

Matrix of proposed amendments to BMC 20.14 Critical Areas (Draft Chapter follows this matrix):

Zoning Code Chapter/Section (Bremerton Municipal Code)	Proposed Amendments Summary	Further Information
20.14 Critical Area		See The Watershed Company Gap Analysis for further clarification on proposed amendments to this chapter. The analysis can be seen at the City of Bremerton website: www.bremerton2035.com
20.14.200 Definitions	(d) Revised the definition of “adjacent”	“Adjacent” definition to remove (c) bald eagle reference.
20.14.740 Special Reports	In BMC 20.14.740(d) remove sentence about recommended documentation to consider.	Did not want to limit documentation to consider as there are more helpful resources to assist in Special Report considerations.
20.14.330 Development Standards – Wetlands	Proposing to not remove the first sentence that states that <i>“activities and use shall be prohibited in wetlands and wetland buffers.”</i>	Clarification was provided to this section which explicitly identifies activities that are regulated by this Chapter (such as one cannot place obstructions in their wetlands), but with that revision Staff proposed to remove the first sentence that identifies that these items are, per the code, typically prohibited. This sentence is proposing to remain.

Chapter 20.14 CRITICAL AREAS

Sections:

- 20.14.100 GENERAL PROVISIONS.
- 20.14.110 PURPOSE.
- 20.14.115 INTENT.
- 20.14.120 SCOPE AND APPLICABILITY.
- 20.14.125 RELATIONSHIP TO OTHER REGULATIONS.
- 20.14.130 ADMINISTRATION AND PROCEDURES.
- 20.14.140 APPEALS.
- 20.14.145 EXEMPTIONS.
- 20.14.150 PUBLIC AGENCY EXCEPTION.
- 20.14.155 REASONABLE USE EXCEPTION.
- 20.14.160 NONCONFORMING USES/STRUCTURES.
- 20.14.165 BONDS.
- 20.14.170 ENFORCEMENT.
- 20.14.175 VIOLATION - PENALTY.
- 20.14.180 SEVERABILITY.
- 20.14.190 TREE REMOVAL.
- 20.14.200 DEFINITIONS.
- 20.14.300 WETLANDS.
- 20.14.310 DESCRIPTION AND PURPOSE.
- 20.14.320 CLASSIFICATION AND DESIGNATION.
- 20.14.330 DEVELOPMENT STANDARDS - WETLANDS.
- 20.14.340 MITIGATION REQUIREMENTS - WETLANDS.
- 20.14.350 PERFORMANCE STANDARDS - SUBDIVISIONS.
- 20.14.360 WETLAND REPORT.
- 20.14.400 CRITICAL AQUIFER RECHARGE AREAS.
- 20.14.410 DESCRIPTION AND PURPOSE.
- 20.14.420 CLASSIFICATION AND DESIGNATION.
- 20.14.430 DEVELOPMENT STANDARDS.
- 20.14.440 ALLOWED USES WITH PERFORMANCE STANDARDS.
- 20.14.450 HYDROGEOLOGIC ASSESSMENT.
- 20.14.500 FREQUENTLY FLOODED AREAS.
- 20.14.510 DESCRIPTION AND PURPOSE.
- 20.14.520 CLASSIFICATION AND DESIGNATION.
- 20.14.530 DEVELOPMENT STANDARDS.
- 20.14.600 GEOLOGICALLY HAZARDOUS AREAS.
- 20.14.610 PURPOSE.
- 20.14.620 CLASSIFICATION.
- 20.14.630 DEVELOPMENT STANDARDS.
- 20.14.650 MITIGATION, PERFORMANCE STANDARDS AND REQUIREMENTS.
- 20.14.660 SPECIAL REPORTS.
- 20.14.700 FISH AND WILDLIFE HABITAT CONSERVATION AREAS.
- 20.14.710 DESCRIPTION AND PURPOSE.
- 20.14.720 CLASSIFICATION AND DESIGNATION OF FISH AND WILDLIFE HABITAT CONSERVATION AREAS.
- 20.14.730 DEVELOPMENT STANDARDS.
- 20.14.740 SPECIAL REPORTS.
- 20.14.750 MITIGATION STANDARDS AND CRITERIA.
- 20.14.760 MONITORING AND CONTINGENCY PLAN.

20.14.100 GENERAL PROVISIONS.

BMC [20.14.100](#) through [20.14.175](#) are general provisions pertaining to critical areas.

20.14.110 PURPOSE.

The purpose of this chapter is to protect the public health, safety, and welfare by establishing provisions to classify, protect, and preserve Bremerton's critical areas and their functions and values by providing standards for development in association with these areas. The identification and protection of critical areas is required by the Washington State Growth Management Act of 1990 (Chapter 17, Laws of 1990).

20.14.115 INTENT.

Critical areas include wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas. The intent of this chapter is to preserve the beneficial functions and values of critical areas, and to minimize potential dangers or public costs associated with the inappropriate use of such areas, and to manage development in or adjacent to critical areas. This chapter contains classification criteria and preservation standards for each type of critical area. Classification criteria identify physical characteristics by which critical areas are designated. Preservation standards protect critical areas from degradation caused by improper development. These criteria and standards will secure the public health, safety and welfare by:

- (a) Reducing risk of damage due to erosion, flooding, and landslides;
- (b) Reducing the risks to the public from personal injury, loss of life, or property damage;
- (c) Maintaining surface water quality and protecting groundwater areas which help recharge (purify or resupply) rivers, streams, and aquifers;
- (d) Maintaining and protecting priority fish and wildlife habitats;
- (e) Maintaining and protecting the habitat of threatened and endangered wildlife species;
- (f) Avoiding public expenditures to correct damaged or degraded critical ecosystems;
- (g) Alerting appraisers, assessors, owners, potential buyers, or lessees to the potential presence of a critical ecosystem and possible development limitations;
- (h) Providing flexibility and attention to site-specific characteristics when administering code, allowing for reasonable use of private property and the provision of public facilities and services necessary to support existing development;
- (i) Applying the best available science, as determined according to WAC [365-195-900](#) through [365-195-925](#);
- (j) Implementing the goals, policies, guidelines, and requirements of Bremerton's Comprehensive Plan and the Washington State Growth Management Act.

20.14.120 SCOPE AND APPLICABILITY.

- (a) General. This chapter applies to any public or private activity or action which would alter the condition of any land, water or vegetation, or construct or alter any structure or improvement regulated by this title, on any land which meets the classification standards for any critical area defined herein. Such activities or actions include, but are not limited to:
 - (1) Building, demolition, clearing, grubbing, grading, filling;
 - (2) Subdivisions and short plats;
 - (3) Reclassifications, site plan approvals, shoreline substantial development permits, and special and conditional use permits;
 - (4) Temporary use permits, variances, exceptions and waivers.
- (b) Where one (1) site is classified as containing two (2) or more critical areas, the project shall meet the minimum standards and requirements for each identified critical area as set forth in this chapter.
- (c) Mapping. Critical areas may be located through the use of any and all information from the United States Department of Agriculture, Department of Fish and Wildlife, National Resources Conservation

Service, the United States Geological Survey, the Washington Department of Ecology, the Coastal Zone Atlas, the National Wetlands Inventory maps, Bremerton topography maps, the Kitsap County Generalized Wetland and Critical Areas Inventory maps, Kitsap Public Utilities District maps, and Kitsap County Assessor's maps, and other Geographical Information Systems (GIS) data provided by Kitsap County. The above-listed maps and data sources are only guidelines available for reference. The actual location of critical areas must be determined on a site-by-site basis according to the classification criteria found in this chapter.

20.14.125 RELATIONSHIP TO OTHER REGULATIONS.

Applications for permits and approvals are subject to the provisions of this chapter as well as to other provisions of State and City law, including all other chapters of BMC Title [20](#), Land Use Code. Where this chapter imposes greater restrictions than existing regulations, easements, covenants or deed restrictions, the provisions of this chapter shall prevail.

20.14.130 ADMINISTRATION AND PROCEDURES.

The requirements and criteria of this chapter shall be applied at the time of application for any development proposal, land use project or nonproject action requiring permit approval subject to the BMC. The requirements and criteria of this chapter shall be applied in conjunction with review for permits required by other Chapters of the BMC. Procedures specifically related to the application of this chapter are as follows:

- (a) Project Permits. The procedures as set forth in Chapter [20.02](#) BMC, Project Permits, shall apply unless modified by this chapter.
- (b) Presubmittal Conference. Any applicant intending to construct, grade or conduct any activity subject to this chapter in a critical area or its buffer is encouraged to schedule a presubmittal conference during the earliest possible stages of project planning to discuss impact avoidance before large commitments have been made to a particular project design. Effort put into presubmittal conferences and planning will help applicants create projects which will be more quickly and easily processed.
- (c) Burden of Proof. Applications for any proposal subject to this chapter shall be reviewed by the Department of Community Development for completeness and consistency with this chapter. At every stage, the burden of proof demonstrating that any proposed development is consistent with this title is upon the applicant.
- (d) Special Reports. When a critical area is on-site, or the Department of Community Development determines a likelihood that a critical area is on-site, the Department may require submittal of additional special reports and studies prepared by qualified specialists to make an assessment or delineation of the critical area. Sections of this chapter include detailed procedures for preparation of special reports.
- (e) Site Plan. Applications for any proposal subject to this chapter shall include a site plan drawn to scale identifying locations of critical areas in addition to proposed structures and activities. Site Plan submittal shall meet the standards of BMC [20.58.080](#), Site Plan Review.
- (f) Conditions. The Director may attach any conditions deemed necessary to minimize or avoid impacts to any critical area in order to meet the requirements and intent of this chapter. Development may be prohibited in a proposed site based on criteria set forth in this chapter.
- (g) Notice to Title and Hold Harmless. The owner of any property upon which approval under BMC Title [20](#), or BMC Title [17](#), is sought, with a critical area or critical area buffer verified on-site through an assessment delineation or permit application, shall record a "Notice to Title" of the presence of the critical area and/or buffer with the Kitsap County Auditor when required by the Department. The Department may require recording of a "Notice to Title and Hold Harmless" in cases where a site-specific critical area could pose potential threats to safety or property if altered through future acts. Said document shall also serve as a hold harmless and covenant holding the City harmless from claims due to soil disturbances or any development on the property in conjunction with issuance of development permits by the City. The notice

shall be notarized and the applicant must submit proof that the notice has been legally recorded before the final approval for development is issued.

(h) Time Limit. The approvals granted under this chapter shall be valid for the same time period as the underlying permit (e.g., preliminary plat, building permit, etc.). If the underlying permit does not contain a specified expiration date, then approvals granted under this title shall be valid for a period of three (3) years from the date of issue, unless a longer or shorter period is specified by the Department.

(i) Activities Not Requiring a Permit. If an activity is subject to this chapter per BMC [20.14.120](#) but is not subject to any established City permit, the proponent shall obtain written authorization from the Department prior to commencement to ensure compliance with the chapter.

(j) Modifications and Reductions. Modifications or reductions to critical areas buffers, setbacks, or other standards through a site-specific or special report shall be processed as a Type I (for applications where the underlying permit does not require SEPA) or Type II (for applications where the underlying permit requires SEPA) decision per BMC [20.02.160](#), Table 040.

20.14.140 APPEALS.

An appeal of a decision regarding a critical area may be made in accordance with BMC [20.02.140](#).

20.14.145 EXEMPTIONS.

An exemption means that an activity is fully exempt from critical areas review, and not subject to the provisions of this chapter. The proponent of the activity may submit a written request for exemption to the Director that describes the activity and states the exemption listed in this section that applies. The Director shall review the request to verify that it complies with this chapter and approve or deny the exemption as a Type I administrative determination. All exempted activities shall use best management practices to the greatest possible extent to avoid potential impacts to critical areas. The following developments, activities and associated uses shall be exempt:

(a) Emergencies. Emergency activities are those activities necessary to prevent an immediate threat to public health safety or welfare, or that pose an immediate risk of damage to property and that require remedial or preventative action in a short time frame. The person or agency undertaking such action shall notify the Department, and the Director shall determine if the action taken is within the scope of the emergency action allowed in this section. After the emergency, the person or agency shall fully restore and/or mitigate any impacts to the critical areas and buffers resulting from the action in accordance with an approved critical area report and mitigation plan.

(b) Operation Maintenance or Repair. Operation maintenance or repair of existing structures not requiring permits, if the activity does not further alter or increase the impact to critical areas or their buffers.

(c) Passive Outdoor Activities. Recreation, education, and scientific research activities that do not degrade the critical area.

(d) Forest Practices. Forest practices regulated and conducted in accordance with the provisions of Chapter [76.09](#) RCW and forest practices regulations, WAC Title [222](#).

(e) Existing Infrastructure Maintenance and Repair. Maintenance and repair of legally existing roads, utilities, infrastructure and associated facilities.

(f) Activities Within the Improved Right-of-Way. Construction of new utility facilities, improvements or upgrades to existing utility facilities that take place within existing improved rights-of-way or existing impervious surfaces that do not increase the amount of impervious surface.

20.14.150 PUBLIC AGENCY EXCEPTION.

An exception means that an activity may receive special consideration and relief from certain provisions of this chapter, but the activity is subject to the chapter, and must undergo full critical areas review. Public agencies may make an application for exception to the Department for construction of items such as new

roads, utilities, infrastructure and associated facilities. The application shall include critical area identification; critical area report, including mitigation plan if necessary; and any other related project documents such as environmental documents pursuant to SEPA, Chapter [43.21C](#) RCW. The decision whether to grant the public agency utility exception shall be processed as a Type III Hearing Examiner decision per Chapter [20.02](#) BMC pursuant to the following review criteria:

- (a) There is no other practical alternative to the proposed development with less impact on the critical areas; and
- (b) The application of this chapter would unreasonably restrict the ability to provide utility services to the public.

20.14.155 REASONABLE USE EXCEPTION.

An exception means that an activity may receive special consideration and relief from certain provisions of this chapter, but the activity is subject to the chapter, and must undergo full critical areas review. An applicant may apply for a reasonable use exception if it can be demonstrated that application of this chapter would deny all reasonable use of the subject property. The application shall include critical areas identification; critical areas report including mitigation plan, if necessary; and any other related project documents such as environmental documents and special studies. The decision whether to grant the reasonable use exception shall be processed as a Type III Hearing Examiner decision per Chapter [20.02](#) BMC pursuant to the following review criteria:

- (a) The application of this chapter would deny all reasonable use of the property;
- (b) No other reasonable use of the property has less impact on the critical area;
- (c) Any alteration is the minimum necessary to allow for reasonable use of the property; and
- (d) The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant after the effective date of this title or its predecessor.

