies.
3. Recreational facilities shall make adequate provisions, such as screening, buffer strips, fences, and signs, to mitigate nuisance to nearby private properties.

4. No recreational buildings or structures shall be built waterward of the OHWM, except water-dependent and/or water enjoyment structures such as bridges and viewing platforms. Such uses may be permitted as a shoreline conditional use.
5. Proposals for recreational development shall include adequate facilities for water supply, sewage, and garbage disposal.

20.230.140 Residential development.

- A. 1. Residential development does not include hotels, motels, or any other type of overnight or transient housing or camping facilities.
2. A shoreline substantial development permit is not required for construction of a single-family residence by an owner, lessee, or contract purchaser for their own use or the use of their family. Single-family residential construction and accessory structures must otherwise conform to this ~~Shoreline~~-Master Program.
3. A shoreline variance or shoreline conditional use permit may be required for residential development for situations specified in ~~the~~this ~~Shoreline~~-Master Program.
4. Uses and facilities associated with residential development, which are identified as separate use activities in this ~~Shoreline~~-Master Program, such as land disturbing activities, are subject to the regulations established for those uses in this section.

B. Residential Policies.

1. Public access should be provided in accordance with SMC 20.230.040.
2. Residential development and accessory uses should be prohibited over the water.
3. New subdivisions should be encouraged to cluster dwelling units in order to preserve natural features, minimize physical impacts, and provide for public access to the shoreline.
4. In all new subdivisions and detached single-family developments with four dwelling units, joint use shoreline facilities should be encouraged.
5. Accessory uses and structures should be designed and located to blend into the site as much as possible. Accessory uses and structures should be located landward of the principal residence when feasible.

C. Residential Regulations.

1. Residential development is prohibited waterward of the OHWM and within setbacks defined for each shoreline environment designation.
2. Residential development shall assure no net loss of shoreline ecological functions.
3. Residential development shall not be approved if geotechnical analysis demonstrates that flood control or shoreline protection measures are necessary to create a residential lot or site

area. Residential development shall be located and designed to avoid the need for structural shore defense and flood protection works.

4. If wetlands or other critical areas are located on the development site, clustering of residential units shall be required in order to avoid impacts to these areas.
5. Storm drainage facilities shall include provisions to prevent the direct entry of uncontrolled and untreated surface water runoff into receiving waters as specified in the Stormwater Manual.
6. Subdivisions and planned unit developments of four waterfront lots/units shall dedicate, improve, and provide maintenance provisions for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for all residents of the development and the general public. When required, public access easements shall be a minimum of 25 feet in width and shall comply with the public access standards in SMC 20.230.040. The design shall conform to the standards in the Engineering Development Manual.
7. Single-family residential development shall maintain a minimum setback from the OHWM consistent with Table 20.230.082.
8. Multifamily residential development shall maintain a minimum setback from the OHWM consistent with Table 20.230.082.
9. One accessory structure to the residence may be placed within the required shoreline setback provided:
 - a. No accessory structure shall cover more than 200 square feet.

Subchapter 3.

Shoreline Modification Policies and Regulations

20.230.150 General.

Shoreline modification involves developments that provide bank stabilization or flood control.

The purpose of the modification is to reduce adverse impacts caused by natural processes, such as current, flood, tides, wind, or wave action. Shoreline modification includes all structural and nonstructural means to reduce flooding and/or erosion of banks.

Nonstructural methods include setbacks of permanent and temporary structures, relocation of the structure to be protected, ground water management, planning, bioengineering or “soft” engineered solutions, 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, while “soft” structural measures rely on natural materials such as biotechnical vegetation or beach enhancement. Generally, the harder the construction measure,

the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions. New structural shoreline stabilization also often results in vegetation removal, as well as damage to nearshore habitat and shoreline corridors. There are a range of measures varying from soft to hard that include:

- Vegetation enhancement.
- Upland drainage control.
- Biotechnical measures.
- Beach enhancement.
- Anchor trees.
- Gravel placement.
- Rock revetments.
- Gabions.
- Concrete groins.
- Retaining walls and bluff walls.
- Bulkheads.

A. Shoreline Modification Policies – General.

1. Biostabilization and other bank stabilization measures should be located, designed, and constructed primarily to prevent damage to the existing primary structure.
2. All new development should be located and designed to prevent or minimize the need for shoreline stabilization measures and flood protection works. New development requiring shoreline stabilization shall be discouraged in areas where no preexisting shoreline stabilization is present.
3. Shoreline modifications are only allowed for mitigation or enhancement purposes, or when and where there is a demonstrated necessity to support or protect an existing primary structure or legally existing shoreline use that is otherwise in danger of loss or substantial damage.
4. Proposals for shoreline modifications should be designed to protect life and property without impacting shoreline resources.
5. Shoreline modifications that are natural in appearance, compatible with ongoing shoreline processes, and provide flexibility for long-term management, such as protective berms or vegetative stabilization, should be encouraged over structural means such as concrete bulkheads or extensive revetments, where feasible.

6. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to withstand the erosive forces of the current and waves.
7. The design of bank stabilization or protection works should provide for the long-term, multiple use of shoreline resources and public access to public shorelines.
8. In the design of publicly financed or subsidized works, consideration should be given to providing pedestrian access to shorelines for low impact outdoor recreation.
9. All flood protection measures should be placed landward of the natural flood boundary, including wetlands that are directly interrelated and interdependent with water bodies.
10. If through construction and/or maintenance of shoreline modification developments, the loss of vegetation and wildlife habitat will occur, mitigation should be required.
11. Existing, previously permitted stabilization measures, such as bulkheads and retaining walls, are considered engineered and abated hazards and shall not be classified as geologic hazard areas.

B. Shoreline Modification Regulations – General.

1. All new development, uses or activities within the shoreline area shall be located and designed to prevent or minimize the need for bank stabilization and flood protection works.
2. Permitted and shoreline conditional use requirements for bulkheads and revetments are specified in this chapter. All other forms of shoreline modification, except soft shore, must be approved as a shoreline conditional use within all shoreline environments.
3. All shoreline stabilization proposals require a geotechnical analysis.
4. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that mitigates impacts to the environment. The preferred mitigation sequence (avoid, minimize, mitigate, compensate) shall follow that listed in SMC 20.230.020(A)WAC 173-26-201(2)(e).
5. New non-water-dependent development, including single-family residences, that includes structural shoreline stabilization shall not be allowed unless all of the conditions below apply, otherwise new stabilization measures are limited to protecting only existing developments:
 - a. The need to protect the development from destruction due to erosion caused by natural processes, such as currents and waves, is demonstrated through a geotechnical/hydrogeological report prepared by a City-approved qualified professional.
 - b. The erosion is not caused by upland conditions, such as the loss of vegetation and/or drainage issues.

- c. There will be no net loss of shoreline ecological functions or impacts to adjacent or down-current properties.
 - d. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements and soft structural solutions such as bioengineering, are not feasible or not sufficient.
 - e. The structure will not cause adverse impacts to the functions and values of critical areas or properly functioning conditions for proposed, threatened, and endangered species.
 - f. Other mitigation/restoration measures are included in the proposal.
6. Upon project completion, all disturbed shoreline areas shall be restored to as near pre-project configuration as possible and replanted with appropriate vegetation. All losses in riparian vegetation or wildlife habitat shall be mitigated at a ratio of 1:1.25 (habitat lost to habitat replaced).
 7. Shoreline stabilization and flood protection works are prohibited in wetlands and on point and channel bars. They are also prohibited in fish spawning areas.
 8. Developments shall not reduce the volume and storage capacity of streams and adjacent wetlands or flood plains.
 9. Use of refuse for the stabilization of shorelines is prohibited.

20.230.160 Dredging and disposal of dredging spoils.

A. Dredging and Dredge Spoil Policies.

1. Dredging waterward of the OHW~~Ordinary high water mark~~ for the primary purpose of obtaining fill material is prohibited.
2. Dredging operations should be planned and conducted to minimize interference with navigation; avoid creating adverse impacts on other shoreline uses, properties, and ecological shoreline functions and values; and avoid adverse impacts to habitat areas and fish species.
3. Dredge spoil disposal in water bodies shall be prohibited except for habitat improvement.
4. Dredge spoil disposal on land should occur in areas where environmental impacts will not be significant.

B. Dredging and Dredge Spoil Regulations.

1. Dredging and dredge spoil disposal shall be permitted only where it is demonstrated that the proposed actions will not:
 - a. Result in significant damage to water quality, fish, and other essential biological elements;
 - b. Adversely alter natural drainage and circulation patterns, currents, or reduce floodwater capacities;

- c. Adversely impact properly functioning conditions for proposed, threatened, or endangered species; or
- d. Adversely alter functions and values of the shoreline and associated critical areas.
2. Proposals for dredging and dredge spoil disposal shall include all feasible mitigating measures to protect habitats and to minimize adverse impacts such as turbidity; release of nutrients, heavy metals, sulfides, organic materials, or toxic substances; depletion of oxygen; disruption of food chains; loss of benthic productivity; and disturbance of fish runs and/or important localized biological communities.
3. Dredging and dredge spoil disposal shall not occur in wetlands unless for approved maintenance or enhancement associated with a restoration project.
4. Dredging within the shorelines shall be permitted only:
 - a. For navigational purposes; or
 - b. For activities associated with shoreline or aquatic restoration or remediation.
5. When dredging is permitted, the dredging shall be the minimum necessary to accommodate the proposed use.
6. Dredging shall utilize techniques that cause minimum dispersal and broadcast of bottom material; hydraulic dredging shall be used wherever feasible in preference to agitation dredging.
7. Dredge material disposal shall be permitted in shoreline jurisdiction only as part of an approved shoreline habitat and natural systems enhancement, fish habitat enhancement or watershed restoration project.
8. Dredged spoil material may be disposed at approved upland sites. If these upland sites are dry lands and fall within shoreline jurisdiction, the disposal of dredge spoils shall be considered landfilling and must be consistent with all applicable provisions of the Master Program. Depositing dredge spoils within the Puget Sound shall be allowed only by shoreline conditional use for one of the following reasons:
 - a. For wildlife habitat improvements; or
 - b. To correct problems of material distribution that are adversely affecting fish resources.
9. If suitable alternatives for land disposal are not available or are infeasible, water disposal sites may be permitted by appropriate agencies, provided the sites are determined by the Director to be consistent with the following criteria:
 - a. Disposal will not interfere with geohydraulic processes;
 - b. The dredge spoil has been analyzed by a qualified professional and found to be minimally or nonpolluting;
 - c. Aquatic life will not be adversely affected; and

- d. The site and method of disposal meet all requirements of applicable regulatory agencies.
- 10. Disposal of dredge material shall be done in accordance with the Washington State Department of Natural Resources (DNR) Dredge Material Management Program. DNR manages disposal sites through a site use authorization (SUA); all other required permits must be provided to DNR prior to the DNR issuing a SUA for dredge disposal.
- 11. The City may impose reasonable limitations on dredge spoil disposal operating periods and hours, and may require buffer strips at land disposal sites.

20.230.170 Piers and docks.

Piers and docks may be allowed in accordance with Table 20.230.081 only when the following conditions are met:

- A. The public's need for piers and docks is clearly demonstrated, and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020, as amended from time to time.
- B. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible, or would result in unreasonable and disproportionate cost to accomplish the same general purpose.
- C. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.
- D. The project is consistent with the State's interest in resource protection and species recovery.
- E. Private, noncommercial docks for joint or community use may be authorized; provided, that:
 - 1. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible; and
 - 2. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.
- F. An inventory of the site and adjacent beach sections to assess the presence of critical saltwater habitats and functions is required. The methods and extent of the inventory shall be consistent with accepted research methodology. Proposals will be evaluated using the Department of Ecology technical assistance materials for guidance.
- G. Community moorage to serve new development shall be limited to the amount of moorage needed to serve lots with water frontage; provided, that a limited number of upland lots may also be accommodated. Applications for shared moorage shall demonstrate that mooring buoys are not feasible prior to approval of dock moorage.

H. Piers and docks shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Materials used for submerged portions of a pier or dock, decking, and other components that may come in contact with water shall be approved by applicable State agencies for use in water to avoid discharge of pollutants from wave splash, rain, or runoff. At a minimum, piles, floats, or other structural members in direct contact with the water shall be constructed of concrete or steel in accordance with best management practices (BMPs) published by ~~the Washington Department of Fish and Wildlife (WDFW)~~ and the United States Army Corps of Engineers (USACE), and they shall not be treated or coated with herbicides, fungicides, paint, or pentachlorophenol. Use of arsenate compounds or creosote is prohibited.

I. Pilings used in piers or docks shall have a minimum clearance of two feet above extreme high tide and a maximum clearance of five feet above the OHWM. Floats shall not rest on the substrate.

J. To minimize adverse effects on nearshore habitats and species caused by over-water structures that reduce ambient light levels, the following shall apply:

1. The width of docks, piers, floats, and lifts shall be the minimum necessary, and shall not be wider than six feet;
2. The length of docks and piers shall be the minimum necessary to prevent the grounding of floats and boats on the substrate during low tide;
3. Docks floats or floating docks shall include stops that serve to keep the float bottom off tidelands at low tide;
4. The length and location of docks, piers, floats, and lifts pilings shall be designed using the BMPs as conditioned in the permitting documents approved by WDFW and USACE; and
5. The size of shared docks or piers is limited to 700 square feet for two lots and 1,000 square feet for three or more lots.

K. All new piers or docks must be fully grated. Grating to allow light passage or reflective panels to increase light refraction into the water shall be used on piers, docks, floats and gangways in nearshore areas. Decking shall have a minimum open space of 40 percent and after installation at least 60 percent ambient light beneath the structure shall be maintained.

20.230.175 Pier and dock repair, replacement, or expansion.

A. Existing over-water structures may be repaired and/or replaced in the same location as the existing structure.

- B. Repair or replacement of 50 percent or more of an existing over-water deck structure shall include the replacement of the entire decking with grated material to achieve a minimum open space of 40 percent and shall result in at least 60 percent ambient light beneath the structure.
- C. Repair or replacement of less than 50 percent of the over-water deck structure shall use grated decking in the area to be replaced. If the cumulative repair in any three-year period exceeds 50 percent, the entire decking shall be replaced to achieve a minimum open space of 40 percent and shall result in at least 60 percent ambient light beneath the structure.
- D. Repair or replacement of structural members in contact with the water shall be constructed of concrete or steel in accordance with BMPs published by WDFW and USACE and they shall not be treated or coated with herbicides, fungicides, paint, or pentachlorophenol. Use of arsenate compounds or creosote is prohibited.
- E. Expansion of existing over-water structures is prohibited.
- F. Other repairs not described in this section to existing legally established structures are considered minor and may be permitted consistent with all applicable regulations.

20.230.180 Bulkheads.

Bulkheads are walls usually constructed parallel to the shore, whose primary purpose is to contain and prevent the loss of soil by erosion, wave, or current action. Bulkheads are typically constructed of poured-in-place concrete; steel or aluminum sheet piling; wood; or wood and structural steel combinations.

The ~~Washington State SMA~~ Shoreline Management Act only exempts the construction of a normal protective bulkhead associated with an existing single-family residence from the shoreline substantial development permit requirement. However, these structures are required to comply with all the policies and development standards of this ~~Shoreline~~ Master Program.

A. Bulkhead Policies.

1. Bulkheads constructed from natural materials, such as protective berms, beach enhancement, or vegetative stabilization, are strongly preferred over structural bulkheads constructed from materials such as steel, wood, or concrete. Proposals for bulkheads should demonstrate that natural methods are unworkable.
2. Bulkheads should be located, designed, and constructed primarily to prevent damage to the existing primary structure. New development that requires bulkheads is not permitted except as specifically provided under this Master Program.
3. Shoreline uses should be located in a manner so that a bulkhead is not likely to become necessary in the future.

4. Bulkheads should not be approved as a solution to geophysical problems such as mass slope failure, sloughing, or landslides. Bulkheads should only be approved for the purposes of preventing bank erosion by the Puget Sound.

B. Bulkhead Regulations.

1. New bulkheads may be allowed only when evidence is presented which demonstrates that one of the following conditions exists:

a. Serious erosion threatens an established use or existing primary structure on upland property.

b. Bulkheads are necessary to the operation and location of water-dependent, water-related, or water enjoyment activities consistent with this ~~Shoreline~~ Master Program; provided, that all other alternative methods of shore protection have proven infeasible; and/or

c. A bulkhead is necessary to retain landfilling that has been approved consistent with the provisions of this Master Program.

2. Proposals for bulkheads must first demonstrate through a geotechnical analysis that use of natural materials and processes and nonstructural or soft structural solutions to bank stabilization are not feasible.

3. The construction of a bulkhead for the primary purpose of retaining landfilling shall be allowed only in conjunction with:

a. A water-dependent use;

b. A bridge or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist; and/or

c. A wildlife or fish enhancement project.

4. Bulkheads shall not be located on shorelines where valuable geohydraulic or biological processes are sensitive to interference. Examples of such areas include wetlands and accretion landforms.

5. Bulkheads are to be permitted only where local physical conditions, such as foundation bearing materials, and surface and subsurface drainage, are suitable for such alterations.

6. If possible, bulkheads shall be located landward of the OHWM and generally parallel to the natural shoreline. In addition:

a. Where no other bulkheads are adjacent, the construction of a bulkhead shall be as close to the eroding bank as possible and in no case shall it be more than three feet from the toe of the bank;

b. A bulkhead for permitted landfilling shall be located at the toe of the fill; and

c. Where permitted, a bulkhead must tie in flush with existing bulkheads on adjoining properties, except where the adjoining bulkheads extend waterward of the base flood elevation, the requirements set forth in this section shall apply.

7. Replacement bulkheads may be located immediately waterward of the bulkhead to be replaced such that the two bulkheads will share a common surface, except where the existing bulkhead has not been backfilled or has been abandoned and is in serious disrepair. In such cases, the replacement bulkhead shall not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns.

8. All bulkhead proposals require a geotechnical report prepared by a qualified professional. Bulkheads shall be sited and designed as recommended in approved geotechnical reports. For the waterfront residential environment designation, one geotechnical report could be prepared for multiple properties.

9. When a bulkhead is required at a public access site, provision for safe access to the water shall be incorporated into bulkhead design.

10. Bulkheads shall be designed for the minimum dimensions necessary to adequately protect the development.

11. Stairs or other permitted structures may be built into a bulkhead but shall not extend waterward of the bulkhead, unless they are retractable or removable.

12. Bulkheads shall be designed to permit the passage of surface or ground water without causing ponding or saturation of retained soil/materials.

13. Adequate toe protection consisting of proper footings, a fine retention mesh, etc., shall be provided to ensure bulkhead stability without relying on additional riprap.

14. Materials used in bulkhead construction shall meet the following standards:

a. Bulkheads shall utilize stable, nonerodible, homogeneous materials such as concrete, wood, and rock that are consistent with the preservation and protection of the ecological habitat;

b. Dredge spoils shall not be used for fill behind bulkheads, except clean dredge spoil from a permitted off-site dredge and fill operation; and

c. Backfill and wave returns to stabilize bulkheads are permitted.

20.230.190 Revetment.

A revetment is a sloped shoreline structure built to protect an existing eroding shoreline or newly placed fill against currents. Revetments are most commonly built of randomly placed boulders (riprap) but may also be built of sand cement bags, paving or building blocks, gabions (rock

filled wire baskets), or other systems and materials. The principal features of a revetment, regardless of type, is a heavy armor layer, a filter layer, and toe protection.

A. Revetment Policies.

1. The use of armored structural revetments should be limited to situations where it is determined that nonstructural solutions such as bioengineering, setbacks, buffers or any combination thereof, will not provide sufficient shoreline stabilization.
2. Revetments should be designed, improved, and maintained to provide public access whenever possible.

B. Revetment Regulation.

1. The proposed revetment shall be designed by a qualified professional engineer.
2. Design of revetments shall include and provide improved access to public shorelines whenever possible.
3. When permitted, the location and design of revetments shall be determined using engineering principles, including guidelines of the U.S. Soil Conservation Service and USACE.
4. Armored revetment design shall meet the following design criteria:
 - a. The size and quantity of the material shall be limited to only that necessary to withstand the estimated energy intensity of the hydraulic system;
 - b. Filter fabric must be used to aid drainage and help prevent settling;
 - c. The toe reinforcement or protection must be adequate to prevent a collapse of the system from scouring or wave action; and
 - d. Fish habitat components, such as large boulders, logs, and stumps, shall be considered in the design subject to a Hydraulic Project Approval by WDFW~~the Washington Department of Fish and Wildlife~~.

20.230.200 Land disturbing activities.

A. Land Disturbing Activity Policies.

1. Land disturbing activities should only be allowed in association with a permitted shoreline development.
2. Land disturbing activities should be limited to the minimum necessary to accommodate the shoreline development or a landscape plan developed in conjunction with the shoreline development.
3. Erosion shall be prevented and sediment shall not enter waters of the State.

B. Land Disturbing Activity Regulations.

1. All land disturbing activities shall only be allowed in association with a permitted shoreline development.
2. All land disturbing activities shall be limited to the minimum necessary for the intended development, including any clearing and grading approved as part of a landscape plan. Clearing invasive, nonnative shoreline vegetation listed on the King County Noxious Weed List is permitted in the shoreline area with an approved clearing and grading permit provided best management practices are used as recommended by a qualified professional, and native vegetation is promptly reestablished in the disturbed area.
3. Tree and vegetation removal shall be prohibited in required native vegetation conservation areas, except as necessary to restore, mitigate or enhance the native vegetation by approved permit as required in these areas.
4. All significant trees in the native vegetation conservation areas shall be designated as protected trees consistent with SMC 20.50.330 and removal of hazard trees must be consistent with SMC 20.50.310(A)(1).
5. All shoreline development and activities shall use measures identified in the 2014 Department of Ecology Stormwater Management Manual for Western Washington, or as revised. Stabilization of exposed surfaces subject to erosion along shorelines shall, whenever feasible, utilize soil bioengineering techniques.
6. For extensive land disturbing activities that require a permit, a plan addressing species removal, revegetation, irrigation, erosion and sedimentation control, and other methods of shoreline protection should be required.

20.230.210 Landfilling.

A. Landfilling Policies.

1. The perimeter of landfilling should be designed to avoid or eliminate erosion and sedimentation impacts, during both initial landfilling activities and over time.
2. Where permitted, landfilling should be the minimum necessary to provide for the proposed use and should be permitted only when conducted in conjunction with a specific development proposal that is permitted by ~~the~~this Shoreline-Master Program. Speculative landfilling activity should be prohibited.

B. Landfilling Regulations.

1. Landfilling activities shall only be permitted in conjunction with a specific development. Landfilling may be permitted as a shoreline conditional use for any of the following:

- a. In conjunction with a water-dependent use permitted under this ~~Shoreline~~ Master Program; and/or
 - b. In conjunction with a bridge, utility, or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist.
2. Pier or pile supports shall be utilized in preference to landfilling. Landfilling for approved road development in floodways or wetlands shall be permitted only if pile or pier supports are proven structurally infeasible.
 3. Landfilling shall be permitted only where it is demonstrated that the proposed action will not:
 - a. Result in significant damage to water quality, fish, and/or wildlife habitat; or
 - b. Adversely alter natural drainage and current patterns or significantly reduce floodwater capacities.
 4. Where landfilling activities are permitted, the landfilling shall be the minimum necessary to accommodate the proposed use.
 5. Landfilling from dredging and dredge material disposal shall be done in a manner that avoids or minimizes significant ecological impacts. Impacts that cannot be avoided shall be mitigated in a manner that assures no net loss of shoreline ecological functions.
 6. Dredging waterward of the OHWM for the primary purpose of obtaining fill material shall not be allowed, except when the material is necessary for the restoration of shoreline ecological functions. When allowed, the site where the fill is to be placed must be located waterward of the OHWM.
 7. Landfilling shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area. Landfilling perimeters shall be designed and constructed with silt curtains, vegetation, retaining walls, or other mechanisms to prevent material movement. In addition, the sides of the landfilling shall be appropriately sloped to prevent erosion and sedimentation, during both the landfilling activities and afterwards.
 8. Fill materials shall be clean sand, gravel, soil, rock, or similar material. Use of polluted dredge spoils and sanitary landfilling materials are prohibited. The property owner shall provide evidence that the material has been obtained from a clean source prior to fill placement.
 9. Landfilling shall be designed to allow surface water penetration into aquifers, if such conditions existed prior to the fill.

20.230.230 Signs.

A. **Sign Policies.** Signs should be designed and placed so that they are compatible with the natural quality of the shoreline environment and adjacent land and water uses.

B. **Sign Regulations.** Signs within the City, including the shoreline area, are subject to the requirements and standards specified in Chapter 20.50 SMC, Subchapter 8. Signs are based on the underlying zoning. In addition, the following sign requirements shall apply to signs within shoreline areas:

1. Signs shall only be allowed in or over water for navigation purposes; at road or railroad crossings as necessary for operation, safety and direction; or as related and necessary to a water-dependent use.
2. Signs are permitted in all shoreline environments upland of the OHWM. These sign standards supplement the provisions of SMC 20.50.530 to 20.50.610. Where there is a conflict, the provisions herein shall apply.

C. **Prohibited Signs.**

1. All prohibited signs per SMC 20.50.550.
2. Balloons, any inflatable signs, or inflatable objects used to aid in promoting the sale of products, goods, services, events, or to identify a building.
3. Searchlights and beacons.
4. Electronic reader boards or changing message signs.
5. Neon signs.
6. Pole signs.
7. Backlit awnings used as signs.
8. Internally illuminated signs, except as allowed in subsection (D)(1) of this section.
9. Signs that impair visual access from public viewpoints in view corridors are prohibited in all shoreline environments.

D. **Illumination of Signs.**

1. Illumination of signs is only allowed as permitted by the underlying zoning.
2. Internal illumination of signs is only allowed with light provided by LED or other Energy Star rated luminaires, and is limited to:
 - a. Opaque cabinet signs where light only shines through the letters, not including symbols, images, or background; or
 - b. Shadow lighting, where letters are backlit, but light only shines through the edges of the letters.

3. All externally illuminated signs shall shield nearby properties from direct lighting. Light source must be within a maximum of six feet from the sign display, and limited to LED or other Energy Star rated luminaires.
4. No commercial sign shall be illuminated after 11:00 p.m. unless the commercial enterprise is open for business, and then may remain on only as long as the business is open.
5. The light from any illuminated sign shall be shaded, shielded or directed so that the light intensity or brightness shall not adversely affect:
 - a. Surrounding or facing premises;
 - b. Safe vision of operators of vehicles on public or private roads, highways, or parking areas; or
 - c. Safe vision of pedestrians on a public right-of-way.
6. Light from any sign shall not shine on, nor directly reflect into, residential structures, lots, or the water.
7. These provisions shall not apply to:
 - a. Lighting systems owned or controlled by any public agency for the purpose of directing or controlling navigation, traffic, and highway or street illumination;
 - b. Aircraft warning lights;
 - c. Temporary lighting used for repair or construction as required by governmental agencies; or
 - d. Temporary use of lights or decorations relating to religious or patriotic festivities.

20.230.240 Stormwater management facilities.

A. Stormwater Management Facilities Policies.

1. Stormwater facilities located in the shoreland area should be maintained only to the degree necessary to ensure the capacity and function of the facility, including the removal of nonnative, invasive plant species.
2. The stormwater facility should be planted with native vegetation.

B. Stormwater Management Facility Regulations.

1. New stormwater facilities shall be located so as not to require any shoreline protection works.
2. Stormwater facility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with stormwater facility operations, endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.

3. Construction of stormwater facilities in shoreland areas shall be timed to avoid fish and/or wildlife migratory and spawning periods.

20.230.250 Transportation.

Transportation facilities are those structures and developments that aid in land and water surface movement of people, goods, and services. They include roads and highways, bridges and causeways, bikeways, trails, railroad facilities, and boat and floatplane terminals.

A. Transportation Policies.

1. New roads within the shoreline area should be minimized.
2. Roads and railroad locations should be planned to fit the topographical characteristics of the shoreline such that alteration of natural conditions is minimized.
3. Pedestrian and bicycle trails should be encouraged.
4. When existing transportation corridors are abandoned they should be reused for water-dependent use or public access.
5. Alternatives to new roads or road expansion in the shoreline area should be considered as a first option.
6. Joint use of transportation corridors within shoreline jurisdiction for roads, utilities, and motorized forms of transportation should be encouraged.
7. New roads should be designed to accommodate bicyclists, pedestrians and transit, where feasible.

B. Transportation Regulations.

1. Transportation facilities and services shall utilize existing transportation corridors wherever possible, provided the shoreline is not adversely impacted and the development is otherwise consistent with this ~~Shoreline~~ Master Program.
2. Transportation and primary utilities shall jointly use rights-of-way.
3. Landfilling activities for transportation facility development are prohibited in wetlands and on accretion beaches, except when all structural and upland alternatives have proven infeasible, and the transportation facilities are necessary to support uses consistent with this ~~Shoreline~~ Master Program.
4. Major new roads and railways shall avoid being located in the shoreline jurisdiction to the extent practical. These roads shall cross shoreline areas by the shortest, most direct route, unless this route would cause more damage to the environment.
5. New transportation facilities shall be located and designed to minimize or prevent the need for shoreline modification.

6. All bridges must be built high enough to allow the passage of debris, and provide three feet of clearance above the base flood elevation.
7. Shoreline transportation facilities shall be located and designed to avoid steep or unstable areas and fit the existing topography in order to minimize cuts and fills.
8. Bridge abutments and necessary approach fills shall be located landward of the OHWM, except bridge piers may be permitted in a water body as a shoreline conditional use.

20.230.260 Unclassified uses and activities.

In the event that a proposed shoreline use or activity is not identified or classified in this ~~Shoreline~~-Master Program, the following regulation shall apply.

A. Regulations. All uses and activities proposed in the shoreline area that are not classified by provisions in this ~~Shoreline~~-Master Program shall require a shoreline conditional use permit.

20.230.270 Utilities.

Primary utilities include substations, pump stations, treatment plants, sanitary sewer outfalls, electrical transmission lines greater than 55,000 volts, water, sewer or storm drainage mains greater than eight inches in diameter, gas and petroleum transmission lines, and submarine telecommunications cables. Accessory utilities include local public water, electric, natural gas distribution, public sewer collection, cable and telephone service, and appurtenances.

A. Utility Policies.

1. Utilities should utilize existing transportation and utility sites, rights-of-way, and corridors whenever possible. Joint use of rights-of-way and corridors should be encouraged.
2. Unless no other feasible alternative exists, utilities should be prohibited in the shoreline jurisdiction, wetlands, and other critical areas. There shall be no net loss of ecological functions or significant impacts to other shoreline resources or values.
3. New utility facilities should be located so as not to require extensive shoreline modifications.
4. Whenever possible, utilities should be placed underground or alongside or under bridges.
5. Solid waste disposal activities and facilities should be prohibited in shoreline areas.

B. Utility Regulations.

1. Utility development shall provide for compatible, multiple use of sites and rights-of-way when practical.
2. Utility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with utility operations,

endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.

3. The following primary utilities, which are not essentially water-dependent, may be permitted as a shoreline conditional use if it can be shown that no reasonable alternative exists:
 - a. Water system treatment plants;
 - b. Sewage system lines, interceptors, pump stations, and treatment plants;
 - c. Electrical energy generating plants, substations, lines, and cables; or
 - d. Petroleum and gas pipelines.
4. New solid waste disposal sites and facilities are prohibited.
5. New utility lines including electricity, communications, and fuel lines shall be located underground, except where the presence of bedrock or other obstructions make such placement infeasible.
6. Transmission and distribution facilities shall cross shoreline areas by the shortest, most direct route feasible, unless such route would cause increased environmental damage.
7. Utilities requiring withdrawal of water shall be located only where minimum flows as established by WDFW~~the Washington State Department of Fish and Wildlife~~ can be maintained.
8. Utilities shall be located and designated so as to avoid the use of any structural or artificial shoreline modification.
9. All underwater pipelines are prohibited. If no other alternative exists, a shoreline conditional use permit is required.

Chapter 20.240
SMP Critical Areas Regulations

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Subchapter 1.

Critical Areas – General Provisions

20.240.010 Purpose.

A. The purpose of this chapter is to establish supplemental standards for the protection of critical areas and their associated buffers within the shoreline jurisdiction consistent with the goals and policies of the SMA.

B. The provisions of this chapter do not extend beyond the shoreline jurisdiction limits specified in this Master Program and the SMA.

C. By identifying and regulating development and alterations to critical areas and buffers within the shoreline jurisdiction it is the intent of this chapter to:

1. Protect the public from injury, loss of life, property damage or financial losses due to flooding, erosion, landslide, seismic events, or soils subsidence;
2. Protect unique, fragile and valuable elements of the environment;
3. Reduce cumulative adverse environmental impacts to water quality, wetlands, streams, and other aquatic resources, fish and wildlife habitat, landslide hazards, and other geologically unstable features and protect the functions and values of critical areas from overall net loss;
4. Ensure the long-term protection of ground and surface water quality;
5. Alert members of the public, including appraisers, assessors, owners, potential buyers, or lessees, to the development limitations of critical areas and their required buffers;
6. Serve as a basis for exercise of the City's substantive authority under SEPA, and the City's Environmental Procedures (chapter 20.30 SMC, Subchapter 8);
7. To comply with the requirements of the SMA and its implementing regulations;
8. Establish standards and procedures that are intended to protect critical areas and their associated buffers within the shoreline jurisdiction while accommodating the rights of property owners to use their property in a reasonable manner; and
9. Provide for the management of critical areas and buffers within the shoreline jurisdiction so as not to result in a net loss of ecological functions and to restore degraded ecosystems.

D. This chapter is to be administered with flexibility and attention to site-specific characteristics.

E. For the purpose of this chapter, critical areas and buffers shall have the same meanings as set forth in SMC 20.20 and RCW 36.70A.030(5), as amended from time to time.

F. For the purpose of this chapter, when referring to “functions and values” or “functions,” it is the critical area’s functions and values in relationship to the shoreline ecological functions.

20.240.015 Applicability.

A. Unless explicitly exempted, the provisions of this chapter shall apply to all land uses, development activity, and all structures and facilities within critical areas and buffers located within the City’s shoreline jurisdiction, whether or not a permit or authorization is required, and shall apply to every person or entity that owns, lease, or administers land within the City’s shoreline jurisdiction.

B. No person or entity shall alter a critical area of buffer in the shoreline jurisdiction except in compliance with the requirements of this chapter.

B. The City shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or vegetation or to construct or alter any structure or improvement in the shoreline jurisdiction without first assuring compliance with the requirements of this chapter.

C. Approval of a permit or development proposal pursuant to the provisions of this chapter does not discharge the obligation of the applicant to comply with the provisions of this chapter.

D. The provisions of this chapter shall apply to any forest practices over which the City has jurisdiction pursuant to Chapter 76.09 RCW and WAC Title 222, as amended from time to time.

20.240.020 Relationship to other regulations.

A. These critical area regulations shall apply as an overlay in addition to use and development regulations established by the City consistent with the SMA and this Master Program. In the event of any conflict between these regulations and any other regulations of the City, the regulations which provide greater protection to the critical areas shall apply.

B. Areas characterized by particular critical areas may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some critical areas. In the event of any conflict between regulations for particular critical areas in this chapter, the regulations which provide greater protection to critical areas shall apply.

C. These critical areas regulations shall apply concurrently with review conducted under SEPA, as necessary and locally adopted. Any conditions required pursuant to this chapter shall be included in the SEPA review and threshold determination.

D. Compliance with the provisions of this chapter does not constitute compliance with other Federal, State, and local regulations and permit requirements that may be required (for example, shoreline substantial development permits, Hydraulic Permit Act (HPA) permits, Section 106 of the National Historic Preservation Act, USACE Section 404 permits, National Pollution Discharge Elimination System permits). The applicant is responsible for complying with these requirements, apart from the process established in this chapter.

20.240.025 Critical areas maps.

A. The approximate location and extent of identified critical areas within the City's planning area are shown on the critical areas maps adopted as part of this chapter, including but not limited to the maps identified in SMC 20.240.222, 20.240.272, and 20.240.322. These maps shall be used for informational purposes as a general guide only for the assistance of property owners and other interested parties. Boundaries and locations indicated on the maps are generalized. Critical areas and their buffers may occur within the shoreline jurisdiction which have not previously been mapped. A site inspection by staff or an applicant's critical area worksheet may also indicate the presence of a critical area.

B. Based on an indicated critical area in subsection A of this section, the actual presence or absence, delineation and classification of critical areas shall be identified in the field by a qualified professional, and confirmed by the City, according to the procedures, definitions and criteria established by SMC 20.240.080(D)(1) and (2). In the event of any conflict between the critical area location or designation shown on the City's maps and the criteria or standards of this chapter, the criteria and standards of this chapter shall prevail.

C. The critical areas maps shall be periodically updated by the City and shall reflect any permit activity, results of special studies and reports reviewed and approved by the City, amendments to the Comprehensive Plan Natural Environment Element, and Department-identified errors and corrections.

20.240.040 Allowed activities.

A. **Critical Area Report.** Activities allowed under this section shall have been reviewed and permitted or approved by the City and any other agency with jurisdiction, but do not require

submittal of a separate critical area report, unless such submittal was required previously for the underlying permit. The Director may apply conditions to the underlying permit or approval to ensure that the allowed activity is consistent with the provisions of this chapter to protect critical areas.

B. Best Management Practices. All allowed activities shall be conducted using the best management practices that result in the least amount of impact to the critical areas. Best management practices shall be used for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and regulation of chemical applications. The City shall require the use of best management practices to ensure that the activity does not result in degradation to the critical area. Any incidental damage to, or alteration of, a critical area shall be restored, rehabilitated, or replaced at the responsible party's expense.

C. Allowed Activities. The following activities are allowed:

1. Modifications to Existing Structures within Critical Areas. Structural modification of, addition to, maintenance, repair, or replacement of legally nonconforming structures consistent with SMC 20.220.150, which do not meet the building setback or buffer requirements for wetlands, fish and wildlife habitat conservation areas, or geologic hazard areas if the modification, addition, replacement or related activity does not increase the existing building footprint of the structure or area of hardscape lying within the critical area or buffer. Within landslide hazard areas, additions that add height to a nonconforming structure may only be allowed with review of a critical area report demonstrating that no increased risk of the hazard will occur. If such modification, alteration, repair, or replacement requires encroachment into a critical area or a critical area buffer to perform the work, then encroachment may be allowed subject to restoration of the area of encroachment to a same or better condition.

2. Demolition. Demolition of structures located within critical areas or their buffers, excluding demolition of structures necessary to support or stabilize landslide hazard areas, and subject to approval of a stormwater pollution prevention plan consistent with the adopted stormwater manual and clearing limits that will adequately protect the critical area.

3. Permit Requests Subsequent to Previous Critical Area Review. A permit or approval sought as part of a development proposal for which multiple permits are required is

exempt from the provisions of this chapter, except for the notice to title provisions, as applicable if:

- a. The City has previously reviewed all critical areas on the site; and
- b. There is no material change in the development proposal since the prior review; and
- c. There is no new information available which may alter previous critical area review of the site or a particular critical area; and
- d. The permit or approval under which the prior review was conducted has not expired or, if no expiration date, no more than five years have lapsed since the issuance of that permit or approval; and
- e. The prior permit or approval, including any conditions, has been complied with.

20.240.045 Critical areas preapplication meeting.

A. A preapplication meeting, pursuant to SMC 20.30.080, is required prior to submitting an application for development or use of land that may impact critical areas or buffers within the shoreline jurisdiction.

B. A determination may be provided through the preapplication meeting regarding whether critical area reports are required, and if so what level of detail and what elements may be necessary for the proposed project. An applicant may submit a critical area delineation and classification study prior to the City determining that a full critical area report is required.

This determination does not preclude the Director from requiring additional critical area report information during the review of the project. After a site visit and review of available information for the preapplication meeting, the Director may determine:

1. **No Critical Areas Present.** If the Director's analysis indicates that the project area is not within or adjacent to a critical area or buffer and that the proposed activity is unlikely to result in a net loss of shoreline ecological functions provided by the critical area or buffer, then the Director shall determine that the critical area review is complete and note in the preapplication meeting summary letter the reasons that no further review is required.

2. **Critical Areas Present, But No Impact.** If the Director determines that there are critical areas within or adjacent to the project area, but that the best available science shows that

the proposed activity is unlikely to result in a net loss of shoreline ecological functions provided by the critical area or buffer, the Director may waive the requirement for a critical area report. A waiver may be granted if there is substantial evidence that all of the following requirements will be met:

- a. There will be no alteration of the critical area or buffer;
- b. The development proposal will not impact the critical area in a manner contrary to the purpose, intent, and requirements of this chapter, this Master Program, and the SMA; and
- c. The proposal is consistent with other applicable regulations and standards.

A summary of this analysis and the findings shall be included in the preapplication meeting summary letter and any staff report or decision on the underlying permit.

3. Critical Areas May Be Affected by Proposal. If the Director determines that a critical area(s) or buffer(s) may be affected by the proposal, then the Director shall notify the applicant that a critical area report(s) shall be submitted prior to further review of the project, and indicate each of the critical area types that should be addressed in the report. Additionally, the Director may indicate the sections or report types that shall be included in the critical report(s) consistent with SMC 20.240.080.

20.240.050 Alteration of critical areas.

In general, critical areas and buffers shall be maintained in their existing state including undisturbed, native vegetation to maintain the functions, values, resources, and public health and safety for which the critical areas and buffers are protected or allowed as the current, developed legally established condition such as graded areas, structures, pavement, gardens and lawns. Alteration of critical areas, including their established buffers, may only be permitted subject to the criteria and standards in this chapter, and compliance with any Federal and/or State permits required. Unless otherwise provided in this chapter, if alteration of the critical area is unavoidable, all adverse impacts to or from critical areas and buffers resulting from a development proposal or alteration shall be mitigated using the best available science in accordance with an approved critical areas report, so as to result in no overall net loss of shoreline ecological function provided by the critical area and no increased risk of hazards.

20.240.053 Mitigation requirements.

Mitigation shall ensure that each permitted development or use will not cause a net loss of ecological functions of the shoreline as provided by the critical area or buffer and to prevent risk from a hazard posed by a critical area. Mitigation shall not be implemented until after the Director has provided approval of a critical areas report that includes a mitigation plan.

A. Mitigation Sequencing. This section applies to mitigation required with all critical areas reviews, approvals, and enforcement pursuant to this chapter. This section is supplemented with specific measures under subchapters for particular critical areas. Mitigation for specific development proposals may include a combination of the measures below and shall be designed and constructed in accordance with the provisions of this section. Before impacting any critical areas or buffers, an applicant shall demonstrate that the following actions have been taken in the following sequential order of preference:

1. Avoiding the impact altogether by not taking a certain action or parts of actions;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment or by restoring or stabilizing the hazard area through natural, engineering, or other methods;
4. Reducing or eliminating the impact over time through preservation and maintenance operations during the life of the action;
5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
6. Monitoring, measuring and reporting the impact to the Director and taking appropriate corrective measures.

B. Applicants shall first demonstrate an inability to avoid or reduce impacts before the use of actions to mitigate potential impacts will be allowed. No activity or use shall be allowed that results in a net loss of the shoreline ecological functions provided by the critical areas or buffers or has a significant adverse impact on other shoreline functions fostered by the policies of this Master Program and the SMA.

C. Type, Location, and Timing of Mitigation. Unless it is demonstrated that a higher level of ecological functioning or greater reduction of hazard risk would result from an alternative approach or as otherwise allowed in this chapter, mitigation for adverse impacts shall be based on best available science, with preferential consideration given to measures that replace the impacted functions directly and in immediate vicinity of the impact and prior to the activities that will disturb the critical area. Mitigation measures that cannot be implemented prior to the critical area impacts shall be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

1. The Director may authorize a one-time temporary delay in completing construction or installation of the mitigation when the applicant provides a written explanation from a qualified professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window, or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, or general welfare of the public. The request for the temporary delay shall include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification shall be verified and approved by the City.

20.240.056 Shoreline restoration projects.

Shoreline restoration projects, defined as projects designed to restore impaired ecological functions of a shoreline, shall be reviewed and permitted or approved by the City and any other agency with jurisdiction consistent with criteria established in WAC 173-27-215 and RCW 90.58.580, as amended from time to time.

20.240.060 Best available science.

A. Protect Shoreline Ecological Functions provided by Critical Areas with Special Consideration to Anadromous Fish. Critical area reports and decisions to alter critical areas or buffers shall rely on the best available science to protect the shoreline ecological functions provided by the critical areas and shall give special consideration to conservation or protection

measures necessary to preserve or enhance anadromous fish, such as salmon and bull trout, and their habitat, where applicable.

B. Best Available Science to Be Consistent with Criteria. The best available science is that scientific information, obtained through a valid scientific process, that is applicable to the critical area prepared by local, State, or Federal natural resource agencies, a qualified scientific professional, or team of qualified scientific professionals that is consistent with criteria established in WAC 365-195 and RCW 36.70A.172, as amended from time to time.

C. Characteristics of a Valid Scientific Process. In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions, and in developing critical areas policies and development regulations that will be effective in protecting the shoreline ecological functions provided by the critical areas. To determine whether information received during the permit review process is reliable scientific information, the Director shall determine whether the source of the information displays the characteristics of a valid scientific process. Such characteristics are as follows:

- 1. Peer Review.** The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The proponents of the information have addressed the criticism of the peer reviewers. Publication in a referenced scientific journal usually indicates that the information has been appropriately peer-reviewed;
- 2. Methods.** The methods used to obtain the information are clearly stated and reproducible. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to ensure their reliability and validity;
- 3. Logical Conclusions and Reasonable Inferences.** The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained;
- 4. Quantitative Analysis.** The data have been analyzed using appropriate statistical or quantitative methods;

5. **Context.** The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge; and

6. **References.** The assumptions, analytical techniques, and conclusions are well-referenced with citations to relevant, credible literature, and other pertinent existing information.

D. **Nonscientific Information.** Nonscientific information, such as anecdotal observations, nonexpert opinion, and hearsay, may supplement scientific information, but it is not an adequate substitute for valid and available scientific information.

E. **Absence of Valid Scientific Information.** Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area, leading to uncertainty about the risk to shoreline ecological function provided by the critical area, for permitting an alteration of or impact to the critical area, the Director shall:

1. Take a “precautionary or a no-risk approach,” that strictly limits development and land use activities until the uncertainty is sufficiently resolved; and

2. Require application of an effective adaptive management program that relies on scientific methods to evaluate how well regulatory and nonregulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. An adaptive management program shall:

a. Address funding for the research component of the adaptive management program;

b. Change course based on the results and interpretation of new information that resolves uncertainties; and

c. Commit to the appropriate time frame and scale necessary to reliably evaluate regulatory and nonregulatory actions affecting protection of critical areas and anadromous fisheries.