20.14.160 NONCONFORMING USES/STRUCTURES.

An established use or existing structure that was lawfully permitted prior to the adoption of this chapter, but which is not in compliance with this chapter, may continue subject to the provisions of Chapter [20.54](#) BMC.

20.14.165 BONDS.

All bonds and acceptable securities guaranteeing compliance with this chapter shall be set in the amount of one hundred fifty (150) percent of the average expected value of the project. The value of the bond shall be based on the average of three (3) contract bids that establish all costs of compensation, including costs relative to performance, monitoring, maintenance, and provision for contingency plans.

- (a) Performance Bonds. Except for public agencies, applicants receiving a permit are required to post a cash performance bond or other acceptable security to guarantee compliance with this chapter prior to beginning any site work. The surety shall guarantee that work and materials used in construction are free from defects. All bonds shall be approved by the City Attorney. The surety or bonds cannot be terminated or canceled without written approval. The Director shall release the bond after documented proof that all structures and improvements have been shown to meet the requirements of this chapter and that a maintenance bond has been posted, if required.
- (b) Maintenance Bonds. Except for public agencies, an applicant shall be required to post a cash maintenance bond or other acceptable security guaranteeing that structures and improvements required by this chapter will perform satisfactorily for a minimum of three (3) years after they have been constructed and approved. All bonds shall be on a form approved by the City Attorney. Without written release, the bond cannot be canceled or terminated. The Director shall release the bond after determination that the performance standards established for measuring the effectiveness and success of the project have been met.

20.14.170 ENFORCEMENT.

- (a) No regulated activity, as defined in BMC [20.14.200](#), shall be conducted without a permit and without full compliance with this chapter. All activities not allowed or conditionally approved shall be prohibited.
- (b) The Director shall have authority to enforce this chapter, issue delineation verifications, permits, and violation notices, and process violations through the use of administrative orders and/or civil and criminal actions as provided for herein, and as listed in BMC [20.40.180](#).
- (c) In the event of violation, the City shall have the authority to order restoration, enhancement, or creation measures to compensate for the destroyed or degraded critical area. If work is not completed in a reasonable time following the order, the City may implement a process to restore or enhance the affected site. This includes creation of new wetlands or streams to offset loss as a result of violation of the provisions in this chapter. The violator shall be liable for all costs of such action, including administrative costs.
- (d) Failure to comply with an administrative order of the Director under this section shall constitute a violation subject to enforcement pursuant to this section.

20.14.175 VIOLATION - PENALTY.

- (a) Any violation of any provision of this chapter constitutes a civil violation under Chapter [1.04](#) BMC for which a monetary penalty may be assessed and abatement and/or enforcement may be required as provided therein.
- (b) In addition to or as an alternative to any other penalty provided in this chapter or by law, any person who violates any provision of this chapter shall be guilty of a misdemeanor pursuant to BMC [1.12.020](#)(2). Each day, or a portion thereof, during which a violation occurs shall constitute a separate violation.

20.14.180 SEVERABILITY.

If any clause, sentence, paragraph, section, or part of this chapter or the application thereof to any person or circumstances shall be adjudged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered and shall not affect or invalidate the remainder of any part thereof to any other person or circumstances, and to this end, the provisions of each clause, sentence, paragraph, section or part of this chapter are hereby declared to be severable.

20.14.190 TREE REMOVAL

Trees and other vegetation are important elements of the physical environment especially those located within or near critical areas. This section addresses removing trees within critical areas or their associated buffers. Removal of trees within geological hazardous area shall also comply with BMC 20.14.630(e) and (f).

- (a) Elimination of Danger Trees. Removal of danger trees within the critical area or associated buffers may be allowed only if such activity is approved by the Department, provided a certified arborist in the State of Washington makes a written determination that the trees proposed for elimination present a legitimate safety hazard.
- (b) Tree Replacement. Trees removed from the critical area or associated buffers, including danger trees, must comply with the following provisions:
 - (1) Removal of trees greater than 6 inches in diameter at four (4) feet in height shall be replaced at a ratio of 3:1 with native species and shall be re-established within any required buffer on the project site.
 - (2) Shoreline Jurisdiction. Properties located within the City's shoreline jurisdiction are subject to additional tree removal and replacement standards if the tree(s) to be removed are located

within the required shoreline buffer. See Shoreline Master Program section 7.020 for additional standards.

20.14.200 DEFINITIONS.

Words not defined in this title shall be as defined in the Bremerton Municipal Code, the Washington Administrative Code, or the Revised Code of Washington. Words not found in either code shall be as defined in Webster's Third New International Dictionary, latest edition.

"Active fault" means a fault that is considered likely to undergo renewed movement within a period of concern to humans. Faults are commonly considered to be active if the fault has moved one (1) or more times in the last ten thousand (10,000) years, but faults may also be considered active in some cases if movement has occurred in the last five hundred thousand (500,000) years.

"Adaptive management" 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.

"Adjacent," for the purposes of this chapter, means immediately adjoining (in contact with the boundary of the influence area) or within a distance that is less than that needed to separate activities from critical areas to ensure protection of the functions and values of the critical areas. "Adjacent" shall mean any activity or development located:

A. On a site immediately adjoining a critical area;

B. A distance equal to or less than the required critical area buffer width and building setback;

~~C. A distance equal to or less than one-half (1/2) mile (two thousand six hundred forty (2,640) feet) from a bald eagle nest;~~

~~DC.~~ A distance equal to or less than three hundred (300) feet upland from a stream, wetland, or water body;

~~ED.~~ Bordering or within the floodway, floodplain, or channel migration zone; or

~~FE.~~ A distance equal to or less than two hundred (200) feet from a critical aquifer recharge area.

"Advance mitigation" means mitigation of an anticipated critical area impact or hazard completed according to an approved critical area report and prior to site development.

"Agricultural land" means land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW [84.33.100](#) through [84.33.140](#), or livestock, and/or that has been designated as long-term commercial significance for agricultural production.

"Alluvial fan flooding" means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

"Alteration" means any human-induced change in an existing condition of a critical area or its buffer.

Alterations include, but are not limited to, clearing, grubbing, grading, filling, channelizing, dredging, clearing (vegetation), construction, compaction, excavation, or any other activity that changes the character of the critical area.

"Anadromous fish" means fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, adult char (bull trout) can live for many years, moving in and out of saltwater and spawning each year. The life history of Pacific salmon and char contains critical periods of time when these fish are more susceptible to environmental and physical damage than at other times. The life history of salmon, for example, contains the following stages: upstream migration of adults, spawning, inter-gravel incubation, rearing, smoltification (the time period needed for juveniles to adjust their body functions to live in the marine environment), downstream migration, and ocean rearing to adults.

"Applicant" means a person who files an application for permit under this title and who is either the owner of the land on which that proposed activity would be located, a contract purchaser, or the authorized agent of such a person.

"Aquifer" means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

"Aquifer, confined" means an aquifer bounded above and below by beds of distinctly lower permeability than that of the aquifer itself and that contains groundwater under sufficient pressure for the water to rise above the top of the aquifer.

"Aquifer recharge areas" means areas that, due to the presence of certain soils, geology, and surface water, act to recharge groundwater by percolation.

"Aquifer, sole source" means an area designated by the U.S. Environmental Protection Agency under the Safe Drinking Water Act of 1974, Section 1424(e). The aquifer(s) must supply fifty (50) percent or more of the drinking water for an area without a sufficient replacement available.

"Aquifer susceptibility" means the ease with which contaminants can move from the land surface to the aquifer based solely on the types of surface and subsurface materials in the area. Susceptibility usually defines the rate at which a contaminant will reach an aquifer unimpeded by chemical interactions with the vadose zone media.

"Aquifer, unconfined" means an aquifer not bounded above by a bed of distinctly lower permeability than that of the aquifer itself and containing groundwater under pressure approximately equal to that of the atmosphere. This term is synonymous with the term "water table aquifer."

"Area of shallow flooding" means an area designated AO or AH Zone on the flood insurance map(s). The base flood depths range from one (1) to three (3) feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.

"Base flood" means a flood event having a one (1) percent chance of being equaled or exceeded in any given year, also referred to as the one hundred (100) year flood. Designations of base flood areas on flood insurance map(s) always include the letters A or V.

"Basement" means any area of the building having its floor below ground level on all sides.

"Best available science" means current scientific information used in the process to designate, protect, or restore critical areas, which is derived from a valid scientific process as defined by WAC [365-195-900](#) through [365-195-925](#). Sources of the best available science are included in "Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas" published by the Washington State Department of Community, Trade and Economic Development.

"Best management practices (BMPs)" means conservation practices or systems of practices and management measures that:

- A. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;
- B. Minimize adverse impacts to surface water and groundwater flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
- C. Protect trees and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and
- D. Provide standards for proper use of chemical herbicides within critical areas.

The City shall monitor the application of best management practices to ensure that the standards and policies of this title are adhered to.

"Biodiversity" means the variety of animal and plant life and its ecological processes and interconnections represented by the richness of ecological systems and the life that depends on them, including human life and economies.

"Breakaway wall" means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.

"Buffer" or "buffer zone" means an area that is contiguous to and protects a critical area which is required for the continued maintenance, functioning, and/or structural stability of a critical area.

"Channel migration zone (CMZ)" means the lateral extent of likely movement along a stream or river during the next one hundred (100) years as determined by evidence of active stream channel movement over the past one hundred (100) years. Evidence of active movement over the one hundred (100) year time frame can be inferred from aerial photos or from specific channel and valley bottom characteristics. The time span typically represents the time it takes to grow mature trees that can provide functional large woody debris to streams. A CMZ is not typically present if the valley width is generally less than two (2) bankfull widths, if the stream or river is confined by terraces, no current or historical aerial photographic evidence exists of significant channel movement, and there is no field evidence of secondary channels with recent scour from stream flow or progressive bank erosion at meander bends. Areas separated from the active channel by legally existing artificial channel constraints that limit bank erosion and channel avulsion without hydraulic connections shall not be considered within the CMZ.

"Clearing" means the removal of noninvasive surface vegetation including, but not limited to, brush, shrubs, natural grasses, and trees. Removal of surface vegetation in quantities greater than the minimum necessary to maintain a well functioning natural habitat constitutes clearing. For the purposes of this chapter, activities described in BMC [20.14.630\(f\)](#), Vegetation Thinning, constitute clearing.

"Coastal high hazard area" means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The area is designated on the flood insurance map(s) as Zone V1-30, VE, or V.

"Compensation project" means actions necessary to replace project-induced critical area and buffer losses, including land acquisition, planning, construction plans, monitoring, and contingency actions.

"Compensatory mitigation" means replacing project-induced losses or impacts to a critical area, and includes, but is not limited to, the following:

- A. "Creation" means actions performed to intentionally establish a critical area such as a wetland at a site where it did not formerly exist.
- B. "Enhancement" means actions performed to improve the condition of existing degraded critical areas such as a wetland so that the functions they provide are of a higher quality.
- C. "Preservation" means actions taken to ensure the permanent protection of existing, high-quality critical areas such as wetlands.
- D. "Restoration" means actions performed to reestablish critical areas functional characteristics and processes that have been lost by alterations, activities, or catastrophic events within an area that no longer meets the definition of a wetland.

"Conservation easement" means a legal agreement that the property owner enters into to restrict uses of the land. Such restrictions can include, but are not limited to, passive recreation uses such as trails or scientific uses and fences or other barriers to protect habitat. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property, therefore providing permanent or long-term protection.

"Critical aquifer recharge area" means areas determined to have a critical recharging effect on aquifers used for potable water as classified per BMC [20.14.420](#).

"Critical areas" include any of the following areas or ecosystems: aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands, as defined in Chapter [36.70A](#) RCW and this title.

"Critical area tract" means land held in private ownership and retained in an open condition in perpetuity for the protection of critical areas. Lands within this type of dedication may include, but are not limited to,

portions and combinations of forest habitats, grasslands, shrub steppes, on-site watersheds, one hundred (100) year floodplains, shorelines or shorelines of statewide significance, riparian areas, and wetlands.

"Critical facility" means a facility for which even a slight chance of flooding, inundation, or impact from a hazard event might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire and emergency response installations, and installations that produce, use, or store hazardous materials or hazardous waste.

"Critical species" means all animal and plant species listed by the State or federal government as threatened or endangered.

"Cumulative impacts or effects" means the combined, incremental effects of human activity on ecological or critical areas functions and values. Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.

"Danger tree" means a tree that is dead, or is so affected by a significant structural defect or disease that falling or failure appears imminent, or a tree that impedes safe vision or traffic flow, or that otherwise currently poses a threat to life or property.

Department. Unless otherwise noted, "Department" is defined as the City of Bremerton Department of Community Development.

"Developable area" means a site or portion of a site that may be utilized as the location of development, in accordance with the rules of this title.

"Development" means any activity upon the land consisting of construction or alteration of structures, earth movement, dredging, dumping, grading, filling, mining, removal of any sand, gravel, or minerals, driving of piles, drilling operations, bulkheading, clearing of vegetation, or other land disturbance. Development includes the storage or use of equipment or materials inconsistent with the existing use. Development also includes approvals issued by the City that binds land to specific patterns of use including, but not limited to, subdivisions, short subdivisions, zone changes, conditional use permits, and binding site plans. Development activity does not include the following activities:

- A. Interior building improvements.
- B. Exterior structure maintenance activities, including painting and roofing.
- C. Routine landscape maintenance of established, ornamental landscaping, such as lawn mowing, pruning, and weeding.
- D. Maintenance of the following existing facilities that does not expand the affected area: septic tanks (routine cleaning); wells; individual utility service connections; and individual cemetery plots in established and approved cemeteries.

"Development permit" means any permit issued by the City, or other authorized agency, for construction, land use, or the alteration of land.

"Director" means the Director of the Bremerton Department of Community Development or other responsible official, or other City staff granted the authority to act on behalf of the Director.

"Elevated building" means a building that has no basement and its lowest elevated floor is raised above-ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

"Emergent wetland" means a wetland with at least thirty (30) percent of the surface area covered by erect, rooted, herbaceous vegetation extending above the water surface as the uppermost vegetative strata.

"Erosion" means the process whereby wind, rain, water, and other natural agents mobilize and transport particles.

"Exotic" means any species of plants or animals which are foreign to the planning area.

"Fish and wildlife habitat conservation areas" means areas necessary for maintaining 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 as designated by WAC ~~365-190-080365-190-130(5)~~. These areas include:

- A. Areas with which State or federally designated endangered, threatened, and sensitive species have a primary association;
- B. ~~Priority habitat species and s~~Species or habitat of local importance; ~~including, but not limited to, areas designated as priority habitat by the Washington Department of Fish and Wildlife;~~
- C. Streams and watercourses used by juvenile salmonids, and habitat of species essential to the juvenile salmonid diet;
- D. Commercial and recreational shellfish areas;
- E. Kelp, eelgrass beds, herring, smelt, and sandlance, and other forage fish spawning habitat;
- ~~F. Herring and smelt spawning areas;~~
- ~~GF.~~ Naturally occurring ponds under twenty (20) acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds;
- ~~HG.~~ Waters of the State, including 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;
- ~~H.~~ Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- ~~J.~~ State natural area preserves and natural resource conservation areas; and
- ~~K.~~ Land essential for preserving connections between habitat blocks and open spaces.

"Fish habitat" means habitat that is used by fish at any life stage at any time of the year, including potential habitat likely to be used by fish that could be recovered by restoration or management and includes off-channel habitat.

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

"Flood insurance map" means the official map on which the Federal Insurance Administration has delineated the areas of special flood hazards and includes the risk premium zones applicable to the community. Also known as "flood insurance rate map" or "FIRM."

"Flood insurance study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

"Floodplain" means the total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

"Flood protection elevation" means the elevation that is one (1) foot above the base flood elevation.

"Flood-resistant material" means materials designed to be resistant to the impacts associated with flooding and defined and described in detail in the Federal Emergency Management Agency's Technical Bulletin No. 2-93, 1993, and FEMA publication FEMA-348, Protecting Building Utilities from Flood Damage.

"Floodway" means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one (1) foot. Also known as the "zero rise floodway."

"Forested wetland" means a wetland with at least thirty (30) percent of the surface area covered by woody vegetation greater than twenty (20) feet in height that is at least partially rooted within the wetland.

"Formation" means an assemblage of earth materials grouped together into a unit that is convenient for description or mapping.

"Formation, confining" means the relatively impermeable formation immediately overlying a confined aquifer.

"Frequently flooded areas" means lands in the floodplain subject to a one (1) percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, and attenuation functions, as determined by the Director in accordance with WAC [365-190-080](#)(3). Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. Classifications of frequently flooded areas include, at a minimum, the one hundred (100) year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program. "Functions and values" means the beneficial roles served by critical areas including, but not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance and attenuation; groundwater recharge and discharge; erosion control; wave attenuation; protection from hazards; historical, archaeological, and aesthetic value protection; educational opportunities; and recreation. These beneficial roles are not listed in order of priority. Critical area functions can be used to help set targets (species composition, structure, etc.) for managed areas, including mitigation sites.

"Geologically hazardous areas" means areas that may not be suited to development consistent with public health, safety, or environmental standards, because of their steep slopes, susceptibility to erosion, sliding, earthquakes, or other geological events. For the purposes of this code, "geologically hazardous areas" are those areas receiving high or moderate geologically hazardous classifications per BMC [20.14.600](#) through [20.14.660](#).

"Groundwater" means water in a saturated zone or stratum beneath the surface of land or a surface water body.

"Groundwater management area" means a specific geographic area or subarea designated pursuant to Chapter [173-100](#) WAC for which a groundwater management program is required.

"Groundwater management program" means a comprehensive program designed to protect groundwater quality, to ensure groundwater quantity, and to provide for efficient management of water resources while recognizing existing groundwater rights and meeting future needs consistent with local and State objectives, policies, and authorities within a designated groundwater management area or subarea and developed pursuant to Chapter [173-100](#) WAC.

"Groundwater, perched" means groundwater in a saturated zone, separated from the underlying main body of groundwater by an unsaturated rock zone.

"Grading" means excavating, filling or embanking of earth materials in quantities equal to or greater than fifty (50) cubic yards, as specified per the Bremerton Municipal Code grading permit requirement.

"Grubbing" means the removal of vegetative matter from underground, such as sod, stumps, roots, buried logs or other debris, and shall include the incidental removal of topsoil and earth in quantities lesser than fifty (50) cubic yards.

"Habitat conservation areas" means areas designated as fish and wildlife habitat conservation areas.

"Habitat management plan (HMP)" means a report prepared by a professional wildlife biologist or fisheries biologist which discusses and evaluates critical fish and wildlife habitat functions and evaluates the measures necessary to maintain, enhance and improve habitat conservation on a proposed development site.

Habitats of Local Importance. These areas include a seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, taluses, and wetlands. (WAC [365-190-030](#)).

"Hazard areas" means areas designated as frequently flooded areas or geologically hazardous areas due to potential for erosion, landslide, seismic activity, mine collapse, or other geological condition.

"Hazardous substances" means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC [173-303-090](#) or [173-303-100](#).

"High-intensity land use" means land uses which are associated with high levels of human disturbance or substantial habitat impacts including, but not limited to, medium- and high-density residential (more than one (1) home per five (5) acres), multifamily residential, some agricultural practices, and commercial and industrial land uses.

"High quality wetlands" means those wetlands that meet the following criteria:

- A. No, or isolated, human alteration of the wetland topography;
- B. No human-caused alteration of the hydrology or the wetland appears to have recovered from the alteration;
- C. Low cover and frequency of exotic plant species;
- D. Relatively little human-related disturbance of the native vegetation, or recovery from past disturbance;
- E. If the wetland system is degraded, it still contains a viable and high quality example of a native wetland community; and
- F. No known major water quality problems.

"Historic condition" means a condition of the land, including flora, fauna, soil, topography, and hydrology that existed before the area and vicinity were developed or altered by human activity.

"Hydraulic project approval (HPA)" means a permit issued by the Washington Department of Fish and Wildlife for modifications to waters of the State in accordance with Chapter [75.20](#) RCW.

"Hydric soil" means a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined following the methods described in the [approved federal wetland delineation manual and applicable regional supplements. ~~Washington State Wetland Identification and Delineation Manual.~~](#)

"Hydrologic soil groups" means soils grouped according to their runoff-producing characteristics under similar storm and cover conditions. Properties that influence runoff potential are depth to seasonally high water table, intake rate and permeability after prolonged wetting, and depth to a low permeable layer. Hydrologic soil groups are normally used in equations that estimate runoff from rainfall, but can be used to estimate a rate of water transmission in soil. There are four (4) hydrologic soil groups:

- A. Low runoff potential and a high rate of infiltration potential;
- B. Moderate infiltration potential and a moderate rate of runoff potential;
- C. Slow infiltration potential and a moderate-to-high rate of runoff potential; and
- D. High runoff potential and very slow infiltration and water transmission rates.

"Hydrophytic vegetation" means macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the [approved federal wetland delineation manual and applicable regional supplements. ~~Washington State Wetland Identification and Delineation Manual.~~](#)

"Hyporheic zone" means the saturated zone located beneath and adjacent to streams that contains some portion of surface waters, serves as a filter for nutrients, and maintains water quality.

"Impervious surface" means any material which reduces or prevents absorption of stormwater into previously undeveloped land. Permeable paving technologies shall not be classified as impervious surfaces. (See also "Paved surface" in BMC [20.42.040](#) for a discussion of impervious pavements.)

"In-kind compensation" means to replace critical areas with substitute areas whose characteristics and functions closely approximate those destroyed or degraded by a regulated activity. It does not mean replacement "in category."

"Infiltration" means the downward entry of water into the immediate surface of soil.

"Injection well(s)" means:

A. Class I. A well used to inject industrial, commercial, or municipal waste fluids beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water.

B. Class II. A well used to inject fluids:

1. Brought to the surface in connection with conventional oil or natural gas exploration or production and may be commingled with wastewaters from gas plants that are an integral part of production operations, unless those waters are classified as dangerous wastes at the time of injection;
2. For enhanced recovery of oil or natural gas; or
3. For storage of hydrocarbons that are liquid at standard temperature and pressure.

C. Class III. A well used for extraction of minerals, including but not limited to the injection of fluids for:

1. In-situ production of uranium or other metals that have not been conventionally mined;
2. Mining of sulfur by Frasch process; or
3. Solution mining of salts or potash.

D. Class IV. A well used to inject dangerous or radioactive waste fluids.

E. Class V. All injection wells not included in Classes I, II, III, or IV.

"Invasive" means a vegetative or animal species not native to a region, and marked by a tendency to spread, especially with proclivity to replace healthy native species.

"Isolated wetlands" means those wetlands that are outside of and not contiguous to any one hundred (100) year floodplain of a lake, river, or stream and have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water.

"Joint aquatic resource permits application" means a single application form that may be used to apply for hydraulic project approvals, shoreline management permits, approvals of exceedance of water quality standards, water quality certifications, coast guard bridge permits, Washington State Department of Natural Resources use authorization, and U.S. Army Corps of Engineers permits.

Land Use, High-Intensity. See "High-intensity land use."

Land Use, Low-Intensity. See "Low-intensity land use."

Land Use, Moderate-Intensity. See "Moderate-intensity land use."

"Low-impact development (LID)" is a stormwater management and development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic predevelopment hydrologic functions.

"Low-intensity land use" means land uses which are associated with low levels of human disturbance or low habitat impacts, including, but not limited to, passive recreation, open space, or forest management land uses.

"Lowest floor" means the lowest floor of the lowest enclosed area, including the basement. An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, which is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable requirements of this title.

"Mine hazard areas" means areas that are underlain by, adjacent to, or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Factors that should be considered include: proximity to development, depth from ground surface to the mine working, and geologic material.

"Mitigation" means avoiding, minimizing, or compensating for adverse critical areas impacts. "Mitigation," in the following sequential order of preference, is:

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, such as project redesign, relocation, or timing, to avoid or reduce impacts;

- C. Rectifying the impact to wetlands, critical aquifer recharge areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project;
- D. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods, provided the engineered method creates the minimum disturbance necessary to mitigate the action, and the method does not adversely impact categories of critical areas other than those being mitigated;
- E. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- F. Compensating for the impact to wetlands, critical aquifer recharge areas, and habitat conservation areas by replacing, enhancing, or providing substitute resources or environments; and
- G. Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Mitigation for individual actions may include a combination of the above measures.

"Mobile home" means a structure, transportable in one (1) 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 "mobile home" does not include a "recreational vehicle."

"Mobile home park or subdivision" means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

"Moderate-intensity land use" means land uses which are associated with moderate levels of human disturbance or substantial habitat impacts including, but not limited to, low density residential (no more than one (1) home per five (5) acres), active recreation, and moderate agricultural land uses.

"Monitoring" means evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems, and assessing the performance of required mitigation measures throughout the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features, including gathering baseline data.

"Native growth protection area (NGPA)" means an area where native vegetation is preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants and animal habitat.

"Native vegetation" means plant species that are indigenous to the area in question.

"Natural waters" means waters, excluding water conveyance systems that are artificially constructed and actively maintained for irrigation.

Nonconformity. See BMC [20.54.040](#), Definitions, of the nonconforming provisions of this title.

"Off-site compensation" means to replace critical areas away from the site on which a critical area has been impacted.

"On-site compensation" means to replace critical areas at or adjacent to the site on which a critical area has been impacted.

"Ordinary high water mark (OHM)" means that mark which is 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, that the soil has a character distinct from that of the abutting upland in respect to vegetation.

"Out-of-kind compensation" means to replace critical areas with substitute critical areas whose characteristics do not closely approximate those destroyed or degraded. It does not refer to replacement "out-of-category."

"Permeability" means the capacity of an aquifer or confining bed to transmit water. It is a property of the aquifer or confining bed and is independent of the force causing movement.

"Porous soil types" means soils, as identified by the National Resources Conservation Service, U.S. Department of Agriculture, that contain voids, pores, interstices, or other openings which allow the passing of water.

"Potable water" means water that is safe and palatable for human use.

"Practical alternative" means an alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes, and has less impacts to critical areas.

"Primary association area" means the area used on a regular basis by, is in close association with, or is necessary for the proper functioning of the habitat of a critical species. "Regular basis" means that the habitat area is normally, or usually, known to contain a critical species, or based on known habitat requirements of the species, the area is likely to contain the critical species. "Regular basis" is species and population dependent. Species that exist in low numbers may be present infrequently yet rely on certain habitat types.

"Priority habitat" means habitat type or elements with unique or significant value to one (1) or more species as classified by the State Department of Fish and Wildlife. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element.

"Project area" means all areas within fifty (50) feet of the area proposed to be disturbed, altered, or used by the proposed activity or the construction of any proposed structures. When the action binds the land, such as a subdivision, short subdivision, binding site plan, planned unit development, or rezone, the project area shall include the entire parcel, at a minimum.

"Qualified professional" means a person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant critical area subject in accordance with WAC [365-195-905\(4\)](#). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology, or related field, and five (5) years of related work experience.

A. A qualified professional for habitats or wetlands must have a degree in biology and professional experience related to the subject species, and meet the requirements set forth in BMC [20.14.360](#).

B. A qualified professional for a geological hazard must be a professional civil or geotechnical engineer with experience in the field, or geologist, licensed in the State of Washington.

C. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments, and meets the requirements set forth in BMC [20.14.450](#).

"Recharge" means the process involved in the absorption and addition of water to groundwater.

"Reclaimed water" means municipal wastewater effluent that has been adequately and reliably treated so that it is suitable for beneficial use. Following treatment, it is no longer considered wastewater (treatment levels and water quality requirements are given in the water reclamation and reuse standards adopted by the State Departments of Ecology and Health).

Recreation Vehicle. See definition in Chapter [20.42](#) BMC.

"Repair" or "maintenance" means an activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.

"Restoration" means measures taken to restore an altered or damaged natural feature including:

A. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and

B. Actions performed to reestablish structural and functional characteristics of the critical area that have been lost by alteration, past management activities, or catastrophic events.

"Riparian habitat" means areas adjacent to aquatic systems with flowing water that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects,

or habitat for riparian-associated wildlife. Widths shall be measured from the ordinary high water mark or from the top of bank if the ordinary high water mark cannot be identified or from the channel migration zone (CMZ). It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions as well as adjacent upland plant communities that directly influence the stream system. Riparian habitat areas include those riparian areas severely altered or damaged due to human development activities.