20.240.070 Classification and rating of critical areas.

To promote consistent application of the standards and requirements of this chapter, critical areas within the City's shoreline jurisdiction shall be rated or classified according to their characteristics, function and value, and/or their sensitivity to disturbance. Classification of critical areas shall be determined by the City using the following tools:

A. Application of the criteria contained in these regulations;

B. Consideration of the critical area reports submitted by qualified professionals in connection with applications subject to these regulations; and

C. Review of maps adopted pursuant to this chapter.

20.240.080 Critical area report – Requirements.

A. **Report Required.** If uses, activities, or developments are proposed within, adjacent to, or are likely to impact critical areas or their buffers, an applicant shall provide site-specific information and analysis in the form of critical area report(s) as required in this chapter. Critical area reports are required in order to identify the presence, extent, and classification/rating of potential critical areas, as well as to analyze, assess, and mitigate the potential adverse impact to or risk from critical areas for a development project. Critical area reports shall use standards for best available science in SMC 20.240.060. Critical area reports for two or more types of critical areas shall meet the report requirements for each type of critical area. The expense of preparing the critical area report(s) shall be borne by the applicant. This provision is not intended to expand or limit an applicant's other obligations under WAC 197-11-100, as amended from time to time.

B. **Preparation by Qualified Professional.** Critical area report(s) shall be prepared by qualified professional(s) as defined in SMC 20.20.042, with the required training and experience specific to the type(s) of critical area(s) present consistent with the requirements of SMC 20.240.240, 20.240.290, and 20.240.340. Proof of licensing, credentials, and resume of the qualified professional(s) preparing the report shall be submitted for review by the City to determine if the minimum qualifications are met.

C. **Third Party Review of Critical Area Reports.** Review of required critical area reports by a qualified professional under contract with or employed by the City will be required by the Director at the applicant's expense in any of the following circumstances:

1. The project requires a shoreline variance application or a shoreline conditional use permit; or
2. Third party review is specifically required by the provisions of this chapter for the critical area(s) or critical area buffer(s) potentially being impacted; or
3. When the Director determines such services are necessary to demonstrate compliance with the standards and guidelines of this chapter.

D. Critical Area Report Types or Sections. Critical area reports may be met in stages through multiple reports or combined in one report. A critical area report shall include one or more of the following sections or report types unless exempted by the Director based on the extent of the potential critical area impacts. The scope and location of the proposed project will determine which report(s) alone or combined are sufficient to meet the critical area report requirements for the impacted critical area type(s). The typical sequence of required sections or reports that will fulfill the requirements of this section include:

1. **Reconnaissance.** The existence, general location, and type of critical areas in the vicinity of a project site (off site within 300 feet for wetlands and fish and wildlife habitat conservation areas and off site within 200 feet for geologic hazards, shorelines, floodplains, and aquifer recharge areas) of a project site (if allowed by the adjoining property owners). Determination of whether the project will adversely impact or be at risk from the potential critical areas based on maximum potential buffers and possible application of SMC 20.240.220(A)(3), 20.240.280(D)(7) or 20.240.330(G)(10) should be addressed;
2. **Delineation.** The extent, boundaries, rating or classification, and applicable standard buffers of critical areas where the project area could potentially impact the critical area or its buffer including an assessment of the characteristics of or functions and values of the critical area and buffers identified;
3. **Analysis.** The proposal and impact assessment report documenting the potential project impacts to the critical area and buffers including a discussion of the efforts taken to avoid, minimize, and reduce potential impacts to those areas;
4. **Mitigation.** The measures that prevent or compensate for the potential impacts of the project designed to meet the requirements of this chapter, in SMC 20.240.082, Mitigation plan requirements, and the standards for the specific critical areas impacted. Mitigation

includes, but is not limited to, adjustments to required buffer sizes, best practices to minimize impacts, and critical area or buffer enhancement, restoration, or preservation plans. Mitigation plans include habitat management plans, revegetation, or replanting plans, and restoration plans;

5. **Maintenance and Monitoring.** The goals of the mitigation proposed, performance standards for success, monitoring methods and reporting schedule, maintenance methods and schedule, and contingency actions. Maintenance and monitoring plans shall be consistent with the mitigation performance standards and requirements of this chapter, including SMC 20.240.250, 20.240.300, and 20.240.350.

E. **Minimum Report Contents.** At a minimum, critical area reports shall contain the following:

1. The name and contact information of the applicant;
2. Adequate information to determine compliance with the requirements of the critical area regulations, this chapter, including critical area report, impact and hazard assessment, and mitigation requirements specific to each critical area type, as indicated in the corresponding sections of this chapter;
3. The dates, names, and qualifications of the qualified professional(s) preparing the report and documentation of any fieldwork performed on the site;
4. A description of the proposal, proposal location including address and parcel number(s), and a vicinity map for the project;
5. Identification of the development permit(s) requested and all other local, State, and/or Federal critical area-related permits required for the project;
6. A copy of the site plan for the development proposal including:
 - a. A map to standard engineering scale depicting critical areas, buffers, the development proposal, and any areas to be altered. In addition to plan size site plans, a legible, reduced (eight and one-half inches by 11 inches) copy will be required if noticing is required for the project; and

b. A scaled depiction and description of the proposed stormwater pollution prevention plan, consistent with the adopted stormwater manual, for the development and consideration of impacts to critical areas due to drainage alterations;

7. Identification and characterization of all critical areas, wetlands, water bodies, shorelines, and buffers within the vicinity of the proposed project area (off site within 300 feet for wetlands and fish and wildlife habitat conservation areas and off site within 200 feet for geologic hazards, shorelines, floodplains, and aquifer recharge areas);

8. A statement specifying the accuracy of the report and all assumptions made and relied upon;

9. A description of the methodologies used to conduct the critical areas investigation, including references;

10. An assessment of the probable impacts to the critical areas resulting from the proposed development of the site based upon identified findings;

11. A description of reasonable efforts made to apply mitigation sequencing pursuant to SMC 20.240.053, Mitigation requirements, to avoid, minimize, and mitigate impacts to critical areas; and

12. Plans for mitigation required to offset any critical areas impacts, in accordance with SMC 20.240.082, Mitigation plan requirements, and the corresponding mitigation performance standards sections of this chapter, including a discussion of the applicable development standards and cost estimates for determination of financial guarantee requirements.

F. Existing Reports. Unless otherwise provided, a critical areas report may incorporate, be supplemented by, or composed of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the Director. At the discretion of the Director, reports previously compiled or submitted as part of a proposal for development may be used as a critical areas report to the extent that the requirements of this section and the report requirements for each specific critical area type are met. Critical areas reports shall be considered valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary. Supplemental critical area report(s) may be required to provide information and analysis to address changes to the project

scope and potential impacts or to changes to applicable regulations that have been made subsequent to existing, valid critical area reports.

G. Modifications to Report Requirements.

1. Limitations to Study Area. The Director may limit the required geographic area of the critical areas report as appropriate if:

a. The applicant, with assistance from the City, cannot obtain permission to access properties adjacent to the project area; or

b. The proposed activity will affect only a limited part of the subject site.

2. Modifications to Required Contents. The applicant may consult with the Director prior to or during preparation of the critical areas report to obtain approval of modifications to the required contents of the report where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation. In some cases, such as when it is determined that no geologic hazard area is present, a full report may not be necessary to determine compliance with the critical area regulations, this chapter, and in those cases a letter or reconnaissance only report may be required.

3. Additional Information Requirements. The Director may require additional information to be included in the critical areas report when determined to be necessary to the review of the proposed activity in accordance with this chapter. Additional information that may be required includes, but is not limited to:

a. Historical data, including original and subsequent mapping, aerial photographs, data compilations and summaries, and available reports and records relating to the site or past operations at the site;

b. Grading and drainage plans; and

c. Information specific to the type, location, and nature of the critical area.

20.240.082 Mitigation plan requirements.

When mitigation is required, the applicant shall submit for approval by the City a mitigation plan as part of the critical area report. Mitigation plans shall meet the minimum requirements of SMC

20.240.080 and the applicable mitigation performance standards and requirements for the impacted type(s) of critical area(s) and buffer(s), including but not limited to SMC 20.240.250, 20.240.300, and 20.240.350. When the mitigation plan is submitted separately from other types or sections of the required critical area report(s), the mitigation plan shall meet the minimum content requirements of SMC 20.240.080(E) by inclusion or reference to other existing report(s). The mitigation plan shall include, at a minimum:

A. Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the mitigation proposed and including:

1. 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 shoreline ecological functions; and dates for beginning and completion of site compensation construction activities. The goals and objectives shall be related to the shoreline ecological functions provided by the impacted critical area; and
2. A review of the best available science supporting the proposed mitigation and a description of the report author's experience to date in restoring or creating the type of critical area proposed.

B. Performance Standards. The mitigation plan shall include measurable specific criteria for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained at the end of the required monitoring period and whether or not the requirements of this chapter, this Master Program, and the SMA have been met.

C. Detailed Construction Plans. The mitigation plan shall include written specifications and descriptions of the mitigation proposed, such as:

1. The proposed construction sequence, timing, and duration;
2. Site plans showing grading and excavation details with minimum two-foot contour intervals;
3. Erosion and sediment control features;

4. A planting plan specifying plant species, quantities, locations, size, spacing, and density; and

5. Measures to protect and maintain plants until established.

These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome.

D. Monitoring Program and Contingency Plan.

1. A monitoring program shall be included in the mitigation plan and implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives of the mitigation plan are being met.

2. A contingency plan shall be established for indemnity in the event that the mitigation project is inadequate or fails. Contingency plans include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met. Corrective measures will be required by the City when the qualified professional indicates, in a monitoring report, that the contingency actions are needed to ensure project success by the end of the monitoring period. A performance and maintenance bond, or other acceptable financial guarantee, is required to ensure the applicant's compliance with the terms of the mitigation agreement consistent with SMC 20.240.120, Financial guarantee requirements.

3. Monitoring programs prepared to comply with this section shall include, at a minimum, the following requirements:

a. Best available scientific procedures shall be used to establish the success or failure of the mitigation project. A protocol outlining the schedule for site monitoring (for example, monitoring shall occur in years zero (as-built), one, three, and five after site construction), and how the monitoring data will be evaluated to determine if the performance standards are being met.

b. For vegetation determinations, permanent sampling points shall be established.

c. Vegetative success shall, at a minimum, equal 80 percent survival of planted trees and shrubs and 80 percent cover of desirable understory or emergent plant species at the end of the required monitoring period. Alternative standards for vegetative success, including (but not limited to) minimum survival standards following the first growing season, may be required after consideration of recommendations provided in a critical area report or as otherwise required by the provisions of this chapter.

d. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the mitigation project. Monitoring reports on the current status of the mitigation project shall be submitted, consistent with subsection E of this section, to the City on the schedule identified in the monitoring plan, but not less than every other year. The reports are to be prepared by a qualified professional and reviewed by the City, or a qualified professional retained by the City, and should include monitoring information on wildlife, vegetation, water quality, water flow, stormwater storage and conveyance, and existing or potential degradation, as applicable.

e. Monitoring programs shall be established for a period necessary to establish that performance standards have been met, but not for less than a minimum of five years without approval from the Director.

f. If necessary, failures in the mitigation project shall be corrected.

g. Dead or undesirable vegetation shall be replaced with appropriate plantings.

h. Damage caused by erosion, settling, or other geomorphological processes shall be repaired.

i. The mitigation project shall be redesigned (if necessary) and the new design shall be implemented and monitored, as in subsection (D)(3)(d) of this section.

j. Correction procedures shall be approved by a qualified professional and the City.

k. If the mitigation goals are not obtained within the initial monitoring period, the applicant remains responsible for restoration of the impacted shoreline ecological functions provided by the critical areas or hazard risk reduction until the mitigation goals agreed to in the mitigation plan are achieved.

E. Monitoring Reports. Monitoring reports shall be submitted to the City consistent with the approved monitoring plan.

1. The as-built report, required prior to final inspection, shall, at a minimum, include documentation of the following to establish the baseline for monitoring:

a. Departures from the original approved plans;

b. Construction supervision provided by the qualified professional;

c. Approved project goals and performance standards;

d. Baseline data for monitoring per the approved monitoring methods;

e. Photos from established photo points; and

f. A site plan showing final mitigation as constructed or installed, monitoring points, and photo points.

2. Subsequent monitoring reports shall, at a minimum, include:

a. Monitoring visit observations, documentation, and analysis of monitoring data collected;

b. Photos from photo points;

c. Determination whether performance standards are being met; and

d. Maintenance and/or contingency action recommendations to ensure success of the project at the end of the monitoring period.

3. The applicant shall be responsible for the cost (at the current hourly rate) of review of monitoring reports and site inspections during the monitoring period, which are completed by the City or a qualified professional under contract with or employed by the City.

F. Cost Estimates. The mitigation plan shall include cost estimates that will be used by the City to calculate the amounts of financial guarantees, if necessary, to ensure that the mitigation plan is fully implemented. Financial guarantees ensuring fulfillment of the mitigation project,

monitoring program, and any contingency measures shall be posted in accordance with SMC 20.240.120, Financial guarantee requirements.

G. **Approved Mitigation Projects – Signature.** On completion of construction, an as-built report for any approved mitigation project shall be prepared and signed off by the applicant’s qualified professional and approved by the City. Signature of the qualified professional on the required as-built report and approval by the City will indicate that the construction has been completed as planned.

20.240.085 Pesticides, herbicides and fertilizers on City-owned property.

Pesticides, herbicides and fertilizers which have been identified by State or Federal agencies as harmful to humans, wildlife, or fish shall not be used in City-owned properties containing critical areas or their buffers within the shoreline jurisdiction except as allowed by the Director for the following circumstances:

A. When the Director determines that an emergency situation exists where there is a serious threat to public safety, health, or the environment, and that an otherwise prohibited application shall be used as a last resort.

B. Compost or fertilizer may be used for native plant revegetation projects in any location.

C. Limited pesticide and herbicide use may be applied pursuant to the King County Noxious Weed Control Board best management practices, specific to the species needing control, when that is determined to be the best method of control for the location. Federal, State, and local regulations of pesticides and water quality shall be followed, including requirements for pesticide applicator licensing from the Washington State Department of Agriculture.

20.240.090 Buffer areas.

The establishment of buffer areas shall be required for all development proposals and activities in or adjacent to critical areas within the shoreline jurisdiction. In all cases the standard buffer shall apply unless the Director determines that additional buffer width is necessary or reduced buffer is sufficient to protect the shoreline ecological functions consistent with the provisions of this chapter, this Master Program, the SMA, and the recommendations of a qualified professional. The purpose of the buffer shall be to protect the integrity, function, value and resource of the subject critical area for shoreline ecological function, and/or to protect life, property and resources from risks associated with development on unstable or critical lands.

The buffer shall consist of an undisturbed area of native vegetation. Buffers shall be protected during construction by placement of a temporary barricade if determined necessary by the City, on-site notice for construction crews of the presence of the critical area, and implementation of appropriate erosion and sedimentation controls. Restrictive covenants or conservation easements may be required to preserve and protect buffer areas.

20.240.100 Notice to title.

A critical area notice to title is required, as a condition of permit issuance or project approval, when a permit or development application is submitted for development on any property containing a critical area or buffer within the shoreline jurisdiction. The purpose is to inform subsequent purchasers of real property of the existence of critical areas. The notice to title applicable to the property shall be approved by the Director and City Attorney for compliance with this provision and be filed by the property owner, at their expense, with the King County Recorder's Office. This requirement can be met through recording of a notice to title prepared by the City, establishment of a critical area tract, or recording of native growth protection area easement consistent with the following provisions:

A. **Notice to Title.** A notice to title is required when a permit is required for development on any property containing a critical area or buffer within the shoreline jurisdiction. The notice shall state that critical areas or buffers have been identified on the property within the shoreline jurisdiction and that limitations on actions in or affecting the critical area or buffer may exist. The notice shall run with the land. The title holder will have the right to challenge this notice and to have it extinguished if the critical area designation no longer applies. However, the titleholder shall be responsible for completing a critical area report, subject to approval by the Director, before the notice on title can be extinguished.

B. **Critical Area Tract.** Subdivisions, short subdivisions, and binding site plans shall establish a separate critical areas tract as a permanent protective measure for wetlands, fish and wildlife habitat conservation areas, and landslide hazard areas and their buffers located within the shoreline jurisdiction. The plat or binding site plan for the project shall clearly depict the critical areas tract, and shall include all of the subject critical area, any required buffer, and any additional lands included voluntarily by the developer. Restrictions to development within the critical area tract shall be clearly noted on the plat or plan. Restrictions shall be consistent with the SMA, this Master Program, and this chapter for the entire critical area tract. Should the

critical area tract include several types of critical areas, the developer may establish separate critical areas tracts.

C. Native Growth Protection Area. Native growth protection area (NGPA) easements shall be required on a property where no subdivision, short subdivision, or binding site plan is proposed or required. Unless otherwise required in this chapter, NGPA easements shall be recorded on title for all affected parcels prior to approval of a development agreement, issuance of a master development plan permit, or issuance of a site development or building permit, when two or more dwelling units and/or nonresidential development are proposed on one parcel, to delineate and protect those contiguous wetlands, fish and wildlife habitat conservation, and landslide hazard critical areas and their buffers located within the shoreline jurisdiction. The easement to be recorded shall clearly depict the critical area and the limits of the NGPA easement and shall include all of the subject critical area(s) and any required buffer(s). Restrictions to development within the NGPA easement shall be clearly noted in the easement and shall include the following:

1. That native vegetation will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, limiting chemical applications of hazardous substances (pesticides, herbicides, fertilizers), maintaining slope stability, buffering, and protecting plants, fish, and animal habitat; and
2. The right of the City to enforce the terms of the restriction.

D. Proof of Notice. The applicant shall submit proof that the notice has been recorded on title before the City approves any development permit, including master development plan permits, for the property or, in the case of subdivisions, short subdivisions, binding site plans, or development agreements, at or before recording.

20.240.110 Permanent field marking.

A. All critical areas tracts, easements, and dedications, or as recommended by a qualified professional, shall be clearly marked on the site using permanent markings, placed at least every 50 feet, which include the following text:

City of Shoreline Designated Critical Area. Activities, including clearing and grading, removal of vegetation, pruning, cutting of trees or shrubs, planting of

nonnative species, and other alterations may be prohibited. Help protect and care for this area. Please contact the City of Shoreline with questions or concerns.

B. It is the responsibility of the landowner to maintain in perpetuity and replace if necessary all permanent field markings.

20.240.120 Financial guarantee requirements.

Bonds, and other financial guarantees, and associated performance agreements or maintenance/defect/monitoring agreements shall be required for projects with required mitigation or restoration of impacts to critical areas or critical area buffers consistent with the following:

A. A performance agreement and bond, or other acceptable financial guarantee, are required from the applicant when mitigation required pursuant to a development proposal is not completed prior to final permit approval, such as final plat approval or final building inspection. The amount of the performance bond(s) shall equal 125 percent of the cost of the mitigation project (after City mobilization is calculated).

B. A performance agreement and bond, or other acceptable financial guarantee, are required from the applicant when restoration is required for remediation of a critical area violation. The amount of the performance bond(s) shall equal 125 percent of the cost of the mitigation project (after City mobilization is calculated).

C. A maintenance/defect/monitoring agreement and bond, or other acceptable financial guarantee, are required to ensure the applicant's compliance with the conditions of the approved mitigation plan pursuant to a development proposal or restoration plan for remediation of a violation. The amount of the maintenance bond(s) shall equal 25 percent of the cost of the mitigation project (after City mobilization is calculated) in addition to the cost for monitoring for a minimum of five years. The monitoring portion of the financial guarantee may be reduced in proportion to work successfully completed over the period of the bond. The bonding period shall coincide with the monitoring period.

20.240.130 Unauthorized critical area alterations.

A. When a critical area or its buffer located within the shoreline jurisdiction has been altered in violation of this chapter, all ongoing development work shall stop and the critical area shall be restored. The City shall have the authority to issue a stop work order to cease all development.

and order restoration measures at the owner's or other responsible party's expense to remediate the impacts of the violation of the provisions of this chapter.

B. Requirement for Restoration Plan. All development shall remain stopped until a restoration plan is prepared by the responsible party and an approved permit is issued by the City. Such a plan shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in subsection C of this section. The Director may, at the responsible party's expense, seek expert advice, including but not limited to third party review by a qualified professional under contract with or employed by the City, in determining if the plan meets the minimum performance standards for restoration. Submittal, review, and approval of required restoration plans for remediation of violations of this chapter, Critical Areas, shall be completed through a site development permit application process.

C. Minimum Performance Standards for Restoration.

1. For alterations to aquifer recharge areas, wetlands, and fish and wildlife habitat conservation areas, the following minimum performance standards shall be met for the restoration; provided, that if the violator can demonstrate that greater shoreline ecological functions provided through the functions and values provided by these critical areas can be obtained, these standards may be modified:

a. The pre-violation function and values of the affected critical areas and buffers shall be restored, including water quality and habitat functions;

b. The critical area and buffers shall be replanted with native vegetation that replicates the vegetation historically, or pre-violation, found on the site in species types, sizes, and densities. The pre-violation functions and values should be replicated at the location of the alteration; and

c. Information demonstrating compliance with the requirements in SMC 20.240.082, Mitigation plan requirements, and the applicable mitigation sections for the affected type(s) of critical area(s) and their buffer(s) shall be submitted to the Director with a complete site development permit application.

2. For alterations to flood hazard and geologic hazard areas, the following minimum performance standards shall be met for the restoration of a critical area; provided, that if the

violator can demonstrate that greater safety can be obtained, these standards may be modified:

a. The hazard shall be reduced to a level equal to, or less than, the pre-violation hazard;

b. Any risk of personal injury resulting from the alteration shall be eliminated or minimized; and

c. The hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.

D. Site Investigation. The Director is authorized to take such actions as are necessary to enforce this chapter. The Director shall present proper credentials and obtain permission before entering onto private property.

E. Penalties. Any responsible party violating of any of the provisions of this chapter may be subject to any applicable penalties per SMC 20.30.770, WAC 173-27-240, and RCW 90.58.200 and 90.58.210, as amended from time to time.

Subchapter 2.

Geologic Hazard Areas

20.240.210 Geologic hazards – Designation and purpose.

A. Geologic hazard areas are those lands that are susceptible to erosion, landsliding, seismic, or other geological events as identified by WAC 365-190-120, as amended from time to time. These areas may not be suited for development activities because these areas may pose a threat to public health and safety. These areas also provide important shoreline ecological functions. Eroding coastal bluffs, called feeder bluffs, are the primary source of sediment for Puget Sound beaches and contribute to vital coastal processes. However, since most of the city's coastline consists of BNSF railroad right-of-way, opportunity for the natural erosion and sediment transport process is limited.

Areas susceptible to one or more of the following types of hazards shall be designated as geologic hazard areas:

1. Landslide hazard:

2. Seismic hazard;

3. Erosion hazard.

B. The primary purposes of geologic hazard area regulations are to avoid and minimize potential impacts to life and property from geologic hazards, conserve soil resources, protect shoreline ecological functions, and minimize structural damage relating to seismic hazards. This purpose shall be accomplished through appropriate levels of study and analysis, application of sound engineering principles, and regulation or limitation of land uses, including maintenance of existing vegetation, regulation of clearing and grading activities, and control of stormwater.

20.240.220 Geologic hazards – Classification.

Geologic hazard areas shall be classified according to the criteria in this section as follows:

A. **Landslide Hazard Areas.** Landslide hazard areas are those areas potentially subject to landslide activity based on a combination of geologic, topographic and hydrogeologic factors as classified in subsection B of this section with slopes 15 percent or steeper within a vertical elevation change of at least 10 feet or all areas of prior landslide activity regardless of slope. A slope is delineated by establishing its toe and top, and measuring the inclination over 10 feet of vertical relief (see Figure 20.240.220(A)). The edges of the geologic hazard are identified where the characteristics of the slope cross-section change from one landslide hazard classification to another, or no longer meet any classification. Additionally:

1. The toe of a slope is a distinct topographic break which separates slopes inclined at less than 15 percent from slopes above that are 15 percent or steeper when measured over 10 feet of vertical relief; and

2. The top of a slope is a distinct topographic break which separates slopes inclined at less than 15 percent from slopes below that are 15 percent or steeper when measured over 10 feet of vertical relief.