"Scientific process" means a valid scientific process is one (1) that produces reliable information useful in understanding the consequences of a decision. The characteristics of a valid scientific process are as follows:

- A. Peer Review. The information has been critically reviewed by other qualified scientific experts in that scientific discipline.
- B. Methods. The methods that were used are standardized in the pertinent scientific discipline or the methods have been appropriately peer-reviewed to ensure their reliability and validity.
- C. Logical Conclusions and Reasonable Inferences. The conclusions presented are based on reasonable assumptions supported by other studies and are logically and reasonably derived from the assumptions and supported by the data presented.
- D. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods.
- E. Context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.
- F. References. The assumptions, techniques, and conclusions are well referenced with citations to pertinent existing information.

"Scrub-shrub wetland" means a wetland with at least thirty (30) percent of its surface area covered by woody vegetation less than twenty (20) feet in height as the uppermost strata.

"Section 404 permit" means a permit issued by the U.S. Army Corps of Engineers for the placement of dredge or fill material or clearing in waters of the United States, including wetlands, in accordance with [33 USC Section 1344](#). Section 404 permits may also be for endangered species consultation. They require a consultation under Section 7 of the Federal Endangered Species Act.

"Seeps" means a spot where water oozes from the earth, often forming the source of a small stream.

"Seismic hazard areas" means areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

"Shorelines" means all of the water areas of the State as defined in RCW [90.58.030](#), including reservoirs and their associated shorelands, together with the lands underlying them except:

- A. Shorelines of statewide significance;
- B. Shorelines on segments of streams upstream of a point where the mean annual flow is twenty (20) cubic feet per second (20 cfs) or less and the wetlands associated with such upstream segments; and
- C. Shorelines on lakes less than twenty (20) acres in size and wetlands associated with such small lakes.

"Shorelines of the State" means the total of all "shorelines," as defined in RCW [90.58.030](#)(2)(d), and "shorelines of statewide significance" within the State, as defined in RCW [90.58.030](#)(2)(c).

"Shorelines of statewide significance" means those areas defined in RCW [90.58.030](#)(2)(e).

"Shorelands or shoreland areas" means those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred (200) feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of Chapter [90.58](#) RCW.

"Soil survey" means the most recent soil survey for the local area or county by the National Resources Conservation Service, U.S. Department of Agriculture.

"Special flood hazard areas" means the land in the floodplain within an area subject to a one (1) percent or greater chance of flooding in any given year. Designations of special flood hazard areas on flood insurance map(s) always include the letters A or V.

"Special protection areas" means aquifer recharge areas defined by WAC [173-200-090](#) that require special consideration or increased protection because of unique characteristics, including, but not limited to:

- A. Groundwaters that support an ecological system requiring more stringent criteria than drinking water standards;
- B. Groundwater recharge areas and wellhead protection areas that are vulnerable to pollution because of hydrogeologic characteristics; and
- C. Sole source aquifer status.

"Species" means any group of animals classified as a species or subspecies as commonly accepted by the scientific community.

"Species, endangered" means any fish or wildlife species that is threatened with extinction throughout all or a significant portion of its range and is listed by the State or federal government as an endangered species.

"Species of local importance" means those species of local concern due to their population status or their sensitivity to habitat manipulation, or that are game species.

"Species, priority" means any fish or wildlife species requiring protective measures and/or management guidelines to ensure their persistence as genetically viable population levels as classified by the Washington Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate and monitor species, and those of recreational, commercial, or tribal importance.

"Species, threatened" means any fish or wildlife species that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range without cooperative management or removal of threats, and is listed by the State or federal government as a threatened species.

"Subdrainage basin" or "subbasin" means the drainage area of the highest order stream containing the subject property impact area. "Stream order" is the term used to define the position of a stream in the hierarchy of tributaries in the watershed. The smallest streams are the highest order (first order) tributaries. These are the upper watershed streams and have no tributaries of their own. When two (2) first order streams meet, they form a second order stream, and when two (2) second order streams meet they become a third order stream, and so on.

"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 fifty (50) percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either before the improvement or repair is started, or if the structure has been damaged and is being restored, before the damage occurred.

"Unavoidable" means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

"Vulnerability" means the combined effect of susceptibility to contamination and the presence of potential contaminants.

"Water-dependent" means a use or portion of a use that 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. A use that can be carried out only on, in, or adjacent to water. Examples of water-dependent uses include: ship cargo terminal loading areas; fishing; ferry and passenger terminals; barge loading, ship building, and dry docking facilities; marinas, moorage, and boat launching facilities; aquaculture; float plane operations; surface water intake; and sanitary sewer and storm drain outfalls.

"Water resource inventory area (WRIA)" means one (1) of sixty-two (62) watersheds in the State of Washington, each composed of the drainage areas of a stream or streams, as established in Chapter [173-500](#) WAC as it existed on January 1, 1997.

"Water table" means that surface in an unconfined aquifer at which the pressure is atmospheric. It is defined by the levels at which water stands in wells that penetrate the aquifer just far enough to hold standing water.

"Water typing system" means waters are classified according to WAC [222-16-031](#). Waters are classified into four (4) types, S, F, Np, and Ns, based on whether the waters are shorelines of the State, their level of human and wildlife use, whether they are perennial streams, and other characteristics. Complete criteria for the water typing system are found in BMC [20.14.720](#).

"Watercourse" means any portion of a channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the State including areas in which fish may spawn, reside, or through which they may pass, and tributary waters with defined beds or banks, which influence the quality of fish habitat downstream. This definition includes watercourses that flow on an intermittent basis or which fluctuate in level during the year and applies to the entire bed of such watercourse whether or not the water is at peak level. This definition does not include irrigation ditches, canals, stormwater runoff devices, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

"Well" means a bored, drilled, or driven shaft, or a dug hole whose depth is greater than the largest surface dimension for the purpose of withdrawing or injecting water or other liquids.

"Wellhead protection area (WHPA)" means the portion of a zone of contribution for a well, wellfield, or spring, as defined using criteria established by the Washington State Department of Ecology.

~~"Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation 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. For identifying and delineating a wetland, local government shall use the Washington State Wetland Identification and Delineation Manual.~~

"Wetlands" means areas that are inundated or saturated by surface water or groundwater 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 non-wetland 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 include artificial wetlands created from non-wetland areas to mitigate the conversion of wetlands. 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. Wetland delineations are valid for five years; after such date, the City shall determine whether a revision or additional assessment is necessary.

"Wetland classes," "classes of wetlands," or "wetland types" means the descriptive classes of the wetlands taxonomic classification system of the U.S. Fish and Wildlife Service (Cowardin, et al., 1979).

"Wetland edge" means the boundary of a wetland as delineated based on the definitions contained in this title.

"Wetlands mitigation bank" means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

"Zone of contribution" means the area surrounding a well or spring that encompasses all areas or features that supply groundwater recharge to the well or spring.

20.14.300 WETLANDS.

BMC [20.14.310](#) through [20.14.360](#) pertain to wetlands.

20.14.310 DESCRIPTION AND PURPOSE.

(a) ~~As identified currently in WAC 173-22-035 and as subsequently amended, identification of wetlands and delineation of their boundaries shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements. Wetlands are those areas, designated in accordance with the "Washington State Wetland Identification and Delineation Manual" (1997), that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions.~~ All areas within the City meeting the wetland designation criteria in the identification and delineation manual, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this title.

(b) Wetlands help to maintain water quality; store and convey stormwater and floodwater; recharge groundwater; provide important fish and wildlife habitat; and serve as areas for recreation, education, scientific study and aesthetic appreciation.

(c) The City's overall goal shall be to achieve no net loss of wetlands. This goal shall be implemented through retention of the function and value 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.

(d) The primary purpose of the wetland regulations is to avoid detrimental wetland impacts and achieve a goal of no net loss of wetland function and values, and where possible enhance and restore wetlands.

20.14.320 CLASSIFICATION AND DESIGNATION.

(a) Wetland Ratings. Wetlands shall be rated according to the Washington State Department of Ecology wetland rating system found in the "Washington State Wetland Rating System for Western Washington" (Department of Ecology Publication No. ~~04-06-025014-06-029~~) or as amended hereafter. These documents contain the definitions and methods for determining if the criteria below are met.

(1) Wetland Rating Categories.

(i) Category I. Category I wetlands are those that meet any of the following criteria:

- a. Represent a unique or rare wetland type; or
- b. Are more sensitive to disturbance than most wetlands; or
- c. Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or
- d. Are providing a high level of functions, ~~scoring twenty-three points or more, out of twenty-seven (27) (DOE Wetlands Rating System, 2014); , scoring seventy (70) points or more out of one hundred (100) (DOE Wetlands Rating System, 2004);~~ or
- e. Are characterized as Wetlands of High Conservation Value per the Washington Natural Heritage Program (WNHP)-a national heritage wetland; or
- f. Are characterized as a bog; or

- g. Are over one (1) acre and characterized as a mature and old-growth forested wetland or are an estuarine.
 - (ii) Category II. Category II wetlands are those wetlands that are not Category I wetlands and that meet any of the following criteria:
 - a. Provide high levels of some functions, being difficult, though not impossible to replace; or
 - b. Perform most functions relatively well, scoring twenty (20) to twenty-two (22) points out of twenty-seven (27) (DOE Wetlands Rating System, 2014). ~~fifty-one (51) through sixty-nine (69) out of one hundred (100) points (DOE Wetlands Rating System, 2004);~~ or
 - c. Estuarine wetlands smaller than one (1) acre or those that are distributed and larger than 1 acre.-
 - (iii) Category III. Category III wetlands are those wetlands that are not Category I or II wetlands, and that meet the following criterion:
 - a. Provide moderate levels of functions, scoring between sixteen (16) and nineteen (19) points out of twenty-seven (27) (DOE Wetland Rating System, 2014). ~~thirty (30) through fifty (50) out of one hundred (100) points (DOE Wetlands Rating System, 2004).~~
 - (iv) Category IV. Category IV wetlands are those that meet the following criterion:
 - a. Provide low levels of functions, scoring less than sixteen (16) points out of twenty-seven (27) (DOE Wetlands Rating System, 2014) ~~thirty (30) out of one hundred (100) points (DOE Wetlands Rating System, 2004).~~
- (2) Date of Wetland Rating. Wetland rating categories shall be applied as the wetland exists on the date of adoption of the rating system by the local government as the wetland naturally changes thereafter, or as the wetland changes in accordance with permitted activities. Wetland rating categories shall not change due to illegal modifications.

20.14.330 DEVELOPMENT STANDARDS - WETLANDS.

- (a) Activities may only be permitted in a wetland or wetland buffer if the applicant can show that the proposed activity will not degrade the functions and functional performance of the wetland and other critical areas.
- (b) Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided for in this title. The following activities are regulated if they occur in a regulated wetland or its buffer:
 - (1) The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind.
 - (2) The dumping of, discharging of, or filling with any material.
 - (3) The draining, flooding, or disturbing of the water level or water table.
 - (4) Pile driving.
 - (5) The placing of obstructions.
 - (6) The construction, reconstruction, demolition, or expansion of any structure.
 - (7) 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.
 - (8) “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.
 - (9) Activities that result in:
 - (i) A significant change of water temperature.
 - (ii) A significant change of physical or chemical characteristics of the sources of water to the wetland.
 - (iii) A significant change in the quantity, timing, or duration of the water entering the wetland.
 - (iv) The introduction of pollutants.

(c) 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:

(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) 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.

(3) Enhancement of a wetland through the removal of non-native 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.

(4) Educational and scientific research activities.

~~(d) Category I Wetlands. Activities and uses shall be prohibited from Category I, except as provided for in the public agency and utility exception, reasonable use exception, and variance sections of this title.~~

~~(e)~~ Category II and III Wetlands. With respect to activities proposed in Category II and III wetlands, the following standards shall apply:

(1) Water-dependent activities may be allowed where there are no feasible alternatives that would have a less adverse impact on the wetland, its buffers and other critical areas.

(2) Where nonwater-dependent activities are proposed, it shall be presumed that alternative locations are available, and activities and uses shall be prohibited, unless the applicant demonstrates that:

(i) The basic project purpose cannot reasonably be accomplished and successfully avoid, or result in less adverse impact on, a wetland on another site or sites in the general region; and

(ii) All alternative designs of the project as proposed that would avoid or result in less of an adverse impact on a wetland or its buffer, such as a reduction in the size, scope, configuration, or density of the project, are not feasible.

(iii) Full compensation for the acreage and loss functions will be provided under the terms established under BMC [20.14.340](#)(f) and (g).

(f) Category III and IV Wetlands. Isolated Category III and IV wetlands less than 1,000 square feet that meet all of the following criteria shall be exempt from the buffer provisions in BMC 20.14.330(g) and the normal mitigation sequencing process in BMC 20.14.340(a). Any direct impacts to these wetlands shall be fully mitigated.

(1) Is not associated with riparian areas or buffers,

(2) Is not part of a wetland mosaic, and

(3) Does not contain habitat identified by Washington State Department of Fish and Wildlife as essential for local populations of priority species, as identified under BMC 20.14.720.

(g) Category IV Wetlands. Activities and uses that result in unavoidable and necessary impacts may be permitted in Category IV wetlands and associated buffers in accordance with an approved wetland report and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives. Full compensation for the acreage and loss functions will be provided under the terms established under BMC [20.14.340](#)(f) and (g).

(h) Wetland Buffers.

(1) Standard Buffer Widths. The standard buffer widths presume the existence of a relatively intact native vegetation community in the buffer zone adequate to protect the wetland functions and values at the time of the proposed activity. If the vegetation is inadequate, then the buffer width shall be increased or the buffer should be planted to maintain the standard width. Required standard wetland buffers, based on wetland category, are as outlined in the following table. In the

table the wetland buffers vary according to the wetland type and/or habitat score (on a range of 3 to 9, with 9 representing high habitat function).

Wetland Category	Standard Buffer
I	200 ft.
II	100 ft.
III	75 ft.
IV	50 ft.

Wetland Category and Type	Buffer width (in feet) based on habitat score			
	3-4 (Low)	5 (Medium)	6-7 (Medium)	8-9 (High)
I: Estuarine wetlands	200			
I: All others	100	140	220	300
II: Estuarine wetlands	150			
II: All	100	140	220	300
III: All	80	140	220	300
IV: All	50			

(2) Measurement of Wetland Buffers. All buffers shall be measured horizontally from a perpendicular line established at the wetland edge as surveyed in the field. The width of the wetland buffer shall be determined according to the wetland category. 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.

(3) Reducing Wetland Buffer Widths. For those projects that can mitigate the impacts and disturbances associated with surrounding land use, required wetland buffer widths may be reduced. The following table list impact-minimization measures which, when implemented where applicable, may allow a project to reduce the standard wetland buffer widths up to a total of twenty-five (25) percent).

Disturbance	Required Measures to Minimize Impacts
<u>Lights</u>	(1) <u>Direct lights away from wetland as illustrated in a photometric plan.</u>
<u>Noise</u>	(2) <u>Locate activity that generates noise away from wetland.</u> (3) <u>If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source</u> (4) <u>For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional ten (10) feet of heavily vegetated buffer strip immediately adjacent to the outer wetland buffer</u>
<u>Toxic runoff</u>	(5) <u>Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</u> (6) <u>Establish covenants limiting use of pesticides within 150 feet of wetland</u>
<u>Stormwater runoff</u>	(7) <u>Retrofit stormwater detention and treatment for roads and existing adjacent development</u> (8) <u>Prevent channelized flow from lawns that directly enters the buffer</u>

	<u>(9) Use Low Intensity Development Best Management Practices where appropriate</u>
<u>Change in water regime</u>	<u>(10) Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns</u>
<u>Pets and human disturbance</u>	<u>(11) Use privacy fencing or plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion</u> <u>(12) Place wetland and its buffer in a separate tract or protect with a conservation easement</u>
<u>Dust</u>	<u>(13) Use best management practices to control dust</u>
<u>Disruption of corridors or connections</u>	<u>(14) Maintain connections to offsite areas that are undisturbed</u> <u>(15) Restore onsite corridors or connections to offsite habitats by replanting</u>

(34) Increased Wetland Buffer Widths. The Director shall require increased buffer widths in accordance with the recommendations of an experienced, qualified professional wetland scientist, and the best available science on a case-by-case basis when a larger buffer is necessary to protect wetland functions and values based on site-specific characteristics. This determination shall be based on one (1) or more of the following criteria:

- (i) A larger buffer is needed to protect other critical areas;
- (ii) The buffer or adjacent uplands has a slope greater than fifteen (15) percent or is susceptible to erosion and standard erosion-control measures will not prevent adverse impacts to the wetland; or
- (iii) The buffer area has minimal vegetative cover. In lieu of increasing the buffer width where existing buffer vegetation is inadequate to protect the wetland functions and values, implementation of a buffer planting plan may substitute. Where a buffer planting plan is proposed, it shall include densities that are not less than three (3) feet on center for shrubs and eight (8) feet on center for trees and require monitoring and maintenance to ensure success. Existing buffer vegetation is considered "inadequate" and will need to be enhanced through additional native plantings and (if appropriate) removal of nonnative plants when: (1) nonnative or invasive plant species provide the dominant cover, (2) vegetation is lacking due to disturbance and wetland resources could be adversely affected, or (3) enhancement plantings in the buffer could significantly improve buffer functions.

(45) Wetland Buffer Width Averaging. The Director may allow modification of the standard wetland buffer width in accordance with an approved wetland report and the best available science on a case-by-case basis by averaging buffer widths. Averaging of buffer widths may only be allowed where the applicant and a qualified professional wetland scientist demonstrates that:

- (i) No feasible site design exists without buffer averaging;
- (ii) It will not reduce wetland functions or functional performance;
- (iii) The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;
- (iv) The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer; and
- (v) The buffer width is not reduced to less than seventy-five (75) percent of the standard width or thirty-five (35) feet.

(56) Buffer Consistency. All mitigation sites shall have buffers consistent with the buffer requirements of this chapter.

(67) Buffer Maintenance. Except as otherwise specified or allowed in accordance with this title, wetland buffers shall be retained in an undisturbed or enhanced condition. Removal of invasive nonnative weeds is required for the duration of the mitigation bond.

(78) Buffer Uses. The following uses may be permitted within a wetland buffer in accordance with the review procedures of this title, 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. Low-impact uses and activities which are consistent with the purpose and function of the wetland buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the wetland. Uses may include:

a. Walkways and trails; provided, that those pathways that are generally parallel to the perimeter of the wetland may be located in the buffer area; provided, that:

i. They are no wider than six (6) feet, and generally constructed with a surface that does not interfere with substrate permeability. Raised boardwalks utilizing nontreated pilings may be acceptable; and

ii. They shall be limited to pedestrian use; and

iii. They shall not be allowed to fully enclose a habitat area or buffer; and

iv. They are subject to closure (at the Director's discretion) during critical spawning, migration or breeding time periods of the species present;

b. Wildlife viewing structures; and

c. Fishing access areas down to the water's edge that shall be no larger than six (6) feet.

(iii) Stormwater Management Facilities. Stormwater management facilities, limited to stormwater dispersion outfalls and bioswales, may be allowed within the outer twenty-five (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.

(iv) Low-Impact Development (LID) Facilities. LID facilities may be allowed within 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.

(i9) Signs and Fencing of Wetlands.

(1) Temporary Markers. The outer perimeter of the wetland or buffer and the limits of those areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field in such a way as to ensure that no unauthorized intrusion will occur and is subject to inspection 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.

(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.

(i) 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 (1) per lot or every fifty (50) feet, whichever is less, and must be maintained by the property owner in perpetuity. The sign shall be worded as follows or with alternative language approved by the Director:

Protected Wetland Area
Do Not Disturb
Contact City of Bremerton

Department of Community Development
Regarding Uses and Restriction

- (3) Fencing.
- (i) The Director shall determine if fencing is necessary to protect the functions and values of the critical area. If found to be necessary, any permit or authorization issued pursuant to this chapter shall be conditioned to require the applicant to install a permanent fence at the edge of the wetland buffer when fencing will prevent future impacts to the wetland.
 - (ii) 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.

20.14.340 MITIGATION REQUIREMENTS - WETLANDS.

Compensatory mitigation for alterations to wetlands shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with the State Department of Ecology publication "Guidance on Wetland Mitigation in Washington State," [2004-2006](#) (Publication Nos. [0406-06-013a-011a](#) and [0406-06-013b-011b](#)), or as revised.

- (a) Mitigation shall be required in the following order of preference:
- (1) Avoiding the impact altogether by not taking a certain action or parts of an action.
 - (2) 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.
 - (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
 - (4) Reducing or eliminating the impact over time by preservation and maintenance operations.
 - (5) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.
- (b) Mitigation for Lost or Affected Functions. Compensatory mitigation actions shall address functions affected by the alteration to achieve functional equivalency or improvement and shall provide similar wetland functions as those lost, except when:
- (1) The lost wetland provides minimal functions as determined by a site-specific function assessment, 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
 - (2) Out-of-kind replacement will best meet formally identified watershed goals, such as replacement of historically diminished wetland types.
- (c) Preference of Mitigation Actions. Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference:
- (1) Restoring wetlands on upland sites that were formerly wetlands.
 - (2) Creating wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of nonnative introduced species. This should only be attempted when there is a consistent source of hydrology and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is being designed.
 - (3) Enhancing significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area meeting appropriate ratio requirements.
- (d) Type and Location of Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternate approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same stream reach, subbasin, or drift cell. Mitigation actions shall be conducted within the same subdrainage basin and on the site as the alteration except when all of the following apply:

- (1) There are no reasonable on-site or in-subdrainage basin opportunities or on-site and in-subdrainage basin opportunities do not have a high likelihood of success, after a determination of the natural capacity of the site to mitigate for the impacts. Consideration should include: anticipated wetland mitigation replacement ratios, buffer conditions and proposed widths, hydrogeomorphic classes of on-site wetlands when restored, proposed flood storage capacity, 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; and
 - (3) Off-site locations shall be in the same subdrainage basin unless:
 - (i) Established watershed goals for water quality, flood or conveyance, habitat, or other wetland functions have been established and strongly justify location of mitigation at another site; or
 - (ii) Credits from a State-certified wetland mitigation bank are used as mitigation and the use of credits is consistent with the terms of the bank's certification.
- (e) **Mitigation Timing.** Mitigation projects shall be completed with an approved monitoring plan prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.
- (1) The Director may authorize a one (1) time temporary delay, up to one hundred twenty (120) days, in completing minor construction and landscaping when environmental conditions could produce a high probability of failure or significant construction difficulties. 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, and 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 mitigation plan. The justification must be verified and approved by the City and include a financial guarantee.
- (f) **Mitigation Ratios.**
- (1) **Acreage Replacement Ratios.** The following ratios shall apply to creation or restoration that is in-kind, is on-site, is the same category, is timed prior to or concurrent with alteration, and has a high probability of success. These ratios do not apply to remedial actions resulting from unauthorized alterations; greater ratios shall apply in those cases. These ratios do not apply to the use of credits from a State-certified wetland mitigation bank. When credits from a certified bank are used, replacement ratios should be consistent with the requirements of the bank's certification. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

Category I	6-to-1			
Category II	3-to-1			
Category III	2-to-1			
Category IV	1.5-to-1			
<u>Wetland Category</u>	<u>Wetland Mitigation Type and Replacement Ratio</u>			
	<u>Creation</u>	<u>Re-establishment</u>	<u>Rehabilitation</u>	<u>Enhancement Only</u>
<u>Category I</u>	<u>6:1</u>	<u>6:1</u>	<u>12:1</u>	<u>Not allowed</u>
<u>Category II</u>	<u>3:1</u>	<u>3:1</u>	<u>6:1</u>	<u>12:1</u>
<u>Category III</u>	<u>2:1</u>	<u>2:1</u>	<u>4:1</u>	<u>8:1</u>
<u>Category IV</u>	<u>1.5:1</u>	<u>1.5:1</u>	<u>3:1</u>	<u>6:1</u>

- (2) Increased Replacement Ratio. The Director may increase the ratios under the following circumstances:
- (i) Uncertainty exists as to the probable success of the proposed restoration or creation;
 - (ii) A significant period of time will elapse between impact and replication of wetland functions;
 - (iii) Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or
 - (iv) The impact was an unauthorized impact.

(g) Wetlands Enhancement as Mitigation.

(1) Impacts to wetland functions may be mitigated by enhancement of existing significantly degraded wetlands, but ~~must~~ where feasible should be used in conjunction with restoration and/or creation. Applicants proposing to enhance wetlands must produce a wetland report that identifies how enhancement will increase the functions of the degraded wetland and how this increase will adequately mitigate for the loss of wetland area and function at the impact site. An enhancement proposal must also show whether existing wetland functions will be reduced by the enhancement actions.

(2) Ratios for rehabilitation and enhancement may be reduced when combined with 1:1 replacement through creation or re-establishment See Table 1a, Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance--Version 1, (Ecology Publication #06-06-011a, Olympia, WA, March 2006 or as revised).

~~(2) At a minimum, enhancement acreage shall be double the acreage required for creation or restoration under subsection (f)(1) of this section. The ratios shall be greater than double the required acreage where the enhancement proposal would result in minimal gain in the performance of wetland functions and/or result in the reduction of other wetland functions currently being provided in the wetland.~~

~~(3) Mitigation ratios for enhancement in combination with other forms of mitigation shall range from 6:1 to 3:1 and be limited to Class III and Class IV wetlands.~~

(h) Mitigation of Wetland Buffer Impacts. Compensation for wetland buffer impacts shall occur at a minimum 1:1 ratio. Compensatory mitigation for buffer impacts shall include enhancement of degraded buffers by planting native species and removing structures and impervious surfaces within buffers.

~~(h)~~ (i) Wetland Mitigation Banks.

(1) Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:

- (i) The bank is certified under Chapter [173-700 WAC](#); and
- (ii) The Director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
- (iii) The proposed use of credits is consistent with the terms and conditions of the bank's certification.

(2) Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

(3) Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, bank service areas may include portions of more than one (1) adjacent drainage basin for specific wetland functions.

~~(i)~~ (j) Wetland Mitigation Monitoring. The mitigation plan shall include a program for monitoring construction of the compensation project and for assessing a completed project. A protocol shall be included outlining the schedule for site monitoring, and how the monitoring data will be evaluated. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a

period necessary to establish that performance standards have been met, but not for a period less than five (5) years.

20.14.350 PERFORMANCE STANDARDS - SUBDIVISIONS.

The subdivision and short subdivision of land in wetlands and associated buffers is subject to the following:

- (a) Land that is located wholly within a wetland or its buffer may not be subdivided.
- (b) 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 located outside of the wetland and its buffer.
- (c) Access roads and utilities serving the proposed subdivision may be permitted within the wetland and associated buffers only if the City determines that no other feasible alternative exists and when consistent with this title.

20.14.360 WETLAND REPORT.

Critical area reports for wetlands must meet the requirements of this section.