Slope Delineation

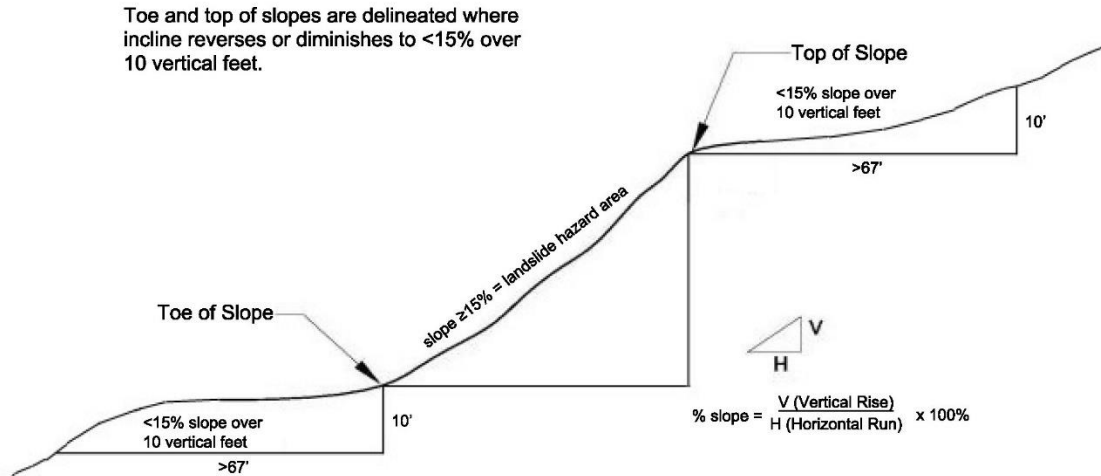


Figure 20.240.220(A): Illustration of slope calculation for determination of top and toe of landslide hazard area.

B. Landslide Hazard Area Classification. Landslide hazard areas are classified as follows:

1. Moderate to High Risk.

- a. Areas with slopes between 15 percent and 40 percent and that are underlain by soils that consist largely of sand, gravel or glacial till that do not meet the criteria for very high risk areas in subsection (B)(2) of this section;
- b. Areas with slopes between 15 percent and 40 percent that are underlain by soils consisting largely of silt and clay and do not meet the criteria for very high risk areas in subsection (B)(2) of this section; or
- c. All slopes of 10 to 20 feet in height that are 40 percent slope or steeper and do not meet the criteria for very high risk in subsection (B)(2)(a) or (b) of this section.

2. Very High Risk.

- a. Areas with slopes steeper than 15 percent with zones of emergent water (e.g., springs or ground water seepage);

b. Areas of landslide activity (scarps, movement, or accumulated debris) regardless of slope; or

c. All slopes that are 40 percent or steeper and more than 20 feet in height when slope is averaged over 10 vertical feet of relief.

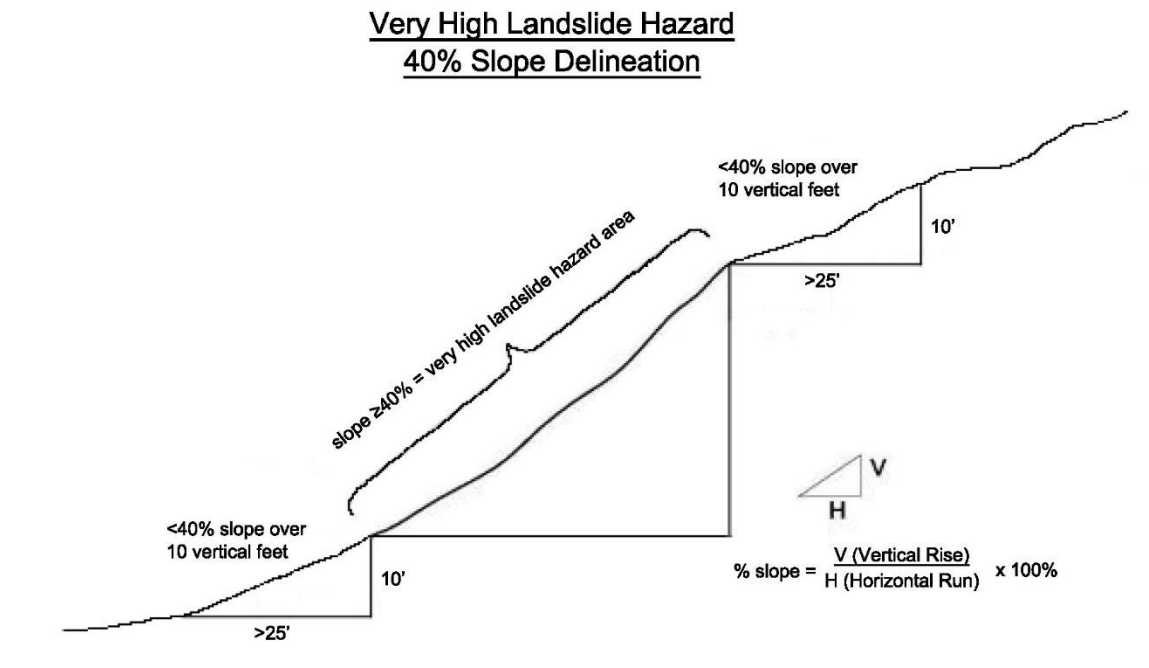


Figure 20.240.220(B): Illustration of very high risk landslide hazard area delineation (no midslope bench).

C. **Seismic Hazard Areas.** Seismic hazard areas are lands that, due to a combination of soil and ground water conditions, are subject to risk of ground shaking, lateral spreading, subsidence or liquefaction of soils during earthquakes. These areas are typically underlain by soft or loose saturated soils (such as alluvium) or peat deposits and have a shallow ground water table. These areas are designated as having “high” and “moderate to high” risk of liquefaction as mapped on the Liquefaction Susceptibility and Site Class Maps of Western Washington State by County by DNR.

D. **Erosion Hazard Areas.** Erosion hazard areas are lands or areas underlain by soils identified by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (formerly the Soil Conservation Service) as having “severe” or “very severe” erosion hazards. This includes, but is not limited to, the following group of soils when such soils occur

on slopes of 15 percent or greater: Alderwood-Kitsap (AkF), Alderwood gravelly sandy loam (AgD), Kitsap silt loam (KpD), Everett (EvD) and Indianola (InD).

20.240.222 Geologic hazards – Mapping.

A. The approximate location and extent of geologic hazard areas are shown on City of Shoreline geologic hazard data layers maintained in the City geographic information system (GIS) and shown in Figure 20.230.080. In addition, the following maps and resources providing information on the location and extent of geologic hazard areas are hereby adopted by reference as amended:

1. Department of Ecology coastal zone atlas (for marine bluffs);
2. U.S. Geological Survey geologic maps, landslide hazard maps, and seismic hazard maps;
3. DNR seismic hazard maps for Western Washington, including, but not limited to, the Liquefaction Susceptibility and Site Class Maps of Western Washington State by County;
4. DNR slope stability maps; and
5. Soils maps produced by the USDA National Resources Conservation Service.

B. The critical areas maps and the resources cited above are to be used as a guide for the City of Shoreline Planning and Community Development Department, project applicants, and/or property owners and may be continuously updated as new critical areas are identified. These maps and resources are a reference and do not provide a final critical area designation.

20.240.224 Geologic hazards – Development standards.

A. Development, activities, and uses shall be allowed in geologic hazard areas and their required buffers only as provided for in this chapter.

B. Activities Allowed in All Geologic Hazard Areas and Buffers. The activities listed below are allowed in the identified geologic hazard areas types pursuant to SMC 20.240.040, Allowed activities, and subject to applicable permit approvals. These activities do not require submission of a critical area report.

1. All allowed activities per SMC 20.240.040;

2. Installation of fences as allowed without a building permit in Chapter 20.50 SMC, General Development Standards;

3. Nonstructural interior remodel, maintenance, or repair of structures which do not meet the standards of this chapter, if the maintenance or repair does not increase the footprint or height of the structure and there is no increased risk to life or property as a result of the proposed maintenance or repair; and

C. Alteration. The City may approve, condition, or deny proposals in a geologic hazard area based upon the effective mitigation of risks posed to property, health and safety and compensation of the loss of shoreline ecological functions. The objective of mitigation measures shall be to render a site containing a geologic hazard as safe as one not containing such hazard. Conditions may include applicable stormwater management practices, limitations of proposed uses, modification of density, alteration of site layout, and other appropriate changes to the proposal.

Where potential impacts cannot be effectively mitigated to ensure no net loss of the shoreline ecological functions provided by the critical area, and to eliminate a significant risk to public health and safety and property or other critical area, the proposal shall be denied, except as granted by a shoreline variance consistent with 20.220.040.

D. Alteration of Moderate to High Risk Landslide Hazards. Development activities and uses that result in unavoidable alterations may be permitted in moderate to high risk landslide hazard areas or their buffers in accordance with an approved geologic hazard critical area report. The recommendations contained within the critical area report shall be incorporated into the proposed alteration of the landslide hazard area or its buffers.

The critical area report shall certify that:

1. The risk of damage from the proposal, both on site, and off site, are minimal subject to the conditions set forth in the report;

2. The proposal will not increase the risk of occurrence of the potential landslide hazard; and

3. Measures to eliminate or reduce risks have been incorporated into the report's recommendations and project development plans.

E. Alteration of Very High Risk Landslide Hazard Areas. Alterations of a very high risk landslide hazard area and/or buffer may only occur for activities for which a critical area report with a hazards analysis is submitted and certifies that:

1. The development will not increase surface water discharge or sedimentation on site or to adjacent properties beyond pre-development conditions;
2. The development will not decrease slope stability on the site or on adjacent properties;
3. Such alterations will meet other critical areas regulations; and
4. The design criteria in subsection F of this section are met.

F. Design Criteria for Alteration of Very High Risk Landslide Hazard Areas. Development within a very high risk landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative project design provides greater short- and long-term slope stability while meeting all other provisions of this chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design criteria are:

1. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Proposed alteration of natural slopes, that does not include structures, shall not decrease the factor of safety for landslide occurrences below the limits of 1.3 for static conditions and 1.0 for seismic. Where the existing conditions are below these limits, the proposed development shall increase the factor of safety to these limits or will not be permitted. Analysis of dynamic conditions shall be based on the seismic event as established by the current version of the International Building Code;
2. New structures and improvements shall be clustered to avoid geologic hazard areas and other critical areas;
3. New structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;

4. New structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;

5. The proposed development shall not result in greater risk of the hazard or a need for increased buffers on neighboring properties;

6. Where the existing natural slope area cannot be retained undisturbed with native vegetation, the use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and

7. Development shall be designed to minimize impervious lot coverage and preserve native vegetation and trees to the maximum extent practicable.

G. Additional Requirements for Alteration of Very High Risk Hazard Landslide Areas.

1. Prior to application, the applicant shall meet the requirements of and conduct a neighborhood meeting consistent with SMC 20.30.090. The notification area shall be limited to:

a. All property owners whose properties adjoin the subject property; and

b. Properties that include part of the subject property's very high risk landslide hazard area and the standard 50-foot buffer, but not to exceed a maximum of 200 feet from the project clearing limits.

2. Prior to permit issuance, the property owner shall sign and record on title, at the owner's sole expense, a covenant in a form acceptable to the City, which:

a. Acknowledges and accepts the risks of development in the landslide hazard area;

b. Waives any rights to claims against the City;

c. Indemnifies and holds harmless the City against claims, losses, and damages;

d. Informs subsequent owners of the property of the risks and the covenant; and

e. Advisability of obtaining added insurance.

3. Prior to permit issuance, the piling and excavation contractors shall submit insurance bonding documentation that includes coverage for subsidence and underground property damage, listing the City as an additional insured. The Director may require adequate bonds and/or insurance to cover potential claims for property damage that may arise from or be related to the following:

a. Excavation or fill within a landslide-prone area when the depth of the proposed excavation exceeds four feet and the bottom of the proposed excavation is below the 100 percent slope line (45 degrees from a horizontal line) from the property line; or

b. In other circumstances where the Director determines that there is a potential for significant harm to any type of critical area or a critical area buffer during the construction process.

4. If the Building Official has reasonable grounds to believe that an emergency exists because significant changes in geologic conditions at a project site or in the surrounding area may have occurred since a permit was issued, increasing the risk of damage to the proposed development, to neighboring properties, or to nearby surface waters, the building official may, by letter or other reasonable means of notification, suspend the permit until the applicant has submitted a letter of certification. The letter of certification shall be based on such factors as the presence of known slides, indications of changed conditions at the site or the surrounding area, or other indications of unstable soils and meet the following requirements:

a. The letter of certification shall be from the current project qualified professional geotechnical engineer of record stating that a qualified professional geotechnical engineer has inspected the site and area surrounding the proposed development within the 60 days preceding submittal of the letter; and that:

i. In the project geotechnical engineer's professional opinion no significant changes in conditions at the site or surrounding area have occurred that render invalid or out-of-date the analysis and recommendations contained in the technical reports and other application materials previously submitted to the City as part of the application for the permit; or that

ii. In the project geotechnical engineer's professional opinion, changes in conditions at the site or surrounding area have occurred that require revision to project criteria and that all technical reports and any necessary revised drawings that account for the changed conditions have been prepared and submitted.

5. The letter of certification and any required revisions shall be reviewed and approved by the City's third party qualified professional, at the applicant's expense, before the Building Official may allow work to continue under the permit.

H. Alteration of Seismic Hazard Areas. Development activities and uses in seismic hazard areas may be permitted, based on review of a critical area report demonstrating that the project is consistent with SMC 20.240.053(A)(2) through (6). The report shall certify that the risks of damage from the proposal, both on site and off site, are minimal subject to the conditions set forth in the report, that the proposal will not increase the risk of occurrence of the potential hazard, and that measures to eliminate or reduce risks have been incorporated into the report's recommendations. The report shall include the following:

1. For one-story and two-story detached residential structures, a qualified professional shall conduct an evaluation of site response and liquefaction potential based on current mapping, site reconnaissance, research of nearby studies.

2. For all other proposals, the qualified professional shall conduct an evaluation of site response and liquefaction potential including sufficient subsurface exploration to determine the site coefficient for use in the static lateral force procedure described in the International Building Code.

I. Alteration of Erosion Hazard Areas. Development activities and uses in erosion hazard areas may be permitted, based on review of a critical area report demonstrating that the project is consistent with SMC 20.240.053(A)(2) through (6) and the following provisions:

1. All development proposals on sites containing erosion hazard areas shall include a stormwater pollution prevention plan consistent with the requirements of the adopted stormwater manual and a mitigation plan to ensure revegetation and permanent stabilization of the site. Specific requirements for revegetation in mitigation plans shall be consistent with the mitigation plan requirements in SMC 20.240.082 and the mitigation performance standards for geologic hazard areas in SMC 20.240.250. Revegetation for site stabilization

may be combined with required landscape, tree retention, and/or other critical area mitigation plans as appropriate.

2. All subdivisions, short subdivisions or binding site plans on sites with erosion hazard areas shall comply with the following additional requirements:

a. Except as provided in this section, existing vegetation shall be retained on all lots until building permits are approved for development on individual lots;

b. If any vegetation on the lots is damaged or removed during construction of the subdivision infrastructure, the applicant shall be required to implement the revegetation plan in those areas that have been impacted prior to final inspection of the site development permit or the issuance of any building permit for the subject property;

c. Clearing of vegetation on individual lots may be allowed prior to building permit approval if the City determines that:

i. Such clearing is a necessary part of a large-scale grading plan,

ii. It is not feasible to perform such grading on an individual lot basis, and

iii. Drainage from the graded area will meet established water quality standards.

3. Where the City determines that erosion from a development site poses a significant risk of damage to downstream receiving water, the applicant shall be required to provide regular monitoring of surface water discharge from the site during the project construction or installation. If the project does not meet water quality standards, the City may suspend further development work on the site until such standards are met.

4. The City may require additional mitigation measures in erosion hazard areas, including, but not limited to, the restriction of major soil-disturbing activities associated with site development between October 1st and April 30th to meet the stated purpose contained in SMC 20.240.010 and 20.240.210.

5. The use of hazardous substances, pesticides and fertilizers in erosion hazard areas may be prohibited by the City.

20.240.230 Geologic hazard areas – Required buffer areas.

A. Buffers for geologic hazard areas shall be maintained as undisturbed native vegetation consistent with SMC 20.240.090. Building and other improvement setbacks will be required in addition to buffers as recommended by the qualified professional to allow for landscaping, access around structures for maintenance, and location of stormwater facilities at safe distances from geologic hazard areas where native vegetation is not necessary to reduce the risk of the hazard.

B. Required buffer widths for geologic hazard areas shall reflect the sensitivity of the hazard area and the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the area.

C. In determining the appropriate buffer width, the City shall consider the recommendations contained in a geotechnical critical area report required by these regulations.

D. For moderate to high risk landslide hazard areas, the qualified professional shall recommend whether buffers should be required and the width of those buffers, as well as recommending any additional setbacks for buildings and stormwater facilities adequate to certify no increase in the risk of the hazard.

E. For very high risk landslide hazard areas, the standard buffer shall be 50 feet from all edges of the landslide hazard area. Larger buffers may be required as needed to eliminate or minimize the risk to people and property based on a geotechnical critical area report. The standard buffer may be reduced when geotechnical studies demonstrate, and the qualified professional certifies, that the reduction will not increase the risk of hazard to people or property, on or off site; however, the minimum buffer shall be 15 feet.

F. Landslide hazard areas and associated buffers shall be placed either in a separate tract on which development is prohibited, protected by execution of an easement, dedicated to a conservation organization or land trust, or similarly preserved through a permanent protective mechanism acceptable to the City. The location and limitations associated with the critical landslide hazard and its buffer shall be shown on the face of the deed or plat applicable to the property and shall be recorded with the King County Recorder's Office.

20.240.240 Geologic hazards – Critical area report requirements.

A. Report Required. If the Director determines that the site of a proposed development includes, is likely to include, or is adjacent to a geologic hazard area, a critical area report shall be required, at the applicant's expense. Critical area report requirements for geologic hazard areas are met through submission to the Director of one or more geologic hazard critical area reports (also referred to as geotech or geotechnical engineering reports). In addition to the general critical areas report requirements of SMC 20.240.080, critical areas reports for geologic hazard areas shall meet the requirements of this section. Critical areas reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.

B. Preparation by a Qualified Professional. Critical areas reports for potential geologic hazard areas shall be prepared, stamped, and signed by a qualified geotechnical engineer or engineering geologist licensed in the State of Washington, with minimum required experience, per SMC 20.20.042, analyzing geologic, hydrologic, and ground water flow systems, and who has experience preparing reports for the relevant type of hazard. If mitigation measures are necessary, the report detailing the mitigation measures and design of the mitigation shall be prepared by a qualified professional with experience stabilizing geologic hazard areas with similar geotechnical properties and by a qualified vegetation ecologist, landscape architect, or arborist with experience designing and monitoring vegetative stabilization of geologic hazard areas.

C. Third Party Review Required. Critical areas studies and reports on geologically hazardous areas will be subject to third party review at the owner's sole expense as provided in SMC 20.240.080(C) and in the following circumstances:

1. A buffer reduction or alteration of the critical area or buffer is proposed for a very high risk landslide hazard areas.

D. Minimum Report Contents for Geologic Hazard Areas. A critical area report for geologic hazard areas shall include a field investigation, contain an assessment of whether or not each type of geologic hazard identified in SMC 20.240.210 is present or not present, and determine if the proposed development of the site will increase the risk of the hazard on or off site. The written critical area report(s) and accompanying plan sheet(s) shall contain the following information at a minimum:

1. The minimum report contents required per SMC 20.240.080(E);

2. Documentation of any fieldwork performed on the site, including field data sheets for soils, test pit locations, baseline hydrologic data, site photos, etc.;

3. A description of the methodologies used to conduct the geologic hazard areas delineations, classifications, hazards assessments and/or analyses of the proposal impacts including references;

4. **Site and Construction Plans.** The report shall include a copy of the site plans for the proposal, drawn at an engineering scale, showing:

a. The type and extent of geologic hazard areas, any other critical areas, and buffers on, adjacent to, off site within 200 feet of, or that are likely to impact or be affected by the proposal;

b. Proposed development, including the location of existing and proposed structures, fill, significant trees to be removed, vegetation to be removed, storage of materials, and drainage facilities;

c. The topography, in two-foot contours, of the project area and all hazard areas addressed in the report;

d. Height of slope, slope gradient, and cross-section of the project area;

e. The location of springs, seeps, or other surface expressions of ground water on or off site within 200 feet of the project area or that have the potential to affect or be affected by the proposal;

f. The location and description of surface water on or off site within 200 feet of the project area or that has the potential to be affected by the proposal; and

g. Clearing limits, including required tree protection consistent with SMC 20.50.370.

5. **Stormwater Pollution Prevention Plan (SWPPP).** For any development proposed with land-disturbing activities on a site containing a geologic hazard area, a stormwater pollution prevention plan (also known as an erosion and sediment control plan) shall be required. The SWPPP, in compliance with the requirements of Chapter 13.10 SMC, shall be included in the critical area report or be referenced if it is prepared separately.

6. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted classification systems in use in the region. The assessment shall include, but not be limited to:

a. A detailed overview of the field investigations, published data, and references; data and conclusions from past assessments of the site; and site-specific measurements, tests, investigations, or studies that support the identification of geologically hazardous areas; and

b. A summary of the existing site conditions, including:

i. Surface topography, existing features, and vegetation found in the project area and in all hazard areas addressed in the report;

ii. Surface and subsurface geology and soils to sufficient depth based on data from site-specific explorations;

iii. Geologic cross-section(s) displaying the critical design conditions;

iv. Surface and ground water conditions; and

c. A description of the vulnerability of the site to seismic and other geologic events.

7. Analysis of Proposal. The report shall contain a hazards analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its potential impact upon the identified hazard area(s), the subject property, and affected adjacent properties. The hazards analysis component of the critical areas report shall include the following based on the type(s) of geologic hazard areas identified:

a. Recommendations for the minimum buffer consistent with SMC 20.240.230 and recommended minimum drainage and building setbacks from any geologic hazard based upon the geotechnical analysis. Buffers shall be maintained consistent with SMC 20.240.090; however, the qualified professional may recommend additional setbacks for

drainage facilities or structures which do not have to be maintained as undisturbed native vegetation; and

b. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion.

E. Additional Technical Information Requirements for Landslide Hazard Areas. The technical information required in a critical area report for a project within a landslide hazard area shall also include the following:

1. An estimate of the present stability of the subject property, the stability of the subject property during construction, the stability of the subject property after all development activities are completed, and a discussion of the relative risks and slide potential relating to adjacent properties during each stage of development, including the effect construction and placement of structures, clearing, grading, and removal of vegetation will have on the slope over the estimated life of the structure;

2. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event;

3. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on downslope properties;

4. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;

5. Compliance with the requirements of SMC 20.240.224(D) for alterations proposed in moderate to high risk landslide hazard areas;

6. Compliance with the requirements of SMC 20.240.224(E) through (G) for alterations proposed in very high risk landslide hazard areas;

7. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities for bearing and lateral loads, installation considerations, and estimates of settlement performance;

8. Recommendations for drainage and subdrainage improvements;

9. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and

10. Mitigation of adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate.

F. Additional Technical Information Requirements for Seismic Hazard Areas. The technical information required in a critical area report for a project within a seismic hazard area shall also include the following:

1. A complete discussion of the potential impacts of seismic activity on the site (for example, forces generated and fault displacement);

2. Additionally, a geotechnical engineering report for a seismic hazard area shall evaluate the physical properties of the subsurface soils, especially the thickness of unconsolidated deposits and their liquefaction potential. If it is determined that the site is subject to liquefaction, mitigation measures appropriate to the scale of the development shall be recommended and implemented; and

3. Any additional information or analysis necessary to demonstrate compliance with the standards for alteration in seismic hazard areas in SMC 20.240.224(H).

G. Limited Report Requirements for Stable Erosion Hazard Areas. When recommended by the qualified professional for sites only overlain by erosion hazard areas with suitable slope stability, and no other type of critical area or buffer, detailed critical areas report requirements may be waived. Report requirements for stable erosion hazard areas may be met through construction documents that shall include at a minimum a stormwater pollution plan prepared in compliance with requirements set forth in Chapter 13.10 SMC.

H. Mitigation of Long-Term Impacts. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains or reduces the preexisting level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected lifespan of the activity or occupation). Proposed mitigation techniques shall be considered to provide long-term hazard reduction only if such techniques do not require regular maintenance or other actions to maintain their function. Mitigation may also be required to avoid any increase in risk above the preexisting conditions following abandonment of the activity.

I. **Additional Information.** When appropriate due to the proposed impacts or the project area conditions, the Director may also require the critical area report to include:

1. Where impacts are proposed, mitigation plans consistent with the requirements of SMC 20.240.082 and the geologic hazards mitigation performance standards and requirements of SMC 20.240.250;
2. A request for consultation with WDFW, the Department of Ecology, local Native American Indian tribes, or other appropriate agency; and
3. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

20.240.250 Geologic hazards – Mitigation performance standards and requirements.

A. Requirements for Mitigation. Mitigation is required for proposed adverse impacts and increased risks due to alteration of geologic hazard areas and shall be sufficient to result in no increased risk of the hazard consistent with the development standards in SMC 20.240.224. Mitigation plans shall be submitted as part of the required critical area report, consistent with the requirements of SMC 20.240.080, 20.240.082, and 20.240.240, and this section. When revegetation is required as part of the mitigation, then the mitigation plan shall meet the standards of SMC 20.240.350(H), excluding those standards that are wetland specific.

B. Preference of Mitigation Actions. Methods to achieve mitigation for alterations of geologic hazard areas shall be approached in the following order of preference:

1. **Protection.** Mitigation measures that increase the protection of the identified geologic hazard areas include, but are not limited to:
 - a. Increased or enhanced buffers;
 - b. Setbacks for permanent and temporary structures;
 - c. Reduced project scope; and
 - d. Retention of existing vegetation.
2. **Restoration.** Restoration of native vegetation.

3. **Engineered Stabilization.** Engineered design of geologic hazard stabilization to ensure no increased risk of the hazard due to the proposal with preference for bioengineering over structural engineered solutions.

C. **Performance Standards.** The following performance standards shall apply to any mitigation for development proposed within geologic hazard areas:

1. Geotechnical studies shall be prepared by a qualified professional to identify and evaluate potential hazards and to formulate mitigation measures;
2. Construction methods will reduce or not adversely affect geologic hazards;
3. Site planning to minimize disruption of existing topography and natural vegetation;
4. Significant trees shall be preserved, unless removal is unavoidable or otherwise allowed under the provisions of this chapter;
5. Minimize impervious surface coverage;
6. Replant disturbed areas as soon as feasible pursuant to an approved landscape plan. When planting is required, the following standards shall apply:
 - a. Native species, indigenous to the region, shall be used in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers;
 - b. Plant selection shall be consistent with the existing or projected site conditions, including slope aspect, moisture, and shading;
 - c. Plants should be commercially available or available from local sources;
 - d. Plant species high in food and cover value for fish and wildlife shall be used;
 - e. Mostly perennial species should be planted;
 - f. Committing significant areas of the site to species that have questionable potential for successful establishment shall be avoided;
 - g. Plant selection, densities, and placement of plants shall be determined by a qualified professional and shown on the design plans;

h. Stockpiling soil and construction materials should be confined to upland areas and contract specifications should limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the City;

i. Planting instructions shall be submitted which describe placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock;

j. Controlled release fertilizer shall be applied (if required) at the time of planting and afterward only as plant conditions warrant as determined during the monitoring process;

k. An irrigation system shall be installed, if necessary, for the initial establishment period; and

l. The heterogeneity and structural diversity of vegetation shall be emphasized in landscaping;

7. Clearing and grading regulations as set forth by the City, in SMC 20.50.290 through 20.50.370, shall be followed;

8. The use of retaining walls that allow maintenance of existing natural slope areas are preferred over graded slopes;

9. All construction specifications and methods shall be approved by a qualified professional and the City;

10. Construction management shall be provided by a qualified professional. Ongoing work on site shall be inspected by the City;

11. Site drainage design and temporary erosion and sedimentation controls, pursuant to an approved stormwater pollution prevention plan consistent with the adopted stormwater manual, shall be implemented during and after construction;

12. Undevelopable geologic hazard areas larger than one-half acre shall be placed in a separate tract, provided this requirement does not make the lot nonconforming;

13. A monitoring program shall be prepared for construction activities permitted in geologic hazard areas; and

14. Development shall not increase instability, create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion and adequate mitigation shall be incorporated into the project design to comply with the requirements of SMC 20.240.224 and 20.240.230.

Subchapter 3.

Fish and Wildlife Habitat Conservation Areas

20.240.260 Fish and wildlife habitat – Description and purpose.

A. Fish and wildlife habitat conservation areas (or habitat conservation areas) are lands managed for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. Fish and wildlife habitat conservation areas include areas with which State and Federal designated threatened, endangered, and sensitive species have a primary association as well as priority species and habitats listed by WDFW, including corridors which connect priority habitat, and those areas which provide habitat for species of local significance, which have been or may be identified in the City of Shoreline Comprehensive Plan. Fish and wildlife habitat conservation areas also include stream areas and buffers which provide important habitat corridors; help maintain water quality; store and convey stormwater and floodwater; recharge ground water; and serve as areas for recreation, education, scientific study, and aesthetic appreciation.

B. The purpose of fish and wildlife habitat conservation areas shall be to protect and conserve the habitat of fish and wildlife species and thereby maintain or increase their populations. The primary purpose of this section is to minimize development impacts to fish and wildlife habitat conservation areas and to:

1. Protect Federal and State listed habitats and species and give special attention to protection and enhancement of anadromous fish populations; and
2. Maintain a diversity of species and habitat within the City; and
3. Coordinate habitat protection to maintain and provide habitat connections; and
4. Help maintain air and water quality and control erosion.

20.240.270 Fish and wildlife habitat – Classification and designation.

A. The City designates the following fish and wildlife habitat conservation areas that meet one or more of the criteria in subsection B of this section, regardless of any formal identification, as critical area, and, as such, these areas are subject to the provisions of this chapter. These areas shall be managed consistent with best available science; including WDFW’s Management Recommendations for Priority Habitat and Species. The following fish and wildlife habitat conservation areas are specifically designated, and this designation does not preclude designation of additional areas as consistent with the criteria in subsection B of this section:

1. All regulated streams and wetlands and their associated buffers as determined by a qualified specialist.
2. The waters, bed and shoreline of Puget Sound up to the OHWM.

B. Fish and wildlife habitat conservation areas are those areas designated by the City based on review of the best available science; input from WDFW, the Department of Ecology, USACE, and other agencies; and any of the following criteria:

1. Areas Where State or Federally Designated Endangered, Threatened, and Sensitive Species Have a Primary Association.

a. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status. Federally designated endangered and threatened species known to be identified and mapped by the Washington State Department of Wildlife in Shoreline include, but may not be limited to, the following:

- i. Chinook (Oncorhynchus tshawytscha);
- ii. Southern resident orca or killer whales (Orcinus orca).

b. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the State of Washington that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the State without

cooperative management or removal of threats as identified by WDFW. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (State endangered species) and WAC 232-12-011 (State threatened and sensitive species), as amended from time to time. WDFW maintains the most current listing and should be consulted for current listing status. State designated endangered, threatened, and sensitive species known to be identified and mapped by WDFW in Shoreline include, but may not be limited to, the following:

i. Northern goshawk (Accipiter gentilis);

ii. Purple martin (Progne subis).

2. State Priority Habitats and Species. Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by WDFW in the Priority Habitats and Species List. Priority habitats and species known to be identified and mapped by WDFW in Shoreline include, but may not be limited to, the following:

a. Biodiversity areas and corridors identified and mapped along Boeing Creek and in and around Innis Arden Reserve Park;

b. Chinook/fall chinook (Oncorhynchus tshawytscha);

c. Coho (Oncorhynchus kisutch);

d. Dungeness crab (Cancer magister);

e. Estuarine intertidal aquatic habitat;

f. Geoduck (Panopea abrupta);

g. Northern goshawk (Accipiter gentilis);

h. Pacific sand lance (Ammodytes hexapterus);

i. Purple martin (Progne subis);

j. Resident coastal cutthroat (Oncorhynchus clarki);

k. Surf smelt (Hypomesus pretiosus); and

l. Winter steelhead (Oncorhynchus mykiss).

3. **Commercial and Recreational Shellfish Areas.** These areas include all public and private tidelands or bedlands suitable for shellfish harvest, including shellfish protection districts established pursuant to Chapter 90.72 RCW, as amended from time to time.

4. Kelp and eelgrass beds and herring and smelt spawning areas.

5. **Waters of the State.** Waters of the State include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington, as classified in WAC 222-16-030, as amended from time to time. Streams are those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless such watercourses are used by fish or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year-round; provided, that there is evidence of at least intermittent flow during years of normal rainfall. Streams shall be classified in accordance with the DNR water typing system (WAC 222-16-030) hereby adopted in its entirety by reference and summarized as follows:

a. Type S: streams inventoried as “shorelines of the State” under the SMA and the rules promulgated pursuant to the SMA, as amended from time to time;

b. Type F: streams which contain fish habitat. Not all streams that are known to exist with fish habitat support anadromous fish populations, or have the potential for anadromous fish occurrence because of obstructions, blockages or access restrictions resulting from existing conditions. Therefore, in order to provide special consideration of and increased protection for anadromous fish in the application of development standards, shoreline streams shall be further classified as follows:

i. **Anadromous Fish-Bearing Streams (Type F-Anadromous).** These streams include:

(A) Fish-bearing streams where naturally recurring use by anadromous fish populations has been documented by a government agency;

(B) Streams that are fish passable or have the potential to be fish passable by anadromous populations, including those from Lake Washington or Puget Sound, as determined by a qualified professional based on review of stream flow, gradient and natural barriers (i.e., natural features that exceed jumping height for salmonids), and criteria for fish passability established by WDFW; and

(C) Streams that are planned for restoration in a six-year capital improvement plan adopted by a government agency or planned for removal of the private dams that will result in a fish-passable connection to Lake Washington or Puget Sound; and

ii. **Nonanadromous Fish-Bearing Streams (Type F-Nonanadromous).** These include streams which contain existing or potential fish habitat, but do not have the potential for anadromous fish use due to natural barriers to fish passage, including streams that contain resident or isolated fish populations.

The general areas and stream reaches with access for anadromous fish are indicated in the City of Shoreline Stream and Wetland Inventory and Assessment (2004) and basin plans. The potential for anadromous fish access shall be confirmed in the field by a qualified professional as part of a critical area report;

c. Type Np: perennial nonfish habitat streams;

d. Type Ns: seasonal nonfish habitat streams; and

e. Piped stream segments: those segments of streams, regardless of their type, that are fully enclosed in an underground pipe or culvert.

20.240.272 Fish and wildlife habitat – Mapping.

A. **Mapping.** The approximate location and extent of fish and wildlife habitat areas are shown in the data layers maintained in the City geographic information system (GIS) and shown in

Figure 20.230.080. In addition, the following maps and inventories are hereby adopted by reference as amended:

1. WDFW Priority Habitat and Species maps;
2. DNR Official Water Type Reference maps;
3. DNR Puget Sound Intertidal Habitat Inventory maps;
4. DNR Shorezone Inventory;
5. DNR Natural Heritage Program mapping data;
6. Washington State Department of Health Annual Inventory of Shellfish Harvest Areas;
7. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors reports published by the Washington State Conservation Commission; and
8. DNR State Natural Area Preserves and Natural Resource Conservation Area maps.

B. The inventories and cited maps and resources are to be used as a guide for the City, project applicants, and/or property owners, and may be continuously updated as new fish and wildlife habitat conservation areas are identified or critical area reports are submitted for known fish and wildlife habitat conservation areas. The inventories, maps, and resources are a reference and do not provide a final critical area designation.

20.240.274 Fish and wildlife habitat – General development standards.

A. Development activities and uses shall be prohibited in fish and wildlife habitat conservation areas and associated buffers, except as provided for in this subchapter. Unless allowed under SMC 20.240.040, subsection C of this section, or SMC 20.240.276, development activities and uses that result in alteration of fish and wildlife habitat conservation areas shall be subject to the shoreline variance provisions of 20.220.040.

B. Any proposed alterations permitted, consistent with shoreline variance review, to fish and wildlife habitat conservation area shall require the preparation of a habitat conservation area mitigation plan (commonly referred to as a habitat management plan) to mitigate for the adverse impacts of the proposal, consistent with the recommendations specific to the habitat or species of the WDFW Priority Habitat Program. The habitat management plan shall be prepared by a

qualified professional and reviewed and approved by the City, consistent with the standards for mitigation plans in SMC 20.240.082 and 20.240.300.

C. Activities Allowed in Fish and Wildlife Habitat Conservation Areas. The activities listed below are allowed in fish and wildlife habitat conservation areas pursuant to SMC 20.240.040, Allowed activities, and subject to applicable permit approvals. These activities do not require the submission of a critical area report and are exempt from monitoring and financial guarantee requirements, except where such activities result in a loss of the functions and values of a fish and wildlife habitat conservation area. These activities include:

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing habitat conservation area.
2. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the fish and wildlife habitat conservation area by changing existing topography, water conditions, or water sources.
3. Permitted alteration to a legally constructed structure existing within a fish and wildlife habitat conservation area buffer that does not increase the footprint of the development or hardscape or increase the impact to a fish and wildlife habitat conservation area, consistent with SMC 20.220.150.
4. Clearing, grading, and the construction of fences and arbors are allowed within the required 10-foot stream buffers for a piped stream segment. if no other critical area or buffer is present.

D. Nonindigenous Species. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a fish and wildlife habitat conservation area unless authorized by a State or Federal permit or approval.

E. Mitigation and Contiguous Corridors. Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.

F. Approvals of Activities. The Director shall condition approvals of development activities allowed within or adjacent to a fish and wildlife habitat conservation area, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:

1. Establishment of buffers;
2. Preservation of important vegetation and/or habitat features such as snags and downed wood specific to the priority wildlife species in the fish and wildlife habitat conservation area;
3. Limitation of access to the habitat area, including fencing to deter unauthorized access;
4. Seasonal restriction of construction activities;
5. Establishment of a duration and timetable for periodic review of mitigation activities; and
6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

G. Mitigation and Equivalent or Greater Shoreline Ecological Functions. Mitigation of alterations to fish and wildlife habitat conservation areas shall achieve equivalent or greater shoreline ecological, biological, and hydrologic functions and shall include mitigation for adverse impacts upstream from, downstream from, or within the same shoreline reach as the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis. Mitigation shall be located on site except when demonstrated that a higher level of ecological functioning would result from an off-site location. Mitigation shall be detailed in a fish and wildlife habitat conservation area mitigation plan, consistent with the requirements of SMC 20.240.300.

H. Approvals and the Best Available Science. Any approval of alterations or impacts to a fish and wildlife habitat conservation area shall be supported by the best available science.

I. Buffers.

- 1. Establishment of Buffers.** The Director shall require the establishment of buffer areas for activities adjacent to fish and wildlife habitat conservation areas in order to protect fish and wildlife habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions,

and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby and shall be consistent with the applicable management recommendations issued by WDFW.

2. **Seasonal Restrictions.** When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.

3. **Habitat Buffer Averaging.** The Director may allow the recommended fish and wildlife habitat area buffer width to be reduced in accordance with a critical area report, the best available science, and the applicable management recommendations issued by WDFW, only if:

a. It will not reduce stream or habitat functions;

b. It will not adversely affect fish and wildlife habitat;

c. It will provide additional natural resource protection, such as buffer enhancement;

d. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer; and

e. The buffer width is not reduced by more than 25 percent in any location.

J. **Signs and Fencing of Fish and Wildlife Habitat Conservation Areas.**

1. **Temporary Markers.** The outer perimeter of the fish and wildlife habitat conservation area or buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary "clearing limits" fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the Director prior to the commencement of permitted activities during the preconstruction meeting required under SMC 20.50.330(E). This temporary marking and fencing shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.

2. **Permanent Signs.** As a condition of any permit or authorization issued pursuant to this chapter, the Director may require the applicant to install permanent signs along the

boundary of a fish and wildlife habitat conservation area or buffer, when recommended in a critical area report or otherwise required by the provisions of this chapter.

a. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or another material of equal durability and nonhazardous. Signs shall be posted at an interval of one per lot or every 50 feet, whichever is less, and shall be maintained by the property owner in perpetuity. The signs shall be worded consistent with the text specified in SMC 20.240.110 or with alternative language approved by the Director.

b. The provisions of subsection (J)(2)(a) of this section may be modified as necessary to assure protection of sensitive features or wildlife.

3. Fencing. Fencing installed as part of a proposed activity or as required in this subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes habitat impacts. Permanent fencing shall be required at the outer edge of the fish and wildlife habitat conservation area buffer under the following circumstances; provided, that the Director may waive this requirement:

a. As part of any development proposal for subdivisions, short plats, multifamily, mixed use, and commercial development where the Director determines that such fencing is necessary to protect the shoreline ecological functions of the fish and wildlife habitat conservation area; provided, that breaks in permanent fencing may be allowed for access to allowed uses (subsection C of this section and SMC 20.240.280(D));

b. As part of development proposals for public and private parks where the adjacent proposed use is active recreation and the Director determines that such fencing is necessary to protect the shoreline ecological functions of the fish and wildlife habitat conservation area;

c. When buffer averaging is part of a development proposal; or

d. At the Director's discretion, to protect the shoreline ecological functions of the fish and wildlife habitat conservation area, as demonstrated in a critical area report. If found to be necessary, the Director shall condition any permit or authorization issued pursuant to this chapter to require the applicant to install a permanent fence at the edge of the fish

and wildlife habitat conservation area or buffer, when fencing will prevent future impacts to the fish and wildlife habitat conservation area.

e. The applicant shall be required to install a permanent fence around the fish and wildlife habitat conservation area or buffer when domestic grazing animals, only as allowed under SMC 20.40.240, are present or may be introduced on site.

K. Subdivisions. The subdivision and short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the following:

1. Land that is located wholly within a fish and wildlife habitat conservation area or its buffer may not be subdivided;
2. Land that is located partially within a fish and wildlife habitat conservation area or its buffer may be divided; provided, that the developable portion of each new lot and its access is located outside of the fish and wildlife habitat conservation area or its buffer. The final lots shall each meet the minimum lot size requirements of SMC 20.50.020.
3. Access roads and utilities serving the proposed subdivision may be permitted within the fish and wildlife habitat conservation area and associated buffers only if the applicant's qualified professional(s) demonstrate, and the City determines, that no other feasible alternative exists, all unavoidable impacts are fully mitigated, and the use is consistent with this chapter.

20.240.276 Fish and wildlife habitat – Specific habitat development standards.

In addition to the provisions in SMC 20.240.274, the following development standards apply to the specific habitat types identified below:

A. Endangered, Threatened, and Sensitive Species.

1. No development shall be allowed within a fish and wildlife habitat conservation area or buffer with which State or Federally endangered, threatened, or sensitive species have a primary association, except that which is provided for by a management plan established by WDFW or applicable State or Federal agency.
2. Whenever activities are proposed adjacent to a fish and wildlife habitat conservation area with which State or Federally endangered, threatened, or sensitive species have a

primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the City. Approval for alteration of the fish and wildlife habitat conservation area or its buffer shall not occur prior to consultation with WDFW for animal species, DNR for plant species, and other appropriate Federal or State agencies.

B. Anadromous Fish.

1. All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:

a. Subsection A of this section applies to anadromous fish where those populations are identified as endangered, threatened or sensitive species;

b. Activities shall be timed to occur only during the allowable work window as designated by WDFW for the applicable species;

c. An alternative alignment or location for the activity is not feasible;

d. The activity is designed so that it will not degrade the shoreline ecological function of the fish habitat or other critical areas; and

e. Any impacts to the shoreline ecological function of the fish and wildlife habitat conservation area are mitigated in accordance with an approved critical area report.

2. Structures that prevent migration shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided, consistent with RCW 77.57.030, as amended from time to time, that allow the upstream migration of adult fish and prevent fry and juveniles migrating downstream from being trapped or harmed.

3. Fills, when authorized by the City and all applicable joint aquatic resource permit application approvals, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

C. **Wetland Habitats.** All proposed activities within or adjacent to fish and wildlife habitat conservation areas containing wetlands shall conform to the wetland development performance standards set forth in Chapter 20.240 SMC, Subchapter 4, Wetlands. If nonwetlands habitat and wetlands are present at the same location, the provisions of this subchapter or the Wetlands subchapter, whichever provides greater protection to the habitat, apply.

D. **Streams.** Activities, uses and alterations of streams shall be prohibited, subject to the shoreline variance provisions (SMC 20.220.040), unless otherwise allowed by the allowed activities provisions of this chapter. No alteration to a stream buffer shall be permitted unless consistent with the provisions of this chapter and the specific standards for development outlined below.

1. **Type S and Type F-Anadromous Streams.** Development activities and uses that result in alteration of Type S and Type F-anadromous streams and their associated buffers shall be prohibited subject to the shoreline variance provisions of SMC 20.220.040.

2. **Type F-Nonanadromous and Type Np Streams.** Development activities and uses that result in alteration of Type F-nonanadromous and Type Np streams are prohibited subject to the shoreline variance provisions of SMC 20.220.040.

3. **Type Ns Streams.** Development activities and uses that result in unavoidable impacts may be permitted in Type Ns streams and associated buffers in accordance with an approved critical area(s) report and compensatory mitigation plan, and only if the proposed activity is consistent with the purpose and intent of the SMA, this Master Program, and this chapter. Full compensation for the loss of acreage and functions of streams and buffers shall be provided in compliance with the mitigation performance standards and requirements of these regulations.

4. **Stream Crossing.** Crossing of streams may be permitted based on the findings in a critical area report, subject to the limitations in subsections (D)(1), (2), and (3) of this section, and consistent with the following:

a. **Bridges.** Bridges shall be used to cross Type S and Type F-anadromous streams. Culverted crossings and other obstructive means of crossing Type S and Type F-anadromous streams shall be prohibited; and

b. **Culverts.** Culverts are allowed for crossing of Type F-nonanadromous, Np, and Ns streams when fish passage will not be impaired and when the following design criteria and conditions are met:

i. Oversized culverts, that allow for fish passage and floodplain or wetland connectivity, will be installed;

ii. Culverts for Type F streams shall be designed for fish passage that will allow natural stream functions and processes to occur (i.e., sediment, wood, and debris transport) where appropriate;

iii. Gravel substrate will be placed in the bottom of the culvert to a minimum depth of one foot for Type F streams;

iv. A maintenance covenant shall be recorded on title with King County that requires the property owner to, at all times, keep any culvert free of debris and sediment to allow free passage of water and, if applicable, fish; and

v. The City may require that a culvert be removed from a stream as a condition of approval, unless it is demonstrated conclusively that the culvert is not detrimental to fish habitat or water quality, or removal would be detrimental to fish or wildlife habitat or water quality.