- (a) Preparation by a Qualified Professional. A critical area report for wetlands shall be prepared by a qualified professional who is a certified professional wetland scientist or a noncertified professional wetland scientist with a minimum of five (5) years experience in the field of wetland science and with experience preparing wetland reports.
- (b) Area Addressed in Wetland Report. The following areas shall be addressed in a critical area report for wetlands:
 - (1) The project area of the proposed activity;
 - (2) All wetlands and recommended buffers within three hundred (300) feet of the project area; and
 - (3) All shoreline areas, water features, floodplains, and other critical areas, and related buffers within three hundred (300) feet of the project area.
- (c) Wetland Analysis. A critical area report for wetlands shall contain an analysis of the wetlands including the following site- and proposal-related information at a minimum:
 - (1) A written assessment and accompanying maps of the wetlands and buffers within three hundred (300) feet of the project area, including the following information at a minimum:
 - (i) Wetland delineation and required buffers;
 - (ii) Existing wetland acreage;
 - (iii) Wetland category;
 - (iv) Vegetative, faunal, and hydrologic characteristics;
 - (v) Soil and substrate conditions;
 - (vi) Topographic elevations, at two (2) foot contours; and
 - (vii) A discussion of the water sources supplying the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year: drift lines, algal layers, moss lines, and sediment deposits).
 - (2) A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity.
 - (3) A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.
 - (4) Functional evaluation for the wetland and adjacent buffer using a local or State agency staff-recognized method and including the reference of the method and all data sheets.
 - (5) Proposed mitigation, if needed, including a written assessment and accompanying maps of the mitigation area, including the following information at a minimum:

- (i) Existing and proposed wetland acreage;
 - (ii) Vegetative and faunal conditions;
 - (iii) Surface and subsurface hydrologic conditions including an analysis of existing and future hydrologic regime and proposed hydrologic regime for enhanced, created, or restored mitigation areas;
 - (iv) Relationship within watershed and to existing waterbodies;
 - (v) Soil and substrate conditions, and topographic elevations;
 - (vi) Existing and proposed adjacent site conditions;
 - (vii) Required wetland buffers (including any buffer reduction and mitigation proposed to increase the plant densities, remove weedy vegetation, and replant the buffers);
 - (viii) Property ownership; and
 - (ix) Associated wetlands and related wetlands that may be greater than three hundred (300) feet from the subject project.
- (6) A scale map of the development proposal site and adjacent area. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs.
- (7) A bond estimate for the installation (including site preparation, plant materials and installation, fertilizers, mulch, stakes) and the proposed monitoring and maintenance work for the required number of years.
- (8) Title Notification. All activity in critical area protection areas shall be accompanied by a title.
- (d) Additional Information. When appropriate, the Director may also require the wetland report to include an evaluation by the State Department of Ecology or an independent qualified expert regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, and to include any recommendations as appropriate.
- (1) If the development proposal site contains or is within a wetland area, the applicant shall submit an affidavit which declares whether the applicant has knowledge of any illegal alteration to any or all wetlands on the proposed site and whether the applicant previously has been found in violation of this chapter. If the applicant has been found previously in violation, the applicant shall declare whether such violation has been corrected to the satisfaction of the jurisdiction.
 - (2) The Director shall determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the public health, safety, and welfare, consistent with the goals, purposes, objectives and requirements of this chapter.

20.14.400 CRITICAL AQUIFER RECHARGE AREAS.

BMC [20.14.410](#) through [20.14.450](#) pertain to critical aquifer recharge areas.

20.14.410 DESCRIPTION AND PURPOSE.

Groundwater from aquifers provides a source of potable water and contributes to stream discharge/flow. Critical aquifer recharge areas contribute to the recharge of aquifers, springs and/or wells and are susceptible to contamination of water supplies through infiltration of pollutants through the soil. City residents rely on an essential life-sustaining safe drinking water supply. A significant portion of the City's drinking water comes from groundwater supplies in aquifers. The primary goals of groundwater protection regulations are to protect groundwater quality by maintaining the quantity of recharge; avoiding or limiting land use activities that pose potential risk of aquifer contamination; and to minimize or avoid adverse impacts to groundwater protection areas through the application of performance standards, and to comply with the requirements of the Federal Safe Drinking Water Act, Washington Administrative Code, and the requirements of the Wellhead Protection Program.

20.14.420 CLASSIFICATION AND DESIGNATION.

Critical aquifer recharge areas are those land areas that contain hydrogeologic conditions that facilitate aquifer recharge and/or transmission of contaminants to an underlying aquifer. Critical aquifer recharge areas under this section may be established based on general criteria, specifically designated due to special circumstances, or based on scientific studies and mapping efforts. Factors considered in the identification of critical aquifer recharge areas include depth to water table, presence of highly permeable soils (specifically Group A hydrologic soils), presence of flat terrain, and the presence of more permeable surficial geology. Critical aquifer recharge areas may be placed in one (1) of the following categories:

(a) Category I Critical Aquifer Recharge Areas. Category I critical aquifer recharge areas are those areas where potential for certain land use activities to adversely affect groundwater is high. Category I critical aquifer recharge areas include:

- (1) Areas inside the five (5) year time-of-travel zone for Group A water system wells, calculated in accordance with the Washington State Source Water Assessment Program.
- (2) Ten (10) year time-of-travel zones in wellhead protection areas are included as critical aquifer recharge when a well draws its water from an aquifer that is at or above sea level and is without an overlying protective impermeable layer.
- (3) Areas identified as regionally significant aquifer recharge areas and identified as such by the City are:
 - Gorst Basin Aquifer recharge area, and
 - Other areas that may be identified in the future.

(b) Category II Critical Aquifer Recharge Areas. Category II critical aquifer recharge areas are areas that provide recharge to aquifers that are current or potentially will become potable water supplies and are vulnerable to contamination based on the type of land use activity. These include the following:

- (1) Highly Permeable Soils (Group A Hydrologic Soils). The general location and characteristics of Group A hydrologic soils in the City is given in the Soils Survey of Kitsap County by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). The soil survey information is available at the Department of Community Development.
- (2) Areas Above Shallow/Vashon Principal Aquifers. Surface areas above shallow, principal aquifer(s) which are not separated from the underlying aquifers by an impermeable layer that provides adequate protections to preclude the proposed land use from contaminating the shallow aquifer(s) below, are considered aquifer recharge areas of concern.

20.14.430 DEVELOPMENT STANDARDS.

(a) Allowed Activities. The following activities are allowed in critical aquifer recharge areas and do not require submission of a hydrogeological assessment:

- (1) Construction of structures and improvements, including additions, resulting in less than five (5) percent or two thousand five hundred (2,500) square feet (whichever is greater) total site impervious surface area that does not result in a change of use or increase the use of a hazardous substance.
- (2) Development and improvement of parks, recreation facilities, open space, or conservation areas resulting in less than five (5) percent total site impervious surface area that do not increase the use of a hazardous substance.
Standards for development shall be in accordance with the provisions below and the requirements of other underlying city regulations.
- (3) On-site domestic septic systems releasing less than fourteen thousand five hundred (14,500) gallons of effluent per day and that are limited to a maximum density of one (1) system per one (1) acre.
- (4) Residential Use of Pesticides and Nutrients. Application of household pesticides, herbicides, and fertilizers that do not exceed times and rates specified on the packaging.
- (5) Residential storage or use of petroleum and petroleum products.

- (6) Activities which have a potential contamination source below threshold amounts as set forth in applicable statutes of the Revised Code of Washington or local regulations. The purpose of this clause is to allow for small-scale and residential activities thought to have no significant impacts to critical aquifer recharge areas.
- (b) Prohibited Activities. The following activities and uses are prohibited in Category I critical aquifer recharge areas:
- (1) Landfills, including hazardous or dangerous waste, municipal solid waste, special waste, and wood waste;
 - (2) Underground Injection Wells. Wells which meet the requirements of Chapters [173-218](#) and [173-200](#) WAC with the exception of 5B22, 5D2, 5G30, 5W12, 5W32, 5R21, and 5S23;
 - (3) Commercial mining and washing of metals, hard rock, sand and gravel;
 - (4) Chemical wood preservation and/or treatment facilities;
 - (5) Storage, processing, or disposal of radioactive substances;
 - (6) Commercial activities that are not connected to an available sanitary sewer system;
 - (7) Use or storage of pesticides listed as "State restricted use pesticides" by Chapter [16-228](#) WAC;
 - (8) Within one thousand six hundred (1,600) feet of Twin Lakes, any use of pesticides, and use fertilizers above agronomic rates;
 - (9) Oil and gas drilling as defined in WAC [332-12-450](#) and Chapter [173-218](#) WAC;
 - (10) Underground storage of hazardous substances as regulated by Chapter [173-360](#) WAC;
 - (11) Use, storage, treatment, or production of perchlorethylene (PCE), other than in closed-loop systems that do not involve any discharge of PCE;
 - (12) Petroleum refining, reprocessing, storage and petroleum-product pipelines;
 - (13) Electroplating/metal finishing;
 - (14) Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source; and
 - (15) Activities that would significantly reduce the recharge to aquifers that are a source of significant base flow to a regulated stream.

20.14.440 ALLOWED USES WITH PERFORMANCE STANDARDS.

- (a) General Requirements. Any activity not specifically exempted through BMC [20.14.430](#) as allowed or prohibited may be permitted in a critical aquifer recharge area if all of the following criteria are met (A list of specific uses with a potential threat to groundwater can be found in subsection (b) of this section.):
- (1) Hydrogeological Assessment.
 - (i) For Category I aquifer recharge areas the applicant must show through a hydrogeological assessment that the proposed activity will not cause significant impact to aquifer quality or recharge. The hydrogeological assessment will be evaluated and treated as a special use review and be reviewed by the Department, the health district, affected tribes, and affected water purveyors. An incompatible activity can be denied by the Director;
 - (ii) For Category II aquifer recharge areas a hydrogeological assessment may be required. The scope of the report shall be based on site-specific conditions. The hydrogeological assessment will be evaluated and treated as a special use review and be reviewed by the Department, the health district, affected tribes, and affected water purveyors. An incompatible activity can be denied by the Director. The need for additional information will be determined by the Department, the health district, and the affected water purveyor. Based on the report, controls, mitigation, and/or other requirements will be established as a prerequisite for the development proposal being approved.

- (2) The proposed activity must comply with the source water protection requirements and recommendations of the U.S. Environmental Protection Agency, Washington State Department of Health, Washington Department of Ecology, and the Kitsap County Health District.
 - (3) The proposed activity shall be designed and constructed in accordance with BMC Title [15](#), Municipal Utilities.
 - (4) The applicant must explore low-impact development site design alternatives and implement them where economically feasible. Low-impact development techniques can include, but are not limited to:
 - (i) Rainwater harvesting;
 - (ii) Reverse slope sidewalks;
 - (iii) Vegetated roofs;
 - (iv) Bioretention areas (rain gardens); and
 - (v) Pervious pavement.
- (b) Potential Threats to Groundwater. Specific uses with potential threats to groundwater can include, but are not limited to the following. Uses meeting the listed performance standards may be allowed if the criteria of this section are met.
- (1) Anything that is not exempt per BMC [20.14.430](#).
 - (2) All storage tanks proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the following requirements:
 - (i) All new above-ground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:
 - a. Not allow the release of a hazardous substance to the ground, groundwaters, or surface waters;
 - b. Have a primary containment area enclosing or underlying the tank or part thereof; and
 - c. A secondary containment system either built into the tank structure or a dike system built outside the tank for all tanks.
 - (3) Vehicle Repair and Servicing.
 - (i) Vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.
 - (ii) No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the State Department of Ecology prior to commencement of the proposed activity.
 - (4) Water reuse projects for reclaimed water must be in accordance with the adopted water or sewer comprehensive plans that have been approved by the State Departments of Ecology and Health.
 - (i) Use of reclaimed water for surface percolation must meet the groundwater recharge criteria given in RCW [90.46.010](#)(10) and [90.46.080](#)(1). the State Department of Ecology may establish additional discharge limits in accordance with RCW [90.46.080](#)(2).
 - (ii) Direct injection must be in accordance with the standards developed by authority of RCW [90.46.042](#).
 - (5) Automobile washers as defined in Chapter [173-216](#) WAC.
 - (6) Chemical treatment storage and disposal facilities as defined in WAC [173-303-182](#).
 - (7) Hazardous waste generators, including, but not limited to: boat repair shops, biological research facilities, dry cleaners, furniture stripping, motor vehicle service garages, photographic

processing, printing and publishing shops, medical and dental facilities, etc., as defined in Chapter [173-303](#) WAC.

(8) Junk yards and salvage yards as defined in Chapter [173-304](#) WAC, Best Management Practices to Prevent Stormwater Pollution at Vehicle Recycler Facilities (WDOE publication number 94-146).

(9) On-site sewage systems (large scale) as defined in Chapter [173-240](#) WAC.

(10) On-site sewage systems (less than fourteen thousand five hundred (14,500) gal/day) as defined in Chapter [246-272](#) WAC.

(11) Pesticide storage and use as defined in Chapters [15.54](#) and [17.21](#) RCW.

(12) Sawmills as defined in Chapters [173-303](#) and [173-304](#) WAC, WDOE publication number 95-53, Best Management Practices to Prevent Stormwater Pollution at Log Yards.

(13) Solid waste handling and recycling facilities as defined in Chapter [173-304](#) WAC.

(14) Wastewater application to land surface as defined in Chapters [173-216](#) and [173-200](#) WAC, and WDOE Land Application Guidelines, Best Management Practices for Irrigated Agriculture.

(15) New impervious surface area exceeding twenty thousand (20,000) square feet.

(16) Beneficial use of biosolids as defined in Chapter [173-308](#) WAC.

(17) Golf courses, provided:

(i) Fertilizer use is not above agronomic rates;

(ii) Pesticides are managed and applied by properly licensed personnel, and use of all pesticides is approved by the affected water utility;

(iii) The golf course allows for periodic monitoring by the Department or an affected water utility.

(18) Noncommercial gravel and sand mining, provided the extraction of materials remains no less than ten (10) feet above the level of the aquifer.

(c) Affected Agency Review. The City will notify Kitsap County Health District and affected water utilities and will request them to comment during the preliminary phases of the City's review process on all proposed projects defined in subsection (b) of this section or other uses not explicitly allowed or prohibited in BMC [20.14.430](#). The City in conjunction with these agencies may approve, deny, or condition proposals.

(d) Inspection. City personnel may inspect at reasonable times, upon presentation of credentials, as part of its wellhead protection program any activity that is known to manage or potentially manage hazardous materials.

20.14.450 HYDROGEOLOGIC ASSESSMENT.

The assessment shall address the impact the proposed land use will have on both the quality and quantity of the water transmitted to the aquifer.

(a) The assessment shall be submitted to the Department and shall address, at a minimum, the following criteria:

(1) Surficial soil type and geologic setting;

(2) Location and identification of wells within one thousand (1,000) feet of the site;

(3) Location and identification of surface water bodies and springs within one thousand (1,000) feet of the site with recharge potential;

(4) Description of underlying aquifers and aquitards, including water level, gradients and flow direction;

(5) Available surface water and groundwater quality data;

(6) Effects of the proposed development on water quality;

(7) Sampling schedules required to assure water quality;

(8) Discussion of the effects of the proposed development on the groundwater resource;

- (9) Recommendations on appropriate BMPs (best management practices) or mitigation to assure no significant degradation of groundwater quality; and
 - (10) Other information as required by the Kitsap County Health District.
 - (11) The assessment shall also address the types of pesticides, herbicides and fertilizers that can safely be used for the care of landscaping proposed by the applicant.
- (b) The hydrogeologic assessment shall be prepared by a professional geologist/hydrologist or by a soil scientist with a strong background in geology (see definition of "Qualified professional" in BMC 20.14.200).
- (c) Applications for development or operations with underground storage of petroleum products will be processed using the appropriate procedure as specified in existing Kitsap County ordinances.
- (d) Analysis for a specific parcel(s), using the criteria outlined below, will be employed to confirm if the soils present require a recharge area designation. Data collection will include, at a minimum, six (6) soil logs to a depth of ten (10) feet (or to a depth four (4) feet below the lowest proposed excavation point whichever is greater) for each acre in the parcel(s) being evaluated. At least one (1) well, two hundred (200) feet or greater in depth with an adequate drilling report, must be available within one (1) mile. The associated data shall be analyzed and included in the hydrogeologic assessment to determine the presence of highly permeable soils with the recharge area designation.