5. **Relocation.** Relocation of a Type S, F, or Np stream may be allowed, subject to the limitations in subsections (D)(1) and (2) of this section, and only when the proposed relocation is part of an approved mitigation or rehabilitation plan, will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream. Relocation of a Type Ns stream may be allowed, subject to the limitation in subsection (D)(3) of this section, and only when the proposed relocation will result in equal or better habitat and water quality and will not diminish the flow capacity of the stream.

6. **Restoring Piped Watercourses.** The City allows the voluntary opening of previously channelized/culverted streams and the rehabilitation and restoration of streams. Restoring piped watercourses may be approved, consistent with the following:

a. When piped watercourse sections are restored, a protective buffer shall be required of the stream section. The buffer distance shall be consistent with the buffer relief that

may be granted consistent with SMC 20.240.056, Voluntary critical area restoration projects. The stream and buffer area shall include habitat improvements and measures to prevent erosion, landslide, and water quality impacts. Opened channels shall be designed to support fish and wildlife habitat and uninhibited fish access, unless determined to be unfeasible as demonstrated in a restoration plan reviewed and approved by the City;

b. Removal of pipes conveying streams shall only occur when the City determines that the proposal will result in an improvement of water quality and ecological functions and will not significantly increase the threat of erosion, flooding, slope stability, or other hazards; and

c. Where the buffer of the restored stream would extend onto an adjacent property, the applicant shall obtain a written agreement from the affected neighboring property owner prior to the City approving the restoration of the piped watercourse.

E. Priority Species. Fish and wildlife habitat conservation areas or buffers with Priority Species shall be subject to the following:

1. Development activities and uses that result in unavoidable impacts may be permitted in priority species habitat areas and associated buffers in accordance with an approved critical area(s) report and habitat management plan, only if the proposed activity is consistent with the purpose and intent of the SMA, this Master Program, and this chapter. Full compensation for the loss of acreage and functions of habitat and buffer areas shall be provided in compliance with the mitigation performance standards and requirements of these regulations.

20.240.280 Fish and wildlife habitat – Required buffer areas.

A. Buffer widths for fish and wildlife habitat areas shall be based on consideration of the following factors: species-specific recommendations of WDFW; recommendations contained in a habitat management plan submitted by a qualified professional; and the nature and intensity of land uses and activities occurring on the land adjacent to the site.

B. Low-impact uses and activities which are consistent with the purpose and function of the habitat buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat area. Examples of uses and activities which may be permitted in

appropriate cases include trails that are pervious, viewing platforms, low-impact stormwater management facilities such as bioswales and other similar uses and activities; provided, that any impacts to the buffer resulting from such permitted facilities shall be fully mitigated.

C. Standard Required Stream Buffer Widths. Buffer widths shall reflect the sensitivity of the stream type, the risks associated with development and, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the stream area. Stream buffers shall be measured from the OHWM or the top of the bank, if the OHWM cannot be determined. Buffers shall be measured with rounded ends where streams enter or exit piped segments.

1. The following buffers are established for streams based upon the DNR water typing system and further classification based on anadromous or nonanadromous fish presence for the Type F streams:

Table 20.240.280(1)

<u>Stream Type</u>	<u>Standard Buffer Width (ft)</u>
<u>Type S</u>	<u>150</u>
<u>Type F-anadromous</u>	<u>115</u>
<u>Type F-nonanadromous</u>	<u>75</u>
<u>Type Np</u>	<u>65</u>
<u>Type Ns</u>	<u>45</u>
<u>Piped Stream Segments</u>	<u>10</u>

2. **Increased Stream Buffer Widths.** The recommended stream buffer widths shall be increased, as follows:

a. When the qualified professional determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area:

b. When the flood hazard area exceeds the recommended stream buffer width, the stream buffer area shall extend to the outer edge of the flood hazard area;

c. When a channel migration zone is present, the stream buffer width shall be measured from the outer edge of the channel migration zone;

d. When the habitat area is in an area of high blowdown potential, the stream buffer width shall be expanded an additional 50 feet on the windward side; or

e. When the habitat area is within an erosion or landslide hazard area, or buffer, the stream buffer width shall be the recommended distance, or the erosion or landslide hazard area or buffer, whichever is greater.

3. Stream Buffer Width Averaging with Enhancement. The Director may allow the recommended stream buffer width to be reduced in accordance with an approved critical area report and the best available science, on a case-by-case basis, by averaging buffer widths. Any allowance for averaging buffer widths shall only be granted based on the development and implementation of a buffer enhancement plan for areas of buffer degradation, consistent with the provisions in subsection (C)(4) of this section. Only those portions of the stream buffer existing within the project area or subject parcel shall be considered in the total buffer area for buffer averaging. Averaging of buffer widths may only be allowed where a qualified professional demonstrates that:

a. The width reduction and buffer enhancement plan provides evidence that the stream or habitat functions, including those of nonfish habitat and riparian wildlife, will be:

i. Increased or maintained through plan implementation for those streams where existing buffer vegetation is generally intact native vegetation; or

ii. Increased through plan implementation for those streams where existing buffer vegetation is inadequate to protect the functions and values of the stream;

b. The total area contained in the buffer area of each stream on the development proposal site is not decreased after averaging;

c. The recommended riparian habitat area width is not reduced by more than 25 percent in any one location; and

d. The width reduction will not be located within another critical area or associated buffer.

4. Stream Buffer Enhancement Measures. The measures determined most applicable and/or appropriate will be considered in buffer averaging requirements. These include but are not limited to:

a. Removal of fish barriers to restore accessibility to fish.

b. Enhancement of fish habitat using log structures incorporated as part of a fish habitat enhancement plan.

c. Enhancement of fish and wildlife habitat structures that are likely to be used by wildlife, including wood duck houses, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and heron nesting areas.

d. Additional enhancement measures may include:

i. Planting native vegetation within the buffer area, especially vegetation that would increase value for fish and wildlife, increase stream bank or slope stability, improve water quality, or provide aesthetic/recreational value; or

ii. Creation of a surface channel where a stream was previously underground, in a culvert or pipe. Surface channels which are “daylighted” shall be located within a buffer area and shall be designed with energy dissipating functions or channel roughness features such as meanders and rootwads to reduce future bank failures or nearby flooding;

iii. Removal or modification of existing stream culverts (such as at road crossings) to improve fish passage, stream habitat, and flow capabilities; or

iv. Upgrading of retention/detention facilities or other drainage facilities beyond required levels.

D. Stream Buffer Allowed Uses and Alteration. Activities and uses shall be prohibited in stream buffers, except as provided for in this chapter. Stream buffers shall be maintained as undisturbed or restored natural vegetation. No clearing or grading activities are allowed within required stream buffers except as allowed under SMC 20.240.040, 20.240.274, and WAC 173-

27-040, as amended from time to time; or consistent with an approved buffer enhancement plan consistent with the provisions of this subchapter. No structures or improvements shall be permitted within the stream buffer area, including buildings, decks, docks, except as otherwise permitted or required under the SMA, this Master Program, and this chapter, or under one of the following circumstances:

1. **Approved Mitigation.** When the improvements are part of an approved rehabilitation or mitigation plan; or

2. **Trails.** Construction of trails over and in the buffer of piped stream segments, and the construction of trails near other stream segments, consistent with the following criteria:

a. Trails should be constructed of pervious surface, with preference for natural materials. Raised boardwalks utilizing nontreated pilings may be acceptable;

b. Trails shall be designed in a manner that minimizes impact on the stream system;

c. Trails shall have a maximum trail corridor width of five feet; and

d. Trails should be located within the outer 25 percent of the buffer, i.e., that portion of the buffer that is farther away from the stream and located to avoid removal of significant trees; or

3. **Footbridges.** Construction of footbridges that minimize the impact to the stream system; or

4. **Informational Signs.** Construction and placement of informational signs or educational demonstration facilities limited to no more than one square yard surface area and four feet high, provided there is no permanent infringement on stream flow; or

5. **Stormwater Management Facilities.** Establishment of low-impact stormwater management facilities, such as stormwater dispersion outfalls and bioswales, may be allowed within stream buffers consistent with the adopted stormwater manual; provided, that:

a. No other location is feasible;

b. Pipes and conveyance facilities only in the outer 25 percent of the standard buffer area as set forth in Table 20.240.280(1);

c. Stormwater dispersion outfalls, bioswales, bioretention facilities, and other low-impact facilities consistent with the adopted stormwater manual may be allowed anywhere within stream buffers when determined by a qualified professional that the location of the facility will enhance the buffer area and protect the stream; and

d. Such facilities are designed consistent with the requirements of SMC 20.70.330.

6. Development Proposals within Physically Separated and Functionally Isolated Stream Buffers. Consistent with the definition of “buffers” (SMC 20.20.012), areas that are functionally isolated and physically separated from stream due to existing, legally established roadways and railroads or other legally established structures or paved areas eight feet or more in width that occur between the area in question and the stream shall be considered physically isolated and functionally separated stream buffers. Once determined by the Director, based on a submitted critical area report to be a physically separated and functionally isolated stream buffer, development proposals shall be allowed in these areas.

20.240.290 Fish and wildlife habitat – Critical area report requirements.

A. Report Required. If the Director determines that the site of a proposed development includes, is likely to include, or is adjacent to a fish and wildlife habitat conservation area, a critical area report shall be required. Critical area report requirements for fish and wildlife habitat conservation areas are generally met through submission to the Director of one or more fish and wildlife habitat critical area reports. In addition to the general critical area report requirements of SMC 20.240.080, critical area reports for fish and wildlife habitat conservation areas shall meet the requirements of this section. Critical area reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.

B. Preparation by a Qualified Professional. Critical areas reports for a habitat conservation area shall be prepared and signed by a qualified professional who is a biologist, ecologist, or other scientist with the minimum required experience, per SMC 20.20.042, related to the specific type(s) of fish and wildlife habitats identified.

C. Third Party Review Required. Critical areas studies and reports on fish and wildlife habitat conservation areas shall be, at the applicant’s sole expense, subject to third party

review, consistent with SMC 20.240.080(C), and in any of the additional following circumstances:

1. Mitigation is required for impacts to Type S, Type F, or Type Np streams and/or buffers;
or
2. Mitigation is required for impacts to Type Ns streams.

D. Minimum Report Contents for Fish and Wildlife Habitat Conservation Areas. The critical area written report(s) and accompanying plan sheet(s) shall contain the following information at a minimum:

1. The minimum report contents required per SMC 20.240.080(E);
2. Documentation of any fieldwork performed on the site, including field data sheets for delineations, water typing and other habitat conservation area classification, baseline hydrologic data, site photos, etc.;
3. A description of the methodologies used to conduct the delineations, classifications, or impact analyses, including reference;
4. **Site Plans.** A copy of the site plan sheet(s) for the project shall be included with the written report and shall include, at a minimum:
 - a. Maps (to scale) depicting delineated and surveyed fish and wildlife habitat conservation areas and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; clearing and grading limits; areas of proposed impacts to fish and wildlife habitat conservation areas and/or buffers (include square footage estimates); and
 - b. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the fish and wildlife habitat conservation areas associated with anticipated hydroperiod alterations from the project;
5. **Habitat Assessment.** A habitat assessment is an investigation of the project area to evaluate the potential presence or absence of designated critical fish or wildlife species or

habitat. A critical area report for a fish and wildlife habitat conservation area shall contain an assessment of habitats including the following site- and proposal-related information at a minimum:

a. Detailed description of vegetation on and adjacent to the project area and its associated buffer;

b. Identification of any species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;

c. A discussion of any Federal, State, or local special management recommendations, including WDFW habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;

d. A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;

e. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed land use activity and to be conducted in accordance with SMC 20.240.053;

f. A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs; and

6. Additional Technical Information Requirements for Streams. Critical area reports for streams shall be consistent with the specific development standards for streams in SMC 20.240.276 and 20.240.280 and may be met through submission of one or more specific report types. If stream buffer enhancement is proposed to average stream buffer width, a stream buffer enhancement plan shall be submitted in addition to other critical area report requirements of this section. If no project impacts are anticipated and standard stream buffer widths are retained, a stream delineation report, general critical areas report or other reports, alone or in combination, may be submitted as consistent with the specific requirements of this section. In addition to the basic critical area report requirements for fish

and wildlife habitat conservation areas provided in subsections A through C of this section, technical information on streams shall include the following information at a minimum:

a. A written assessment and accompanying maps of the stream and associated hydrologic features on and off site within 200 feet of the project area, including the following information at a minimum:

- i. Stream survey showing the field delineated OHWM(s);
- ii. Standard stream buffer boundary;
- iii. Boundary for proposed stream buffers averaging, if applicable;
- iv. Vegetative, faunal, and hydrologic characteristics;
- v. Soil and substrate conditions; and
- vi. Topographic elevations, at two-foot contours;

b. A detailed description and functional assessment of the stream buffer under existing conditions pertaining to the protection of stream functions, fish habitat and, in particular, potential anadromous fisheries;

c. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and stream functions;

d. Proposed buffer enhancement, if needed, including a written assessment and accompanying maps and planting plans for buffer areas to be enhanced, including the following information at a minimum:

- i. A description of existing buffer conditions;
- ii. A description of proposed buffer conditions and how proposed conditions will increase buffer functions in terms of stream and fish habitat protection;
- iii. Performance standards for measuring enhancement success through a monitoring period of at least five years; and

- iv. Provisions for monitoring and submission of monitoring reports documenting buffer conditions, as compared to performance standards, for enhancement success;
- e. A discussion of ongoing management practices that will protect the shoreline ecological function of the stream through maintenance of vegetation density within the stream buffer.

E. Additional Information. When appropriate due to the type of habitat or species present or the project area conditions, the Director may also require the critical area report to include:

1. Where impacts are proposed, mitigation plans consistent with the requirements of SMC 20.240.082 and the fish and wildlife habitat mitigation performance standards and requirements of SMC 20.240.300;
2. Third party review to include any recommendations as appropriate by a qualified professional, under contract with or employed by the City, may be required at the applicant's expense of the critical area report analysis and the effectiveness of any proposed mitigating measures or programs;
3. A request for consultation with WDFW, the Department of Ecology, local Native American Indian tribes or other appropriate agency;
4. Copies of the joint aquatic resource permit application (JARPA) and related approvals, such as a hydraulic project approval (HPA) from the DFW, when applicable to the project; and
5. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

20.240.300 Fish and wildlife habitat – Mitigation performance standards and requirements.

A. Requirements for Mitigation. Where impacts cannot be avoided, and the applicant has exhausted all feasible design alternatives, the applicant or property owner shall seek to implement other appropriate mitigation actions in compliance with the intent, standards and criteria of this section. Mitigation provisions shall be applied through the shoreline variance provisions in SMC 20.220.040, unless mitigated alterations are specifically allowed by the provisions of this subchapter. In an individual case, these actions may include consideration of

alternative site plans and layouts, reductions in the density or scope of the proposal, and/or implementation of the performance standards listed in this section.

B. Additional Requirements for Stream Mitigation. Significant adverse impacts to the shoreline ecological function of the stream area shall be mitigated. Mitigation actions shall be implemented in the preferred sequence: avoidance, minimization, restoration and replacement. Proposals which include less preferred and/or compensatory mitigation shall demonstrate that:

1. All feasible and reasonable measures will be taken to reduce impacts and losses to the stream, or to avoid impacts where avoidance is required by these regulations;
2. The restored, created or enhanced stream area or buffer will be available and persistent as the stream or buffer area it replaces; and
3. No overall net loss will occur in the shoreline ecological functions of the stream.

C. Compensating for Lost or Impacted Functions. Mitigation of alterations to fish and wildlife habitat shall achieve equivalent or greater shoreline ecological, biological, and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site on a per function basis. Mitigation shall be located on site except when demonstrated that a higher level of ecological functioning would result from an off-site location. A mitigation plan may include the following:

1. Native vegetation planting plan;
2. Retention, enhancement or restoration plan of specific habitat features;
3. Plans for control of nonnative invasive plant or wildlife species; and
4. Stipulations for use of innovative, sustainable building practices.

D. Preference of Mitigation Actions. Methods to achieve compensation for the shoreline ecological function of fish and wildlife habitat shall be approached in the following order of preference:

1. **Protection.** Mitigation measures that increase the protection of the identified fish and wildlife habitat conservation areas may include but are not limited to:

- a. Increased or enhanced buffers;
- b. Setbacks for permanent and temporary structures;
- c. Reduced project scope;
- d. Limitations on construction hours;
- e. Limitations on hours of operation; and/or
- f. Relocation of access;

2. **Restoration.** Restoration of degraded habitat.

3. **Creation.** Creation (establishment) of wildlife habitat on disturbed upland sites such as those with vegetative cover consisting primarily of nonnative species. This should be attempted only when the site conditions are conducive to the habitat type that is anticipated in the design.

4. **Enhancement.** Enhancement of significantly degraded habitat in combination with restoration or creation. Enhancement alone will result in a loss of habitat acreage and is less effective at replacing the functions lost. Enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

5. **Preservation.** Preservation of high-quality, at-risk fish and wildlife habitat as compensation is generally acceptable when done in combination with restoration, creation, or enhancement; provided, that a minimum of 1:1 acreage replacement is provided by reestablishment or creation. Preservation of high-quality, at-risk fish and wildlife habitat may be considered as the sole means of compensation for habitat impacts when the following criteria are met:

- a. Habitat impacts will not have a significant adverse impact on habitat for listed fish, or other ESA-listed species;
- b. There is no net loss of habitat functions and values within the watershed or basin;
- c. The impact area is small (generally less than one-half acre) and/or impacts are occurring to a low-functioning system; and

d. All preservation sites shall include buffer areas adequate to protect the habitat and its functions and values from encroachment and degradation.

E. Location and Timing of Stream Mitigation.

1. Mitigation shall be provided on site, unless on-site mitigation is not scientifically feasible due to the physical features of the property. The burden of proof shall be on the applicant to demonstrate that mitigation cannot be provided on site.

2. When mitigation cannot be provided on site, mitigation shall be provided in the immediate vicinity of the permitted activity on property owned or controlled by the applicant, such as an easement, provided such mitigation is beneficial to the fish and wildlife habitat conservation area and associated resources. It is the responsibility of the applicant to obtain title to off-site mitigation areas. Mitigation may be considered on City-owned property, or on similar publicly owned property for which title is not available, through a City mitigation program if programmatic mitigation areas have been identified by the City.

3. In-kind mitigation shall be provided, except when the applicant demonstrates and the City concurs that greater functional and habitat value can be achieved through out-of-kind mitigation.

4. Only when it is determined by the City that subsections (B)(1), (2), and (3) of this section are inappropriate and impractical shall off-site, in-kind mitigation or off-site, out-of-kind mitigation be considered.

5. When stream mitigation is permitted by this chapter on site or off site, the mitigation project shall occur near an adequate water supply (stream, ground water) with a hydrologic connection to the mitigation area to ensure successful development or restoration.

6. Any agreed-upon mitigation proposal shall be completed prior to project construction, unless a phased schedule that assures completion concurrent with project construction has been approved by the City.

7. Restored or created streams, where permitted by this chapter, shall be an equivalent or higher stream value or function than the altered stream.

F. Performance Standards. The following mitigation measures shall be reflected in fish and wildlife habitat conservation area mitigation planning:

1. The maintenance and protection of habitat functions and values shall be considered a priority in site planning and design;
2. Buildings and structures shall be located in a manner that preserves and minimizes adverse impacts to important habitat areas. This may include clustering buildings and locating fences outside of habitat areas;
3. Retained habitat shall be integrated into open space and landscaping;
4. Where possible, habitat and vegetated open space shall be consolidated in contiguous blocks;
5. Habitat shall be located contiguous to other habitat areas, open space, or landscaped areas, both on and off site, to contribute to a continuous system or corridor that provides connections to adjacent habitat areas;
6. When planting is required, the following standards shall apply:
 - a. Native species, indigenous to the region, shall be used in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers;
 - b. Plant selection shall be consistent with the existing or projected site conditions, including slope aspect, moisture, and shading;
 - c. Plants should be commercially available or available from local sources;
 - d. Plant species high in food and cover value for fish and wildlife shall be used;
 - e. Mostly perennial species should be planted;
 - f. Committing significant areas of the site to species that have questionable potential for successful establishment shall be avoided;
 - g. Plant selection, densities, and placement of plants shall be determined by a qualified professional and shown on the design plans;

h. Stockpiling soil and construction materials should be confined to upland areas and contract specifications should limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the City;

i. Planting instructions shall be submitted which describe placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock;

j. Controlled release fertilizer shall be applied (if required) at the time of planting and afterward only as plant conditions warrant as determined during the monitoring process;

k. An irrigation system shall be installed, if necessary, for the initial establishment period;

l. The heterogeneity and structural diversity of vegetation shall be emphasized in landscaping; and

m. Significant trees shall be preserved;

7. All construction specifications and methods shall be approved by a qualified professional and the City; and

8. Construction management shall be provided by a qualified professional. Ongoing work on site shall be inspected by the City.

G. Mitigation Plan. Mitigation plans shall be submitted as part of the required critical area report consistent with the requirements of SMC 20.240.080, 20.240.082, and 20.240.290 and this section. When revegetation is required as part of the mitigation, then the mitigation plan shall meet the standards of SMC 20.240.350(H), excluding those standards that are wetland specific.

H. Monitoring Program and Contingency Plan. A monitoring program shall be implemented by the applicant to determine the success of the mitigation project and any necessary corrective actions. This program shall determine if the original goals and objectives are being met. The monitoring program will be established consistent with the guidelines contained in SMC 20.240.082(D).

Subchapter 4.

Wetlands

20.240.310 Wetlands – Purpose.

A. Wetlands help to maintain water quality; store and convey stormwater and floodwater; recharge ground water; provide important fish and wildlife habitat; and serve as areas for recreation, education, scientific study and aesthetic appreciation.

B. The City’s overall goal shall be to achieve no net loss of wetlands. This goal shall be implemented through retention of the function, value and acreage of wetlands within the City. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for wildlife; protect wetland resources from harmful intrusion; and generally preserve the ecological integrity of the wetland area.

C. The primary purpose of the wetland regulations is to avoid detrimental wetland impacts and achieve a goal of no net loss of wetland function, value and acreage; and where possible enhance and restore wetlands.

20.240.320 Wetlands – Designation and rating.

A. **Designation.** All areas meeting the definition of a wetland and identification criteria as wetlands pursuant to SMC 20.240.322, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter.

B. **Rating.** All wetlands shall be rated by a qualified professional according to the current Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington 2014 (Department of Ecology Publication No. 014-06-029, or as revised). Wetland rating categories shall be applied as the wetland exists on the date of adoption of the rating system by the City, as the wetland naturally changes thereafter, or as the wetland changes in accordance with permitted activities.

1. **Category I.** Category I wetlands are those that represent unique or rare wetland types, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime, or provide a high level of functions. The following types of wetlands are Category I:

a. Relatively undisturbed estuarine wetlands larger than one acre;

b. Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR;

c. Bogs;

d. Mature and old-growth forested wetlands larger than one acre;

e. Wetlands in coastal lagoons; and

f. Wetlands that perform many functions well (scoring 23 points or more based on functions).

2. Category II. Category II wetlands are those that are difficult, though not impossible, to replace and provide high levels of some functions. The following types of wetlands are Category II:

a. Estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre;

b. Interdunal wetlands larger than one acre or those found in a mosaic of wetlands; and

c. Wetlands with a moderately high level of functions (scoring between 20 and 22 points).