20.14.500 FREQUENTLY FLOODED AREAS.

BMC [20.14.500](#) through [20.14.530](#) pertain to frequently flooded areas.

20.14.510 DESCRIPTION AND PURPOSE.

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas caused by flooding, while protecting the functions and values of the floodplains. In addition, this section will give special consideration to anadromous fish habitat in combination with BMC [20.14.700](#), Fish and Wildlife Habitat Conservation Areas.

20.14.520 CLASSIFICATION AND DESIGNATION.

Frequently flooded areas are those areas established as areas of special flood hazard under Chapter 17.60 BMC, Floodplain Management. Under Chapter 17.60 BMC, this includes those areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Kitsap County and Incorporated Areas" dated November 4, 2010, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRM), and any revisions thereto. The best available information for flood hazard area identification as outlined in BMC 17.60.140(b) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under BMC 17.60.140(b). Classifications of flood hazard areas shall be consistent with the one hundred (100) year floodplain designation of the Federal Emergency Management Agency and the National Flood Insurance Program.

20.14.530 DEVELOPMENT STANDARDS.

- (a) All development proposals shall comply with Chapter [17.60](#) BMC for general and specific flood hazard protection. Development shall not reduce the base flood water storage ability. Construction, grading or other regulated activities that would reduce the flood water storage ability must be mitigated by creating compensatory storage on- or off-site.
- (b) Base flood data and flood hazard notes shall be shown on the face of any recorded plat or site plan including, but not limited to, base flood elevations, flood protection elevation, boundary of floodplain, and zero rise floodway.

(c) Unless exempted in 20.14.530(d), when development occurs within the floodplain, a habitat assessment is required, that is prepared in accordance with *Regional Guidance for Floodplain Habitat Assessment and Mitigation* (FEMA Region X, 2010), or as hereafter amended. The assessment shall determine if the project would adversely affect:

- (1) The primary constituent elements identified when a species is listed as threatened or endangered.
- (2) Essential Fish Habitat designated by the National Marine Fisheries Service.
- (3) Fish and wildlife habitat conservation areas.
- (4) Vegetation communities and habitat structures.
- (5) Water quality.
- (6) Water quantity, including flood and low flow depths, volumes and velocities.
- (7) The channel's natural planform pattern and migration processes.
- (8) Spawning substrate, if applicable, and/or
- (9) Floodplain refugia, if applicable.

(d) The following activities do not require completion a floodplain habitat assessment:

- (1) Repair of existing building in its existing footprint, including damages by fire or other casualties;
- (2) Removal of noxious weeds;
- (3) Replacement of non-native vegetation with native vegetation;
- (4) Ongoing activities such as lawn and garden maintenance;
- (5) Removal of hazard trees;
- (6) Normal maintenance of public utilities and facilities;
- (7) Restoration or enhancement of floodplains, riparian areas and streams that meets Federal and State standards.

20.14.600 GEOLOGICALLY HAZARDOUS AREAS.

BMC [20.14.600](#) through [20.14.660](#) pertain to geologically hazardous areas.

20.14.610 PURPOSE.

The purpose of BMC [20.14.600](#) through [20.14.660](#) is to protect human life and property from potential risks related to development on or near geologically hazardous areas. Geologically hazardous areas include areas susceptible to erosion, sliding, geologic events, landslides, and moderate and steep slope areas. BMC [20.14.600](#) through [20.14.660](#) classifies geologically hazardous areas and sets development standards for development and clearing in or near geologically hazardous areas.

20.14.620 CLASSIFICATION.

The following categories shall be used in classifying geologically hazardous areas:

- (a) Areas of high geologic hazard are areas meeting either of the following two (2) criteria:
 - (1) Areas with slopes greater than forty (40) percent with vertical relief of ten (10) or more feet; or
 - (2) Areas with slopes greater than thirty (30) percent with vertical relief of ten (10) or more feet, and any of the following characteristics:
 - (i) Unstable soil or shoreline classified as "unstable" (U), "unstable old slides" (UOS), "unstable recent slides" (URS), or "intermediate" (I) by the U.S. Department of Agriculture Soil Conservation Service, U.S. Geologic Survey, the Washington Department of Ecology Coastal Zone Atlas, or qualified geologist or geotechnical engineer;
 - (ii) Groundwater seepage or springs present on the slope, areas underlain by impermeable silts or clays, or mappable emergent water;
 - (iii) Erosion hazard as indicated by potential for stream or wave incision or as classified as "highly erodible" or "potentially erodible" by the Natural Resources Conservation Service;

(iv) Seismic areas subject to liquefaction from earthquakes such as hydric soils as identified by the Natural Resources Conservation Service, and areas that have been filled to make a site more suitable.

(b) Areas of moderate geologic hazard are any areas with slopes of thirty (30) percent or greater and vertical relief of ten (10) or more feet, and any areas with slopes of fifteen (15) percent to thirty (30) percent with vertical relief of ten (10) or more feet and any of the characteristics per subsections (a)(2)(i) through (iii) of this section. Seismic hazard areas subject to liquefaction from earthquakes, areas with hydric soils, and areas of loose fill shall be classified as moderate geologic hazard areas regardless of percent slope.

(c) Site-Specific Determination. Site-specific geological reports may be used to determine the classification of a potentially geologically hazardous area in either of the following cases:

- (1) When an applicant questions the information the Department must rely on to determine whether a location is classified as a geologically hazardous area, the applicant may submit an appropriate site-specific geological report. If supportable by the geological report, the Department may make a nongeologically hazardous determination.
- (2) The Department is authorized but not mandated to require submittal of a geological report for any proposal on a site with slopes of fifteen (15) percent or greater and vertical relief of ten (10) or more feet, or potential seismic hazard areas. Requests by the Department for submittal of a geological report may be made when slope percentages are poorly documented, or when it is deemed through site visit, close proximity to mapped areas of unstable soils, previously prepared geological reports in the vicinity, or other pertinent information that a probable likelihood of soil instability per subsection (a)(2)(i) through (iv) of this section exists on the site. The Department shall not make requests for geological reports in cases where slope percentages are well documented and there is a probable likelihood of stable soil characteristics on the site.

20.14.630 DEVELOPMENT STANDARDS.

The following standards shall apply to any land or vegetation modification or construction within a geologically hazardous area as classified per BMC [20.14.620](#) and its buffer as described herein. The Department will approve, approve with conditions or deny the development proposal based on its ability to meet the development standards. The Department will also consider any proposed mitigation measures or buffer reductions included in a geotechnical report per subsection (c) of this section.

(a) Areas of high geologic hazard as classified per BMC [20.14.620](#)(a) shall be subject to the following standards:

- (1) Building and Impervious Surface Buffer. No construction of any structure or impervious surface is allowed within fifty (50) feet of the top and toe of the slope, unless reductions supportable by a geotechnical report are approved.
- (2) Native Vegetation Buffer. Native vegetation shall be in place from the toe of the slope to twenty-five (25) feet beyond the top of the slope, unless modifications supportable by a geotechnical report are approved. Native vegetation shall meet the standards of subsection (g) of this section.

(b) Areas of moderate geologic hazard as classified per BMC [20.14.620](#)(b) shall be subject to the following standards:

- (1) Building and Impervious Surface Buffer. No construction of any structure or impervious surface is allowed within twenty-five (25) feet of the top and toe of the slope, unless reductions supportable by a geotechnical report are approved.
- (2) Native Vegetation Buffer. Native vegetation shall be in place from the toe of the slope to twenty-five (25) feet beyond the top of the slope, unless modifications supportable by a geotechnical report are approved. Native vegetation shall meet the standards of subsection (g) of this section.

(c) Reductions with Geological or Geotechnical Report. Modifications and/or reductions to the buffers prescribed per subsections (a)(1) and (2) and (b)(1) and (2) of this section may be granted if a geotechnical or geological report demonstrates that modified or reduced buffers, through design and engineering solutions, will provide protection to the proposed development and adjacent properties equal to that of the standard buffer. Such reports are subject to third-party review per BMC [20.14.660\(h\)](#). Reductions shall utilize the mitigation and performance standards listed per BMC [20.14.650](#) to the greatest possible extent. Requirements for geotechnical and geological reports are outlined in BMC [20.14.660](#).

(d) Buffer Increase. Should the Department determine based on a geological or geotechnical report that greater buffers than required per subsections (a)(1) and (2) and (b)(1) and (2) of this section are necessary to protect the proposed development and adjacent properties, greater buffers may be required. The Department may require an applicant to submit a geotechnical report with any proposal for land alteration that is located within two hundred (200) feet of an area of high or moderate geologic hazard if it determines through site visit, review of available documents, or history of prior events in the area, that the proposal could potentially require increased buffers to ensure safety.

(e) Elimination of Danger Trees. Within high or moderate geologic hazard areas, removal of danger trees may be allowed only if such activity is approved by the Department, provided a certified arborist in the State of Washington makes a written determination that the trees proposed for elimination present a legitimate safety hazard.

(f) Vegetation Thinning. Within high or moderate geologic hazard areas, minor pruning of vegetation or trees for view enhancement may be allowed only if such activity is approved by the Department. The following are allowable methods and techniques for vegetation thinning, except that mature or old-growth trees shall only be treated per method in subsection (f)(5) of this section:

(1) Tree Thinning. The selective removal of branches in the inner crown of the tree, provided no more than twenty-five percent (25%) of a tree's leaf-bearing crown is removed. An even distribution of interior small branches and foliage on remaining limbs shall be maintained to avoid over-thinning.

(2) Tree Raising. The removal of the lower branches of a tree in order to provide clearance for passage or vistas. After raising, the height of the pruned portion shall not exceed one-third (1/3) of the total tree height; provided, that removal of branches from the lower portion shall not exceed twenty-five (25) percent of the tree's leaf-bearing crown.

(3) Tree Reduction. Reducing the height or spread of a tree for clearance or vistas by selectively removing leaders and terminals of branches. Cuts should be made to lateral branches at unions, whereby the cut branch is at least one-third (1/3) the diameter of the stem at the union. No more than twenty-five percent (25%) of a tree's crown mass shall be removed, unless it can be demonstrated that further reduction is necessary for functions such as utility clearance.

(4) Tree Topping. Topping shall be used as a last resort when it can be demonstrated that methods in subsections (f)(1) through (3) of this section are not feasible, or when it can be demonstrated by a certified arborist that topping is less harmful to the particular species of tree than other listed methods. Topping is the indiscriminate cutting of branches and laterals to stubs at a specific tree height or spread, often exceeding twenty-five percent (25%) of a tree's crown mass. Topping is harmful to a tree and creates unsightly regrowth that requires future trimming at frequent intervals. When tree topping is used in a geologically hazardous area, the root system shall remain in place.

(5) Pruning Mature Trees. Mature and old-growth trees are more susceptible to permanent damage or death from pruning. Pruning of mature trees should only be done as a corrective or preventative measure, such as the removal of decayed, rubbing, or crowded branches.

(6) Brush Removal. Clearing of noninvasive brush, shrubs, natural grasses and other such vegetation shall be the minimum necessary to maintain vistas, passage and other necessary functions.

(g) Native Vegetation. Native vegetation shall be of appropriate plant selection and species to perform slope stabilization and erosion prevention functions. The Department may require vegetation enhancement with appropriate species, and may call for an analysis of the relationship between vegetation and slope stability per BMC [20.14.660\(e\)\(1\)](#). Valid scientific resources such as Washington State Department of Ecology documents "Vegetation Management: A Guide For Puget Sound Bluff Property Owners," and "Erosion Control Using Vegetation" should be consulted when vegetation is proposed for slope stabilization and erosion control purposes.

(h) Erosion Control. Clearing or grading of any area within a high or moderate geologic hazard area or within two hundred (200) feet of the high or moderate geologic hazard area shall be limited to the period between May 1st to October 1st, unless the applicant provides an erosion and sedimentation control plan prepared by a qualified professional licensed in the State of Washington that specifically and realistically identifies methods of erosion control for wet weather conditions. All land modification proposals shall be consistent with the guidelines set forth in BMC [15.04.090](#), Stormwater Systems/Engineering Design and Construction Standards General. The faces of all cut and fill slopes shall be protected to prevent erosion as required by the engineered erosion and sedimentation control plan.

(i) Stormwater Runoff. At no time shall concentrated stormwater runoff be allowed to surface flow directly over a moderate or high geologically hazardous area or its buffer on a subject site or on neighboring properties. To reduce potentially harmful stormwater runoff discharge from impervious surfaces, the Department may approve reductions to required parking standards, provided it can be demonstrated that such reductions would not significantly impact neighboring properties. Stormwater discharge shall meet all standards set forth in BMC [15.04.090](#), Stormwater Systems/Engineering Design and Construction Standards General.

(j) Significant Development Risk. In cases where a geotechnical report indicates a significant risk to public health, safety and welfare, the Department shall deny or require revision of the site development proposal.

(k) Utilities, Trails, and Roads. The following activities are allowable within geologically hazardous areas and buffers, provided it can be demonstrated through a geotechnical report that construction will not significantly increase landslide or erosion risk:

- (1) Public or private trails approved by the Department per the provisions of this chapter;
- (2) Public or private utilities;
- (3) Public roads and related infrastructure.

(l) On-Site Sewage Disposal. On-site sewage disposal should be avoided in areas of high geologic hazard and their buffers. In cases where such areas cannot be avoided, review by a geologist or a geotechnical engineer licensed in the State of Washington will be required in coordination with the Kitsap County Health District.

(m) Construction for Earthquake Loads. All construction must meet the requirements of the City Building Code as set forth in Chapter [17.04](#) BMC.