3. Category III. Category III wetlands are those with a moderate level of functions, generally have been disturbed in some ways, can often be adequately replaced with a well-planned mitigation project, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands. The following types of wetlands are Category III:

a. Wetlands with a moderate level of functions (scoring between 16 and 19 points); or

b. Interdunal wetlands between 0.1 and one acre.

4. Category IV. Category IV wetlands are those with the lowest levels of functions (scoring below 16 points) and are often heavily disturbed. These are wetlands that should be able to replace, or in some cases to improve. However, experience has shown that replacement

cannot be guaranteed in any specific case. These wetlands may provide some important functions, and also need to be protected.

C. Illegal Modifications. Wetland rating categories shall not change due to illegal modifications or alterations. A wetland's category shall be based on the pre-modification/alteration analysis of the wetland.

D. At the time of adoption of the critical area amendments to this Master Program, Ordinance 856, there were no identified Category I wetlands identified within the City. If this category of wetland is subsequently identified, any applicable standards may temporarily be used on an interim basis by the Director based on Washington State guidance on protection of the identified type of resource until such time as permanent shoreline regulations can be established.

20.240.322 Wetlands – Mapping and delineation.

A. Mapping. The approximate location and extent of wetlands are shown in the wetland data layer maintained in the City geographic information system (GIS) and shown in Figure 20.230.080. In addition, the following maps and inventories are hereby adopted by reference as amended:

1. City of Shoreline, Basin Characterization Reports and Stream and Wetland Inventory and Assessment, Tetra Tech (May 2004);
2. City stormwater basin plans as completed and updated;
3. Soils maps produced by the USDA National Resources Conservation Service; and
4. The National Wetlands Inventory, produced by the U.S. Fish and Wildlife Service.

B. Reference Only. The inventories and cited resources are to be used as a guide for the City, project applicants, and/or property owners, and may be continuously updated as new wetlands are identified or critical area reports are submitted for known wetlands. These inventories and cited resources are a reference and do not provide a final critical area designation.

C. Identification and Delineation. Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved Federal wetland delineation manual and applicable regional supplements per WAC 173-22-035, as

amended from time to time. The exact location of a wetland's boundary shall be determined through the performance of a field investigation by a qualified professional. Wetland delineations are valid for five years; after such date the Director shall determine whether a revision or additional assessment is necessary.

D. **Pre-assessment.** To facilitate long-range planning using a landscape approach, the Director may identify and pre-assess wetlands using the rating system and establish appropriate wetland buffer widths for such wetlands. The Director will prepare maps of wetlands that have been pre-assessed in this manner.

20.240.324 Wetlands – Development standards.

A. Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided for in this chapter.

B. **Activities Allowed in Wetlands.** The activities listed below are allowed in wetlands pursuant to SMC 20.240.040, Allowed activities, and subject to applicable permit approvals. These activities do not require submission of a critical area report, except where such activities result in a net loss of the shoreline ecological function provided by a wetland or wetland buffer. These activities include:

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing wetland.
2. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.
3. Drilling for utilities/utility corridors under a wetland, with entrance/exit portals located completely outside of the wetland buffer; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.
4. Enhancement of a wetland through the select removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand labor and handheld

equipment unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. Not more than 500 square feet of area may be cleared, as calculated cumulatively over one year, on private property without a permit. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds or the King County Noxious Weed List shall be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.

5. Permitted alteration to a legally constructed structure existing within a wetland or wetland buffer that does not increase the footprint of the development or hardscape or increase the impact to a wetland or wetland buffer, consistent with SMC 20.220.150.

C. Category I Wetlands. Development activities and uses that result in alteration of Category I wetlands and their associated buffers shall be prohibited subject to the shoreline variance provisions of SMC 20.220.040.

D. Category II and III Wetlands. Development activities and uses that result in alteration of Category II and III wetlands shall be prohibited subject to the shoreline variance provisions of SMC 20.220.040 and the following criteria:

1. The basic project proposed cannot reasonably be accomplished on another site or sites in the general region while still successfully avoiding or resulting in less adverse impact on a wetland;

2. All on-site alternative designs that would avoid or result in less adverse impact on a wetland or its buffer, such as a reduction to the size, scope, configuration, or density of the project are not feasible; and

3. Full compensation for the loss of acreage and functions and values of wetland and buffers due to unavoidable impacts shall be provided in compliance with the mitigation performance standards and requirements of this chapter.

E. Category IV Wetlands, Except Small Hydrologically Isolated Wetlands. Development activities and uses that result in unavoidable impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved critical area(s) report and compensatory

mitigation plan, and only if the proposed activity is consistent with the purpose and intent of the SMA, this Master Program, and this chapter. Full compensation for the loss of acreage and functions and values of wetland and buffers shall be provided in compliance with the mitigation performance standards and requirements of these regulations.

F. Small, Hydrologically Isolated Category IV Wetlands. The Director may allow small, hydrologically isolated Category IV wetlands to be exempt from the avoidance sequencing provisions of SMC 20.240.053 and subsection D of this section and allow alteration of such wetlands; provided, that a submitted critical area report and mitigation plan provides evidence that all of the following conditions are met:

1. The wetland is less than 1,000 square feet in area;
2. The wetland is a low quality Category IV wetland with a habitat score of less than three points in the adopted rating system;
3. The wetland does not contain habitat identified as essential for local populations of priority species identified by WDFW or species of local importance which are regulated as fish and wildlife habitat conservation areas in Chapter 20.240, Subchapter 3;
4. The wetland is not associated with riparian areas or buffers;
5. The wetland is not part of a wetland mosaic; and
6. A mitigation plan to replace lost wetland functions and values is developed, approved, and implemented consistent with SMC 20.240.350.

G. Subdivisions. The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:

1. Land that is located wholly within a wetland and/or its buffer may not be subdivided; and
2. Land that is located partially within a wetland and/or its buffer may be subdivided; provided, that an accessible and contiguous portion of each new lot is:
 - a. Located outside of the wetland and its buffer; and
 - b. Meets the minimum lot size requirements of SMC 20.50.020.

20.240.330 Wetlands – Required buffer areas.

A. Buffer Requirements. The standard buffer widths in Table 20.240.330(A)(1) have been established in accordance with the best available science. The buffer widths shall be determined based on the category of wetland and the habitat score as assigned by a qualified wetland professional using the Washington State Wetland Rating System for Western Washington.

1. The use of the standard buffer widths requires the implementation of the mitigation measures in Table 20.240.330(A)(2), where applicable to the development type, to minimize the impacts of the adjacent land uses.
2. If an applicant chooses not to apply the appropriate mitigation measures in Table 20.240.330(A)(2), then a 33 percent increase in the width of all buffers is required. For example, a 75-foot buffer with the mitigation measures would be a 100-foot buffer without them.
3. The standard buffer widths assume that the buffer is a relatively intact native plant community in the buffer zone adequate to protect the wetland functions and values at the time of the proposed activity. If the existing buffer is bare ground, sparsely vegetated, or vegetated with nonnative or invasive species that do not perform needed functions, then the applicant shall either develop and implement a wetland buffer restoration or enhancement plan to maintain the standard width to create the appropriate plant community or the buffer shall be widened to ensure that adequate functions of the buffer are provided.

Table 20.240.330(A)(1) Wetland Buffer Requirements

<u>Wetland Category</u>	<u>Buffer Width According to Habitat Score</u>			
	<u>Habitat Score</u>	<u>Habitat Score</u>	<u>Habitat Score</u>	<u>Habitat Score</u>
	<u>of 3 – 4</u>	<u>of 5</u>	<u>of 6 – 7</u>	<u>of 8 – 9</u>
<u>Category I: Based on total score or Forested</u>	<u>75 ft</u>	<u>105 ft</u>	<u>165 ft</u>	<u>225 ft</u>
<u>Category I: Estuarine</u>	<u>150 ft (no change based on habitat scores)</u>			
<u>Category II: Based on total score</u>	<u>75 ft</u>	<u>105 ft</u>	<u>165 ft</u>	<u>225 ft</u>

Table 20.240.330(A)(1) Wetland Buffer Requirements

<u>Wetland Category</u>	<u>Buffer Width According to Habitat Score</u>			
	<u>Habitat Score</u>	<u>Habitat Score</u>	<u>Habitat Score</u>	<u>Habitat Score</u>
	<u>of 3 – 4</u>	<u>of 5</u>	<u>of 6 – 7</u>	<u>of 8 – 9</u>
<u>Category III (all)</u>	<u>60 ft</u>	<u>105 ft</u>	<u>165 ft</u>	<u>225 ft</u>
<u>Category IV (all)</u>	<u>40 ft (no change based on habitat scores)</u>			

Table 20.240.330(A)(2) Required Measures to Minimize Impacts to Wetlands
(Measures are required, where applicable to a specific proposal)

<u>Disturbance</u>	<u>Activities and Uses That Cause Disturbances</u>	<u>Required Measures to Minimize Impacts</u>
<u>Lights</u>	<ul style="list-style-type: none"> • <u>Parking lots</u> • <u>Warehouses</u> • <u>Manufacturing</u> • <u>Residential</u> 	<ul style="list-style-type: none"> • <u>Direct lights away from wetland.</u>
<u>Noise</u>	<ul style="list-style-type: none"> • <u>Manufacturing</u> • <u>Residential</u> 	<ul style="list-style-type: none"> • <u>Locate activity that generates noise away from wetland.</u> • <u>If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source.</u> • <u>For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10 ft heavily vegetated buffer strip immediately adjacent to the outer wetland buffer.</u>
<u>Toxic runoff*</u>	<ul style="list-style-type: none"> • <u>Parking lots</u> • <u>Roads</u> • <u>Manufacturing</u> • <u>Residential areas</u> • <u>Application of</u> 	<ul style="list-style-type: none"> • <u>Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered.</u> • <u>Establish covenants limiting use of pesticides and fertilizers within 150 ft of wetland.</u> • <u>Apply integrated pest management.</u>

Table 20.240.330(A)(2) Required Measures to Minimize Impacts to Wetlands
(Measures are required, where applicable to a specific proposal)

<u>Disturbance</u>	<u>Activities and Uses That Cause Disturbances</u>	<u>Required Measures to Minimize Impacts</u>
	<u>agricultural pesticides</u> <ul style="list-style-type: none"> • <u>Landscaping</u> 	
<u>Stormwater runoff</u>	<ul style="list-style-type: none"> • <u>Parking lots</u> • <u>Roads</u> • <u>Manufacturing</u> • <u>Residential areas</u> • <u>Commercial</u> • <u>Landscaping</u> 	<ul style="list-style-type: none"> • <u>Retrofit stormwater detention and treatment for roads and existing adjacent development.</u> • <u>Prevent channelized flow from lawns that directly enters the buffer.</u> • <u>Use low intensity development techniques (per PSAT publication on LID techniques).</u>
<u>Change in water regime</u>	<ul style="list-style-type: none"> • <u>Impermeable surfaces</u> • <u>Lawns</u> • <u>Tilling</u> 	<ul style="list-style-type: none"> • <u>Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.</u>
<u>Pets and human disturbance</u>	<ul style="list-style-type: none"> • <u>Residential areas</u> 	<ul style="list-style-type: none"> • <u>Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion.</u> • <u>Place wetland and its buffer in a separate tract or protect with a conservation easement.</u>
<u>Dust</u>	<ul style="list-style-type: none"> • <u>Tilled fields</u> 	<ul style="list-style-type: none"> • <u>Use best management practices to control dust.</u>
<u>Disruption of corridors or connections</u>	-	<ul style="list-style-type: none"> • <u>Maintain connections to off-site areas that are undisturbed.</u> • <u>Restore corridors.</u>
<p>* <u>These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site. Additional mitigation measures may be required based on recommendation of a qualified professional, third party review, or State agency recommendations.</u></p>		

4. Increased Wetland Buffer Area Width. Buffer widths shall be increased, on a case-by-case basis as determined by the Director, when a larger buffer is necessary to protect the shoreline ecological functions provided by the wetland's functions and values. This determination shall be supported by a critical area report, prepared by a qualified professional at the applicant's expense, showing that it is reasonably related to protection of the functions and values of the wetland and the shoreline. The critical area report shall include, but not be limited to, the following criteria:

a. The wetland is used by a plant or animal species listed by the Federal government or the State as endangered, threatened, candidate, sensitive, monitored, or documented priority species or habitats, or the wetland is essential or outstanding habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or

b. The adjacent land has slopes greater than 15 percent and is susceptible to severe erosion, and erosion-control measures will not effectively prevent adverse wetland impacts; or

c. The adjacent land has minimal vegetative cover. In lieu of increasing the buffer width where existing buffer vegetation is inadequate to protect the wetland functions and values, development and implementation of a wetland buffer restoration/enhancement plan in accordance with SMC 20.240.350 may be substituted.

5. Buffer averaging to improve wetland functions and values may be permitted when all of the following conditions are met:

a. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or is a "dual-rated" wetland with a Category I area adjacent to a lower rated area;

b. The buffer is increased adjacent to the higher functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion as demonstrated by a critical areas report from a qualified wetland professional;

c. The total area of the buffer after averaging is equal to the area required without averaging; and

d. The buffer width is not reduced by more than 25 percent in any location.

6. Buffer averaging, through a shoreline variance consistent with 20.220.040, may be permitted when all of the following are met:

a. There are no feasible alternatives to the site design that could be accomplished without buffer averaging;

b. The averaged buffer will not result in degradation of the wetland's functions and values as demonstrated by a critical areas report from a qualified wetland professional;

c. The total buffer area after averaging is equal to the area required without averaging; and

d. The buffer at its narrowest point is never less than either three-fourths of the required width or 75 feet for Category I and II, 50 feet for Category III, and 25 feet for Category IV, whichever is greater.

B. Measurement of Wetland Buffers. All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland.

C. Buffers on Mitigation Sites. All mitigation sites shall have buffers consistent with the buffer requirements of this chapter. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.

D. Buffer Maintenance. Except as otherwise specified or allowed in accordance with this chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, removal of invasive nonnative weeds is required for the duration of the required monitoring period.

E. Impacts to Buffers. Requirements for the compensation for impacts to buffers are outlined in SMC 20.240.350.

F. Overlapping Critical Area Buffers. If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.

G. Allowed Wetland Buffer Uses. The following uses may be allowed within a wetland buffer in accordance with the review procedures of this chapter; provided such uses are not prohibited by any other applicable law and such uses are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:

1. Conservation and Restoration Activities. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.

2. Passive Recreation. Passive recreation facilities designed and in accordance with an approved critical area report, including:

a. Walkways and trails; provided, that those pathways are limited to minor crossings having no adverse impact on water quality. Pathways should be generally parallel to the perimeter of the wetland, located only in the outer 25 percent of the wetland buffer area, and located to avoid removal of significant trees. Pathways should be limited to pervious surfaces no more than five feet in width for pedestrian use only. Raised boardwalks utilizing nontreated pilings may be acceptable;

b. Wildlife viewing structures.

3. Educational and scientific research activities.

4. Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way, provided, that the maintenance or repair does not increase the footprint or use of the facility or right-of-way.

5. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops, and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.

6. Drilling for utilities/utility corridors under a buffer, with entrance/exit portals located completely outside of the wetland buffer boundary; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down

through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.

7. Enhancement of a wetland through the select removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand labor and handheld equipment unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. Not more than 1,500 square feet of area may be cleared, as calculated cumulatively over one year, on private property without a permit. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds or the King County Noxious Weed List shall be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.

8. **Stormwater Management Facilities.** Stormwater management facilities are limited to stormwater dispersion outfalls, bioswales, and other low-impact facilities consistent with the adopted stormwater manual. Stormwater management facilities are not allowed in buffers of Category I or II wetlands. Facilities may be allowed within the outer 25 percent of the buffer of Category III or IV wetlands only; provided, that:

a. No other location is feasible; and

b. The location of such facilities will not degrade the functions or values of the wetland.

9. **Nonconforming Uses or Structures.** Repair and maintenance of nonconforming uses or structures, where legally established within the buffer, provided such uses or structures do not increase the degree of nonconformity, consistent with SMC 20.220.150.

10. **Development Proposals within Physically Separated and Functionally Isolated Wetland Buffers.** Consistent with the definition of “buffers” (SMC 20.20.012), areas that are functionally isolated and physically separated from wetland due to existing, legally established roadways, paved trails eight feet or more in width, or other legally established structures or paved areas eight feet or more in width that occur between the area in question and the wetland shall be considered physically isolated and functionally separated

wetland buffers. Once determined by the Director, based on a submitted critical area report to be a physically separated and functionally isolated wetland buffer, development proposals shall be allowed in these areas.

H. Signs and Fencing of Wetlands and Buffers.

1. Temporary Markers. The outer perimeter of the wetland buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary "clearing limits" fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the Director prior to the commencement of permitted activities during the preconstruction meeting required under SMC 20.50.330(E). This temporary marking and fencing shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.

2. Permanent Signs. As a condition of any permit or authorization issued pursuant to this chapter, the Director may require the applicant to install permanent signs along the boundary of a wetland or buffer, when recommended in a critical area report or otherwise required by the provisions of this chapter.

a. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or another nontreated material of equal durability. Signs shall be posted at an interval of one per lot or every 50 feet, whichever is less, and shall be maintained by the property owner in perpetuity. The signs shall be worded consistent with the text specified in SMC 20.240.110 or with alternative language approved by the Director.

b. The provisions of subsection (H)(2)(a) of this section may be modified as necessary to assure protection of sensitive features.

3. Fencing. Fencing installed as part of a proposed activity or as required in this subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat. Permanent fencing shall be required at the outer edge of the critical area buffer under the following circumstances; provided, that the Director may waive this requirement:

a. As part of any development proposal for subdivisions, short plats, multifamily, mixed use, and commercial development where the Director determines that such fencing is

necessary to protect the functions of the critical area; provided, that breaks in permanent fencing may be allowed for access to permitted buffer uses (subsection G of this section);

b. As part of development proposals for parks where the adjacent proposed use is active recreation and the Director determines that such fencing is necessary to protect the functions of the critical area;

c. When buffer averaging is part of a development proposal; or

d. At the Director's discretion to protect the values and functions of a critical area as demonstrated in a critical area report. If found to be necessary, the Director shall condition any permit or authorization issued pursuant to this chapter to require the applicant to install a permanent fence at the edge of the habitat conservation area or buffer, when fencing will prevent future impacts to the habitat conservation area;

e. The applicant shall be required to install a permanent fence around the wetland buffer when domestic grazing animals, only as allowed under SMC 20.40.240, are present or may be introduced on site.

20.240.340 Wetlands – Critical area report requirements.

A. Report Required. If the Director determines that the site of a proposed development includes, is likely to include, or is adjacent to, a wetland, a wetland critical area report shall be required. Critical area report requirements for wetland areas are generally met through submission to the Director of one or more wetland critical area reports. In addition to the general critical area report requirements of SMC 20.240.080, critical area reports for wetlands shall meet the requirements of this section. Critical area reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.

B. Preparation by a Qualified Professional. Critical area reports for wetlands shall be prepared and signed by a qualified professional who is a certified wetland scientist or a noncertified wetland scientist with the minimum required experience, per SMC 20.20.042, in the field of wetland science and with experience preparing wetland delineation, impact assessments, and mitigation plans.

C. Third Party Review Required. Critical areas studies and reports on wetland areas shall be subject to third party review consistent with SMC 20.240.080(C) and in any of the additional following circumstances:

1. Compensatory mitigation is required for impacts to Category I, II, or III wetlands and or buffers; or
2. Compensatory mitigation is required for impacts to Category IV wetlands.

D. Minimum Report Contents for Wetlands. The written critical area report(s) and accompanying plan sheet(s) shall contain the following information, at a minimum:

1. The minimum report contents required per SMC 20.240.080(E);
2. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, site photos, etc.;
3. A description of the methodologies used to conduct the wetland delineations, ratings, or impact analyses including references;
4. **Site Plans.** A copy of the site plan sheet(s) for the project shall be included with the written report and shall include, at a minimum:
 - a. Maps (to scale) depicting delineated and surveyed wetland(s) and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; clearing and grading limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates); and
 - b. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project;
5. For each wetland identified on site and off site within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, per wetland ratings (SMC 20.240.320(B)); required buffers (SMC 20.240.330); hydrogeomorphic classification; wetland acreage based on a professional survey from the field delineation (acreages for on-site portion and entire wetland area including off-site portions); Cowardin classification of

vegetation communities; habitat elements; soil conditions based on site assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of inlet/outlets (if inlets/outlets can be legally accessed), estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site;

6. A description of the proposed actions, including an estimation of acreages of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative;

7. An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development;

8. A description of reasonable efforts made to apply mitigation sequencing pursuant to SMC 20.240.053(A) to avoid, minimize, and mitigate impacts to critical areas and a discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land-use activity;

9. A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions; and

10. An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.

E. **Additional Information.** When appropriate due to the proposed impacts or the project area conditions, the Director may also require the critical area report to include:

1. Where impacts are proposed, mitigation plans consistent with the requirements of SMC 20.240.082 and the wetland mitigation performance standards and requirements of SMC 20.240.350;

2. A request for consultation with WDFW, the Department of Ecology, local Native American Indian tribes, and/or other appropriate agency;

3. Copies of the joint aquatic resource permit application (JARPA) and related approvals, such as a hydraulic project approval (HPA) from the DFW, when applicable to the project; and

4. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

20.240.350 Wetlands – Compensatory mitigation performance standards and requirements.

A. Requirements for Compensatory Mitigation.

1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater shoreline ecological and biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1), (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised).

2. Mitigation ratios shall be consistent with subsection E of this section.

3. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft” (Department of Ecology Publication No. 10-06-011, February 2011, or as revised) consistent with subsection E of this section.

B. Compensating for Lost or Impacted Functions. Compensatory mitigation shall address the shoreline ecological functions and the wetland or wetland buffer functions and values affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions and values. The goal shall be for the compensatory mitigation to provide similar shoreline ecological functions and wetland functions and values as those lost, except when either:

1. The lost wetland provides minimal functions and values, and the proposed compensatory mitigation action(s) will provide equal or greater functions and values or will provide functions and values shown to be limiting within a watershed through a formal Washington State watershed assessment plan or protocol; or

2. Out-of-kind replacement of wetland type or functions and values will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.

C. Preference of Mitigation Actions. Methods to achieve compensation for wetland functions and values shall be approached in the following order of preference:

1. **Restoration.** Restoration of wetlands.

2. **Creation.** Creation (establishment) of wetlands on disturbed upland sites, such as those with vegetative cover consisting primarily of nonnative species. This should be attempted only when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive to the wetland community that is anticipated in the design.

3. **Enhancement.** Enhancement of significantly degraded wetlands in combination with restoration or creation. Enhancement alone will result in a loss of wetland acreage and is less effective at replacing the functions and values lost. Enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

4. **Preservation.** Preservation of high-quality, at-risk wetlands as compensation is generally acceptable when done in combination with restoration, creation, or enhancement; provided, that a minimum of 1:1 acreage replacement is provided by reestablishment or creation. Preservation of high-quality, at-risk wetlands and habitat may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

a. Wetland impacts will not have a significant adverse impact on habitat for listed fish, or other ESA-listed species;

b. There is no net loss of habitat functions within the watershed or basin;

c. Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost;

d. The impact area is small (generally less than one-half acre) and/or impacts are occurring to a low-functioning system (Category III or IV wetland); and

e. All preservation sites shall include buffer areas adequate to protect the habitat and its functions from encroachment and degradation.

D. Type and Location of Compensatory Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternative approach, compensatory mitigation for ecological functions shall be either in kind and on site, or in kind and within the same stream reach, sub-basin, or drift cell (if estuarine wetlands are impacted). Compensatory mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration, except when all of the following apply:

1. There are no reasonable opportunities on site or within the sub-drainage basin (e.g., on-site options would require elimination of high-functioning upland habitat), or opportunities on site or within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include:

a. Anticipated replacement ratios for wetland mitigation;

b. Buffer conditions and proposed widths;

c. Available water to maintain anticipated hydrogeomorphic classes of wetlands when restored; and

d. Proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);

2. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland;

3. Off-site locations shall be in the same sub-drainage basin, unless watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site; and

4. The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not

result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland refers to a compensation wetland (e.g., created or enhanced) that does not match the type of existing wetland that would be found in the geomorphic setting of the site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting). Likewise, it should not provide exaggerated morphology or require a berm or other engineered structures to hold back water. For example, excavating a permanently inundated pond in an existing, seasonally saturated or inundated wetland is one example of an enhancement project that could result in an atypical wetland. Another example would be excavating depressions in an existing wetland on a slope, which would require the construction of berms to hold the water.

E. Wetland Mitigation Ratios¹.

Table 20.240.350(G). Wetland mitigation ratios apply when impacts to wetlands cannot be avoided or are otherwise allowed consistent with the provisions of this chapter.

<u>Category and Type of Wetland²</u>	<u>Creation or Reestablishment (Area – in square feet)</u>	<u>Rehabilitation (Area – in square feet)</u>	<u>Enhancement (Area – in square feet)</u>	<u>Preservation (Area – in square feet)</u>
<u>Category I: Based on total score for functions</u>	<u>4:1</u>	<u>8:1</u>	<u>16:1</u>	<u>20:1</u>
<u>Category I: Mature forested</u>	<u>6:1</u>	<u>12:1</u>	<u>24:1</u>	<u>24:1</u>
<u>Category I: Estuarine</u>	<u>Case-by-case</u>	<u>6:1</u>	<u>Case-by-case</u>	<u>Case-by-case</u>
<u>Category II: Based on total score for functions</u>	<u>3:1</u>	<u>6:1</u>	<u>12:1</u>	<u>20:1</u>
<u>Category III (all)</u>	<u>2:1</u>	<u>4:1</u>	<u>8:1</u>	<u>15:1</u>
<u>Category IV (all)</u>	<u>1.5:1</u>	<u>3:1</u>	<u>6:1</u>	<u>10:1</u>

Table 20.240.350(G). Wetland mitigation ratios apply when impacts to wetlands cannot be avoided or are otherwise allowed consistent with the provisions of this chapter.

<u>Category and Type of Wetland²</u>	<u>Creation or Reestablishment (Area – in square feet)</u>	<u>Rehabilitation (Area – in square feet)</u>	<u>Enhancement (Area – in square feet)</u>	<u>Preservation (Area – in square feet)</u>
<p>¹ <u>Ratios for rehabilitation and enhancement may be reduced when combined with 1:1 replacement through creation or reestablishment. See Table 1a or 1b, Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance – Version 1 (Department of Ecology Publication No. 06-06-011a, March 2006, or as revised).</u></p> <p>² <u>Category and rating of wetland as determined consistent with SMC 20.240.320(B).</u></p>				

F. Buffer Mitigation Ratios. Impacts to buffers shall be mitigated at a 1:1 ratio.

Compensatory buffer mitigation shall replace those buffer functions lost from development.

G. Mitigation Performance Standards. The performance standards in this section shall be incorporated into mitigation plans submitted to the City for impacts to wetlands. The following performance standards shall apply to any mitigations proposed within Category I, II, III and IV wetlands and their buffers. Modifications to these performance standards consistent with the guidance in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised) may be considered for approval by the Director as alternatives to the following standards:

1. Plants indigenous to the region (not introduced or foreign species) shall be used.
2. Plant selection shall be consistent with the existing or projected hydrologic regime, including base water levels and stormwater event fluctuations.
3. Plants should be commercially available or available from local sources.
4. Plant species high in food and cover value for fish and wildlife shall be used.

5. Mostly perennial species should be planted.
6. Committing significant areas of the site to species that have questionable potential for successful establishment shall be avoided.
7. Plant selection shall be approved by a qualified professional.
8. The following standards shall apply to wetland design and construction:
 - a. Water depth shall not exceed six and one-half feet (two meters).
 - b. The grade or slope that water flows through the wetland shall not exceed six percent.
 - c. Slopes within the wetland basin and the buffer zone shall not be steeper than 3:1 (horizontal to vertical).
 - d. The wetland (excluding the buffer area) should not contain more than 60 percent open water as measured at the seasonal high water mark.
9. Substrate should consist of a minimum of one foot, in depth, of clean (uncontaminated with chemicals or solid/hazardous wastes) inorganic/organic materials.
10. Planting densities and placement of plants should be determined by a qualified professional and shown on the design plans.
11. The planting plan shall be approved by the City.
12. Stockpiling soil and construction materials should be confined to upland areas and contract specifications should limit stockpiling of earthen materials to durations in accordance with City clearing and grading standards, unless otherwise approved by the City.
13. Planting instructions shall be submitted which describe placement, diversity, and spacing of seeds, tubers, bulbs, rhizomes, sprigs, plugs, and transplanted stock.
14. Controlled release fertilizer shall be applied (if required) at the time of planting and afterward only as plant conditions warrant as determined during the monitoring process.

15. An irrigation system shall be installed, if necessary, for the initial establishment period.

16. All construction specifications and methods shall be approved by a qualified professional and the City.

17. Construction management shall be provided by a qualified professional. Ongoing work on site shall be inspected by the City.

H. Compensatory Mitigation Plan. When a project involves wetland and/or buffer impacts, a compensatory mitigation plan shall be included as part of the required critical area report. Compensatory wetland mitigation plans shall meet the minimum requirements SMC 20.240.082 and demonstrate compliance with SMC 20.240.053. Full guidance can be found in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised). The mitigation plan shall meet the following additional standards:

1. Description of the existing wetland and buffer areas proposed to be impacted. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on wetland ratings (SMC 20.240.320(B));

2. Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions. Estimate future conditions in this location if the compensation actions are not undertaken (i.e., how would this site progress through natural succession);

3. A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands;

4. A description of the proposed mitigation construction activities, construction/installation notes, and timing of activities;

5. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands);
6. Proof of establishment of notice on title for the wetlands and buffers on the project site, including the compensatory mitigation areas; and
7. The scaled plan sheets for the compensatory mitigation shall contain, at a minimum:
 - a. Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions;
 - b. Existing topography, ground-graded, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Also existing cross-sections of on-site wetland areas that are proposed to be impacted and cross-section(s) (estimated one-foot intervals) for the proposed areas of wetland or buffer compensation;
 - c. Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Also, illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions;
 - d. Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes;
 - e. Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this chapter;
 - f. A plant schedule for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, typical plant installation details and notes, total number of each species by community type, timing of installation; and

g. Performance standards (measurable standards reflective of years post-installation) for upland and wetland communities, monitoring plan, contingency plan, and maintenance schedule, and actions. Standards for success shall be established based on the performance standards identified and the functions and values being mitigated based on the guidance in Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1) (Department of Ecology Publication No. 06-06-011b, March 2006, or as revised).

Subchapter 5.

Flood Hazard Areas

20.240.360 Flood hazard – Description and purpose.

A. A flood hazard area consists of the special flood hazard areas and protected areas as defined in Chapter 13.12 SMC Floodplain Management, which comprise the regulatory floodplain.

B. It is the purpose of these regulations to ensure that the City meets the requirements of the National Flood Insurance Program and maintains the City as an eligible community for Federal flood insurance benefits.

20.240.370 Flood hazard – Designation and classification.

Flood hazard areas shall be designated and classified pursuant to the requirements of the floodplain management regulations, Chapter 13.12 SMC, which include, at a minimum, all lands identified on the 100-year floodplain designations of the current Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM) for King County as identified in SMC 13.12.300.

20.240.380 Flood hazard – Development limitations.

All development within designated flood hazard areas shall comply with Chapter 13.12 SMC, Floodplain Management, as now or hereafter amended, and is not further subject to the regulations of this chapter.

Subchapter 6.

Aquifer Recharge Areas

20.240.420 Aquifer recharge – Description and purpose.

A. Aquifer recharge areas consist of areas that provide a source of potable water and contribute to stream discharge during periods of low flow, as defined in Chapter 20.20 SMC.

B. The primary purpose of aquifer recharge area regulations is to protect aquifer recharge areas by providing for regulation of land use activities that pose a risk of potential aquifer contamination and to minimize impacts through the application of strict performance standards.

20.240.430 Aquifer recharge – Designation and classification.

A. Aquifer recharge areas shall be designated and classified based on the soil and ground water conditions and risks to surface water during periods of low hydrology. Classification depends on the combined effects of hydrogeological susceptibility to contamination and contaminant loading potential, and includes upland areas underlain by soils consisting largely of silt, clay or glacial till, upland areas underlain by soils consisting largely of sand and gravel, and wellhead protection areas and areas underlain by soils consisting largely of sand and gravel in which there is a predominantly downward or lateral component to ground water flow.

B. At the time of adoption of the amendments to the critical areas of this Master Program, Ordinance 856, there were no identified critical aquifer recharge areas within the City.

20.80.440 Aquifer recharge – Alteration.

Subject to the required permits, the following land uses and activities shall require implementation of best management practices (BMPs) as established by the Department of Ecology:

A. Land uses and activities that involve the use, storage, transport or disposal of significant quantities of chemicals, substances or materials that are toxic, dangerous or hazardous, as those terms are defined by State and Federal regulations.

B. On-site community sewage disposal systems.

C. Underground storage of chemicals.

D. Petroleum pipelines.

E. Solid waste landfills.

F. Stormwater management, including infiltration, and ground water recharge.

20.80.450 Aquifer recharge – Performance standards and requirements.

Any uses or activities that seek to be located in an aquifer recharge area, as defined within this subchapter, that involve the use, storage, transport or disposal of significant quantities of chemicals, substances, or materials that are toxic, dangerous or hazardous, as those terms are defined by State and Federal regulations, shall comply with the following additional standards:

A. Underground storage of chemicals, substances or materials that are toxic, hazardous or dangerous is discouraged.

B. Any chemicals, substances or materials that are toxic, hazardous or dangerous shall be segregated and stored in receptacles or containers that meet State and Federal standards.

C. Storage containers shall be located in a designated, secured area that is paved and able to contain leaks and spills, and shall be surrounded by a containment dike.

D. Secondary containment devices shall be constructed around storage areas to retard the spread of any spills and a monitoring system should be implemented.

E. A written operations plan shall be developed, including procedures for loading/unloading liquids and for training of employees in proper materials handling.

F. An emergency response/spill clean-up plan shall be prepared and employees properly trained to react to accidental spills.

G. Any aboveground storage tanks shall be located within a diked containment area on an impervious surface. The tanks shall include overfill protection systems and positive controls on outlets to prevent uncontrolled discharges.

H. Development should be clustered and impervious surfaces limited where possible.

I. No waste liquids or chemicals of any kind shall be discharged to storm sewers.

J. All development shall implement best management practices (BMPs) for water quality, as approved by the City, including the standards contained within the adopted stormwater manual,

such as biofiltration swales and use of oil-water separators, and BMPs appropriate to the particular use proposed.

Chapter 13.12 Floodplain Management

13.12.105 Definitions.

Unless specifically defined below, terms or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application. The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

“Adversely affect” or “adverse effect” means an effect that is a direct or indirect result of the proposed action or its interrelated or interdependent actions and the effects are not discountable, insignificant or beneficial. A discountable effect is extremely unlikely to occur. An insignificant effect relates to the size of the impact and should never reach the scale where a take occurs. Based on best judgment, a person would not: (A) be able to meaningfully measure, detect, or evaluate an insignificant effect; or (B) expect a discountable effect to occur.

“Appurtenant structure” means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year (also referred to as the “100-year flood”). The area subject to the base flood is the special flood hazard area designated on flood insurance rate maps as Zone “A” or “V” including AE, AO, AH, A1-99 and VE.

“Base flood elevation” means the elevation of the base flood above the datum of the effective flood insurance rate map (FIRM).

“Basement” means any area of the structure having its floor subgrade (below ground level) on all sides.

“Beneficial effect” means a contemporaneous positive effect without any adverse effect. In the event that the overall effect of the proposed action is beneficial, but is also likely to cause some adverse effect, then the proposed action is considered to result in an adverse effect.

“Channel migration zone” means the area within the lateral extent of likely stream channel movement due to a destabilization and erosion, rapid stream incision, aggradations, avulsions, and shifts in location of stream channels.

“Critical facility” means a facility necessary to protect the public health, safety, and welfare during a flood. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire and emergency operations installations, water and wastewater treatment plants, electric power stations, and installations which produce, use, or store hazardous materials or hazardous waste (other than consumer products containing hazardous substances or hazardous waste intended for household use).

“Development” means any manmade change to improved or unimproved real estate in the regulatory floodplain, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of equipment or materials, subdivision of land, removal of more than five percent of the native vegetation on the property, or alteration of natural site characteristics.

“Director” means the ~~public works~~ Planning and Community Development Director or designee.

“Dry floodproofing” means any combination of structural and nonstructural measures that prevent floodwaters from entering a structure.

“Elevation certificate” means the most current version of the FEMA National Flood Insurance Program form that documents the elevation of a structure within a special flood hazard area relative to the ground level so as to ensure compliance with this chapter, to determine the flood insurance premium rate, and/or to support a map amendment or revision.

“ESA” means the Endangered Species Act.

“Federal Emergency Management Agency (FEMA)” means the agency responsible for administering the National Flood Insurance Program.

“FEMA” means Federal Emergency Management Agency.

“FIRM” means flood insurance rate map.

“Fish and wildlife habitat conservation area” means lands needed to maintain species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. These areas are designated in SMC 20.80.260 through 20.80.300.

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- A. The overflow of inland or tidal waters; and/or
- B. The unusual and rapid accumulation of runoff of surface waters from any source.

“Flood insurance rate map (FIRM)” means the official map on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

“Flood insurance study” means the official report provided by the Federal Emergency Management Agency that includes flood profiles, the flood insurance rate map, and the water surface elevation of the base flood.

“Flood protection elevation (FPE)” means the elevation above the datum of the effective FIRM to which new and substantially improved structures must be protected from flood damage.

“Floodway” means the channel of a stream 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 foot at any point.

“Functionally dependent use” means a use that must be located or carried out close to water, for example docking or port facilities necessary for the unloading of cargo or passengers, or shipbuilding and ship repair.

“Historic structure” means a structure that:

- A. Is listed on the National Register of Historic Places, the Washington Heritage Register, or the Washington Heritage Barn Register; or

B. Has been certified to contribute to the historical significance of a registered historic district.

“Hyporheic zone” means a saturated layer of rock or sediment beneath and/or adjacent to a stream channel that contains some proportion of channel water or that has been altered by channel water infiltration.

“Impervious surface” means a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater.

“Lowest floor” means the lowest floor of the lowest enclosed area (including basement or crawl space) of a structure. An unfinished or flood-resistant enclosure, used solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a structure’s lowest floor; provided, that such enclosure is compliant with SMC 13.12.500(B)(6), so that there are adequate openings to allow floodwaters into the area.

“Manufactured home” means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle.”

“Manufactured home park or subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

“Market value” means either the true and fair value of the property as established by the county assessor or by a Washington State certified or licensed appraiser.

“Native vegetation” means plant species that are indigenous to the community’s area and that reasonably could be expected to naturally occur on the site.

“Natural floodplain functions” means the contribution that a floodplain makes to support habitat, including but not limited to providing flood storage and conveyance, reducing flood velocities, reducing sedimentation, filtering nutrients and impurities from runoff, processing organic wastes, moderating temperature fluctuations, and providing breeding and feeding grounds, shelter, and refugia for aquatic or riparian species.

“New construction” means structures for which the “start of construction” commenced on or after the effective date of this chapter.

“NMFS” means National Marine Fisheries Service.

“Protected area” means the lands that lie within the boundaries of the floodway, the riparian habitat zone, and the channel migration area. Because of the impact that development can have on flood heights and velocities and habitat, special rules apply in the protected area.

“Recreational vehicle” means a vehicle:

A. Built on a single chassis; and

B. Four hundred square feet or less when measured at the largest horizontal projection; and

C. Designed to be self-propelled or permanently towable by an automobile or light duty truck; and

D. Designed primarily for use as temporary living quarters for recreational, camping, travel, or seasonal use, not as a permanent dwelling.

“Regulatory floodplain” means the area of the special flood hazard area plus the protected area, as defined in SMC 13.12.300. The term also includes newly designated areas that are delineated pursuant to SMC 13.12.300(E).

“Riparian” means of, adjacent to, or living on the bank of a river, lake, pond, ocean, sound, or other water body.

“Riparian habitat zone” means the water body and adjacent land areas that are likely to support aquatic and riparian habitat as detailed in SMC 13.12.300(D)(2).

“Special flood hazard area (SFHA)” means the land subject to inundation by the base flood. Special flood hazard areas are designated on flood insurance rate maps with the letter “A” or “V” including AE, AO, AH, A1-99 and VE. The special flood hazard area is also referred to as the area of special flood hazard or SFHA.

“Start of construction” includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The “actual start” means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the “actual start of construction” means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

“Structure” means a walled and roofed building, including a gas or liquid storage tank that is principally above ground.

“Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

“Substantial damage” also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

“Substantial improvement” means any repair, reconstruction, rehabilitation, addition, replacement, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

A. Before the “start of construction” of the improvement; or

B. Before damage occurred, if the structure has been damaged or is being restored.

Substantial improvement occurs with the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects external dimensions.

Substantial improvement includes structures that have incurred “substantial damage,” regardless of the actual repair work performed.

Substantial improvement does not include 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.

“Variance (floodplain)” means a grant of relief from the requirements of this chapter that permits construction in a manner that would otherwise be prohibited by this chapter.

“Water typing” means a system for classifying water bodies according to their size and fish habitat characteristics. The Washington Department of Natural Resources’ forest practices water typing classification system is hereby adopted by reference. The system defines four water types:

- A. Type “S” – Shoreline. Streams that are designated “shorelines of the state,” including marine shorelines.
- B. Type “F” – Fish. Streams that are known to be used by fish or meet the physical criteria to be potentially used by fish.
- C. Type “Np” – Non-fish perennial streams.
- D. Type “Ns” – Non-fish seasonal streams.

“Waters of the state” includes lakes, rivers, ponds, streams, inland waters, underground water, salt waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the state, sewers, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

“Zone” means one or more areas delineated on the FIRM. The following zones may be used on the adopted FIRM. The special flood hazard area is comprised of the A and V zones.

A	SFHA where no base flood elevation is provided.
A#	Numbered A Zones (e.g., A7 or A14), SFHA with a base flood elevation.
AE	SFHA with a base flood elevation.
AO	SFHA subject to inundation by shallow flooding usually resulting

	from sheet flow on sloping terrain, with average depths between one and three feet. Average flood depths are shown.
AH	SFHA subject to inundation by shallow flooding (usually pond areas) with average depths between one and three feet. Base flood elevations are shown.
B	The area between the SFHA and the 500-year flood of the primary source of flooding. It may also be an area with a local, shallow flooding problem or an area protected by a levee.
C	An area of minimal flood hazard, as above the 500-year flood level of the primary source of flooding. B and C zones may have flooding that does not meet the criteria to be mapped as a special flood hazard area, especially pond and local drainage problems.
D	Area of undetermined but possible flood hazard.
V	The SFHA subject to coastal high hazard flooding including waves of three feet or greater in height. There are three types of V zones: V, V#, and VE, and they correspond to the A zone designations.
X	The area outside the mapped SFHA.
X – Shaded	The same as a Zone B, above.

13.12.200 Floodplain administrator.

A. Administrator Designation. The ~~public works~~Planning and Community Development Director is hereby appointed as the floodplain administrator, to administer and implement this chapter by granting or denying floodplain development permit applications in accordance with its provisions.

B. Administrator Duties. The director's duties shall include, but shall not be limited to, the following:

1. Ensure that all development activities within the regulatory floodplain of the jurisdiction of the city meet the requirements of this chapter.
2. Review all floodplain development permits to determine that the permit requirements of this chapter have been satisfied.
3. Review all floodplain development permits to determine if the proposed development is located in the protected area. If located in the protected area, ensure that the provisions of SMC 13.12.600 are met.
4. Review all floodplain 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, including those local, state or federal permits that may be required to assure compliance with the Endangered Species Act and/or other appropriate state or federal laws.
5. Delegate to the building official, or designee, the responsibility to inspect all development projects before, during, and after construction to ensure compliance with all provisions of this chapter, including proper elevation of the structure.
6. Maintain for public inspection all records pertaining to the provisions of this chapter.
7. Submit reports as required for the National Flood Insurance Program.
8. Notify FEMA of any proposed amendments to this chapter.
9. Cooperate with state and federal agencies to improve flood and other technical data and notify FEMA of any new data that would revise the FIRM.

C. Upon receipt of a permit for a development project within a floodplain, the director shall compare the elevation of the site to the base flood elevation. A development project is not subject to the requirements of this chapter if it is located on land that can be shown to be:

1. Outside the protected area; and
2. Higher than the base flood elevation.

D. The director shall inform the applicant that the project may still be subject to the flood insurance purchase requirements unless the owner receives a letter of map amendment from FEMA.

E. The director shall make interpretations where needed, as to the exact location of the boundaries of the regulatory floodplain, the SFHA and the protected area where there appears to be a conflict between the mapped SFHA boundary and actual field conditions as determined

by the base flood elevation and ground elevations. The applicant may appeal the director's interpretation of the location of the boundary to the hearing examiner according to the procedures described in SMC 20.30.200 through 20.30.270.

Critical Areas – General Provisions

20.80.010 Purpose.

A. The purpose of this chapter is to establish supplemental standards for the protection of critical areas, as defined in SMC 20.20.014, in compliance with the provisions of the Washington Growth Management Act of 1990 (Chapter 36.70A RCW) and consistent with the goals and policies of the Shoreline Comprehensive Plan in accordance with the procedures of Chapter 20.30 SMC. The standards of this chapter, as incorporated into the Shoreline Master Program, in SMC ~~20.230.030(A) General Regulations (1)~~20.240, shall apply within the shoreline jurisdiction, where critical areas are present. If there are any conflicts or unclear distinctions between the Master Program and the City's critical areas regulations, the most restrictive requirements apply as determined by the City.

B. By identifying and regulating development and alterations to critical areas and their buffers, it is the intent of this chapter to:

1. Protect the public from injury, loss of life, property damage or financial losses due to flooding, erosion, landslide, seismic events, or soils subsidence;
2. Protect unique, fragile and valuable elements of the environment;
3. Reduce cumulative adverse environmental impacts to water quality, wetlands, streams, and other aquatic resources, fish and wildlife habitat, landslide hazards, and other geologically unstable features and protect the functions and values of critical areas from overall net loss;
4. Ensure the long-term protection of ground and surface water quality;
5. Alert members of the public, including appraisers, assessors, owners, potential buyers, or lessees, to the development limitations of critical areas and their required buffers;
6. Serve as a basis for exercise of the City's substantive authority under the State Environmental Policy Act (SEPA) and the City's Environmental Procedures (Chapter 20.30 SMC, Subchapter 8); and comply with the requirements of the Growth Management Act (Chapter 36.70A RCW) and its implementing rules;
7. Establish standards and procedures that are intended to protect critical areas while accommodating the rights of property owners to use their property in a reasonable manner; and
8. Provide for the management of critical areas to maintain their functions and values and to restore degraded ecosystems.

C. This chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this chapter to make a parcel of property unusable by denying its owner reasonable economic use of the property or to prevent the provision of public facilities and services necessary to support existing development and planned for by the community without decreasing current service levels below minimum standards.