20.14.650 MITIGATION, PERFORMANCE STANDARDS AND REQUIREMENTS.

(a) The following project design and location techniques are preferred in areas of moderate or high geologic hazard and their buffers. The Department may condition or modify development proposals to require incorporation of such design techniques in cases where their application would increase public safety and welfare without substantially altering the allowable scope and scale of the proposal:

- (1) Minimize soil disturbance and vegetation removal;
- (2) Cluster structures to maintain natural topography;
- (3) Minimize building footprints and impervious surface areas;
- (4) Construct roads, walkways and parking areas to parallel natural contours;
- (5) Provide access in areas of the site with less sensitivity;

- (6) Avoid toe armoring at the base of banks, bluffs and near shorelines. Toe armoring is only an acceptable engineering solution when it meets the provisions of BMC [20.14.660\(b\)](#), and all requirements of the Bremerton Shoreline Master Program and other sections of this chapter;
- (7) The following performance and mitigation standards shall apply to seismically hazardous areas;
 - (i) Avoid construction of structures using unreinforced masonry materials in areas of hydric soils, fill, or other soils prone to liquefaction from earthquakes;
 - (ii) When redevelopment is proposed on a site containing hydric soils, fill, or other soils prone to liquefaction from earthquakes encourage replacement or removal of existing unreinforced masonry structures;
 - (iii) Use appropriate building footing techniques such as pilings on sites containing hydric soils, fill, or other soils prone to liquefaction from earthquakes;
 - (iv) Avoid construction of essential public facilities, other potential emergency response facilities, and large-scale public gathering places on sites underlain by known surface fault lines.

20.14.660 SPECIAL REPORTS.

Whenever development is proposed in a geologically hazardous area as defined in BMC [20.14.620](#), or when the Department determines that additional soils and slope analysis is appropriate on a particular site per BMC [20.14.620\(c\)](#), the applicant is required to submit a geotechnical or geological report that evaluates the surface and subsurface soil conditions on the site.

- (a) **Qualifications.** Geotechnical reports shall be prepared by a qualified professional (defined in BMC [20.14.200](#) under "qualified professional").
- (b) **General Provisions.** Report recommendations for earthwork, clearing or siting structures in geologically hazardous areas shall be based on existing site conditions rather than measures that have not yet been successfully approved or constructed (e.g., slope recontouring, retaining walls, bulkheads, etc.). Shoreline bulkheads and retaining walls may only be utilized as an engineering solution where it can be demonstrated that:
 - (1) An existing structure or existing public facility such as roads cannot be safely maintained without such measures;
 - (2) Other nonstructural methods of beach stabilization have been considered and determined infeasible; and
 - (3) The resulting stabilization structure is the minimum necessary to provide stability for the existing structure and appurtenances.
- (c) **Minor Repairs.** Minor repair activities on existing permitted structures (i.e., those that do not involve design modifications, changes in structure location, and/or demolition or abandonment of failed structure and replacement with new structures) are not subject to the following project submittal requirements.
- (d) **Geological Reports.** A geological report is required for site development proposals that involve development activities within a geological hazardous area or its buffer per BMC [20.14.630\(c\)](#), but do not require an engineered solution. The following minimum information is required:
 - (1) Description of surface and subsurface conditions, including ground materials, vegetation, surface drainage, groundwater, and a preliminary geologic hazard assessment which includes the location of structures and the identification of the slope and/or coastal processes occurring at the site and factors that contribute to them;
 - (2) Review of available information, literature, and mapping;
 - (3) Detailed description of slope and other topographic features; and
 - (4) Conceptual siting of structure and general recommendation which include methods and practices that avoid and/or reduce slope and shore impacts. Minimum recommendations should

include upland and slope drainage control, groundwater control, site vegetation management, and erosion control.

(e) Geotechnical Reports. A geotechnical report is required when the Department or geological report determines that a site development proposal requires additional site information such as engineering design recommendation, slope stability analysis, subsurface exploration and testing, coastal process analyses, or construction recommendations. Depending on the level of activity proposed, the report will either be a more limited geotechnical slope evaluation report, or a full geotechnical design investigation report as described below:

(1) Geotechnical Slope Evaluation Report. A geotechnical slope evaluation report is required when slope stability analyses are confined to existing surface and/or drainage conditions, including the relationship of natural and constructed slope features to proposed changes in environmental conditions such as drainage, vegetation removal and slope geometry. The following minimum information is required:

- (i) All information under subsection (d) of this section;
- (ii) Subsurface data, exploration logs, and testing data, when required by the geotechnical engineers;
- (iii) Estimated (or surveyed) contour map and site plan, and the Department may require ground surface profiles and typical cross-sections;
- (iv) Relative location of ordinary high water (OHW) on the surface profile and cross-sections which include mean higher high water (MHHW) for the site location, where applicable;
- (v) Soil strength parameters;
- (vi) Stability analysis of existing site;
- (vii) Analysis of the relationship of vegetation and slope stability; and
- (viii) Conceptual site development plans and cross-sections.

(2) Geotechnical Design Investigation Report. A geotechnical design investigation report is required for site development activities that propose design and construction measures at the slope crest, face and/or toe. If a designed structure does not impact slope stability or coastal processes, the report will not be required to perform all items listed under this section, as long as each item is addressed and the report details why a particular item does not apply. The following information is required:

- (i) All the information required under subsection (e)(1) of this section;
- (ii) Geotechnical requirements and measures to reduce risks;
- (iii) Geotechnical criteria used for any designs including all critical dimension, lateral earth pressures, soil-bearing pressures, location and limits of structure on or near the slope, maximum constructed slope angles, minimum soil reinforcement embedment, soil compaction requirements, and structure heights;
- (iv) Temporary construction slope stability recommendation and analyses of proposed final site stability measures;
- (v) Required construction specification and construction monitoring procedures;
- (vi) Revegetation and surface and groundwater management requirements;
- (vii) Evaluation of erosion potential and recommendations for erosion avoidance and any proposed mitigation measures; and
- (viii) Detailed tabulation of all basic geotechnical engineering test results pertinent to design and construction, and when required for clarification, detailed examples of tests conducted for the project.

(f) Revisions to Geotechnical Reports. Further recommendations shall be provided by the geotechnical engineer should there be additions or exceptions to the original recommendation based on the plans, site condition, or other supporting data. If the geotechnical engineer who revises the plans and specification is not the same engineer who prepared the geotechnical report, the new engineer shall, in a letter to the

Department, express his or her agreement or disagreement with the recommendations in the geotechnical report and state whether the plans and specification conform to his or her recommendations.

(g) Plan and Specification Review. When the engineered solutions are proposed, the geotechnical engineer shall submit a statement that in his or her judgment, the plans and specifications (if prepared by others) conform to the recommendations in the geotechnical report and that all portions of the site which are disturbed or impacted by the proposed development have appropriate measures or specification that permit construction to occur while addressing slope stability so that the work does not create additional risk. The statement shall also indicate whether or not a relative gain in slope stability will be achieved after construction is complete.

(h) Monitoring and Third-Party Review.

(1) To protect public health, safety and welfare, the Department may call for a third-party review of any geotechnical report in cases where it determines there may be substantial damage to life, property or the environment should a proposed engineered solution fail. When a third-party review is required, costs incurred for a qualified third-party geotechnical engineer to perform the review shall be borne by the applicant.

(2) Where revegetation or plantings are proposed as a method to ensure slope stability, a monitoring program shall be included as a part of the approved geotechnical report. To ensure that the performance standards of the approved geotechnical report are met, the vegetation shall be monitored for a minimum of five (5) years. A longer monitoring period may be required by the City based on either the initial report, or a review of subsequent monitoring reports. The monitoring reports shall be submitted on August 1st of each year during the monitoring period.

(i) Construction Inspection. A final inspection report shall be provided by the geotechnical engineer stating that construction has or has not implemented the design recommendations of the geotechnical report, and evaluation of any deviation from the design recommendations.

20.14.700 FISH AND WILDLIFE HABITAT CONSERVATION AREAS.

BMC [20.14.700](#) through [20.14.760](#) pertain to fish and wildlife habitat conservation areas.

20.14.710 DESCRIPTION AND PURPOSE.

The intent of these regulations is to avoid impacts to streams, riparian habitat, anadromous fish, and wildlife conservation areas where such avoidance is feasible and reasonable. This section of the City Code contains standards, guidelines, criteria and requirements intended to identify, evaluate and mitigate potential impacts to habitat conservation areas within the City and to enhance degraded habitat and streams in appropriate cases. In appropriate circumstances, impacts resulting from regulated activities may be minimized, rectified, reduced and/or compensated for, consistent with this chapter. The regulations are to manage land so as to maintain fish and wildlife species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created and achieve no net loss in fish or wildlife habitat or stream functions.

20.14.720 CLASSIFICATION AND DESIGNATION OF FISH AND WILDLIFE HABITAT CONSERVATION AREAS.

Classification and designation of fish and wildlife habitat conservation areas is an ongoing process; while not all of the following critical habitat conservation areas are known to exist in the City, their designation here allows for future categorization for protection. The following categories shall be used for relevant development standards of BMC [20.14.730](#).

(a) Streams and River Shorelines. All streams and river shorelines which meet the criteria for Type S, F, Np or Ns waters as set forth in WAC [222-16-030](#) of the Department of Natural Resources Water Typing System.

- (1) Type S water means all waters, within their bankfull width, as inventoried as "shorelines of the state" under Chapter [90.58](#) RCW and the rules promulgated pursuant to Chapter [90.58](#) RCW including periodically inundated areas of their associated wetlands.
- (2) Type F water means segments of natural waters other than Type S waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of one-half (1/2) acre or greater at seasonal low water and which in any case contain fish habitat or are described by one (1) of the following four (4) categories:
- (i) Waters, which are diverted for domestic use by more than ten (10) residential or camping units or by a public accommodation facility licensed to serve more than ten (10) persons, where such diversion is determined by the Department to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type F water upstream from the point of such diversion for one thousand five hundred (1,500) feet or until the drainage area is reduced by fifty (50) percent, whichever is less;
 - (ii) Waters, which are diverted for use by federal, State, tribal or private fish hatcheries. Such waters shall be considered Type F water upstream from the point of diversion for one thousand five hundred (1,500) feet, including tributaries if highly significant for protection of downstream water quality. The Department may allow additional harvest beyond the requirements of Type F water designation, provided the Department determines after a landowner-requested on-site assessment by the Department of Fish and Wildlife, Department of Ecology, the affected tribes and interested parties that:
 - a. The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and
 - b. Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery;
 - (iii) Waters, which are within a federal, State, local, or private campground having more than ten (10) camping units; provided, that the water shall not be considered to enter a campground until it reaches the boundary of the park lands available for public use and comes within one hundred (100) feet of a camping unit, trail or other park improvement;
 - (iv) Riverine ponds, wall-based channels, and other channel features that are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria:
 - a. The site must be connected to a fish habitat stream and accessible during some period of the year; and
 - b. The off-channel water must be accessible to fish.
- (3) Type Np water means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are waters that do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations (see board manual, section 23), then Type Np waters begin at a point along the channel where the contributing basin area is:
- (i) At least thirteen (13) acres in the Western Washington coastal zone (which corresponds to the Sitka spruce zone defined in Franklin and Dyrness, 1973);
 - (ii) At least fifty-two (52) acres in other locations in Western Washington; or
 - (iii) At least three hundred (300) acres in Eastern Washington.
- (4) Type Ns water means all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not

located downstream from any stream reach that is a Type Np water. Type Ns waters must be physically connected by an above-ground channel system to Type S, F, or Np waters.

- (b) Saltwater Shorelines, ~~and~~ Lakes Twenty (20) Acres and Greater in Surface Area. Those saltwater shorelines and lakes defined as shorelines of the State in the Shoreline Management Act of 1971 and the Bremerton Shoreline Master Program as amended. Shorelines include: Type S waters as set forth in WAC [222-16-030](#) (DNR Water Typing System) as amended; commercial and recreational shellfish areas; kelp and eelgrass beds; and forage fish spawning areas (i.e., herring, smelt, and sand lance).
- (c) Lakes Less than Twenty (20) Acres in Surface Area. Those lakes which meet the criteria for Type F, Np, and Ns waters as set forth in WAC [222-16-030](#) as amended. This includes lakes and ponds less than twenty (20) acres in surface area and their submerged aquatic beds, lakes, and ponds planted with game fish by a governmental or tribal authority.
- (d) Class I Fish and Wildlife Conservation Areas.
 - (1) Habitats and species recognized by federal or State agencies for federal and/or State-listed endangered, threatened and sensitive species that have primary association documented in maps or databases available to the City and that, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.
 - ~~(2) Areas targeted for preservation by the federal, State, and/or local government which provide fish and wildlife habitat benefits, such as the shared strategy process for Puget Sound; and areas of primary association for anadromous fish and important waterfowl areas identified by the U.S. Fish and Wildlife Service.~~
 - ~~(3)~~ (2) Areas that contain habitats and species of local importance. These areas are identified by the City, including but not limited to those habitats and species that, due to their population status or sensitivity to habitat manipulation, warrant protection. Habitats may include a seasonal range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. Habitats of local importance can include attributes such as comparatively high wildlife density, high wildlife species richness, significant wildlife breeding habitat, seasonal ranges or movement corridors of limited availability and/or high vulnerability. These habitats may include cliffs, meadows, old-growth/mature forests, snag-rich areas, and urban natural open spaces.
- (e) Class II Fish and Wildlife Conservation Areas.
 - (1) Habitats for State-listed candidate and monitored species documented in maps or databases available to the City, which if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.
 - (2) Habitats that have been identified through maps, databases, reports, or studies that include attributes such as comparatively high wildlife density, high wildlife species richness, significant wildlife breeding habitat, seasonal ranges or movement corridors of limited availability and/or high vulnerability. These habitats may include caves, cliffs, meadows, old-growth/mature forests, snag-rich areas, talus slopes, and urban natural open space.
- (f) Habitats and Species of Local Importance. The City should accept and consider nominations for habitat areas and species to be designated as locally important.
 - (1) Habitats and species to be designated shall exhibit the following characteristics:
 - (i) Local populations of native species are in danger of extirpation based on existing trends;
 - (ii) Local populations of native species that are likely to become endangered; or
 - (iii) Local populations of native species that are vulnerable or declining.
 - (2) The species or habitat has recreation, commercial, game, tribal, or other special value.
 - (3) Long-term persistence of a species locally is dependent on the protection, maintenance, and/or restoration of the nominated habitat.

- (4) Protection by other county, State, or federal policies, laws, regulations, or nonregulatory tools is not adequate to prevent degradation of the species or habitat in the City.
- (5) Without protection, there is likelihood that the species or habitat will be diminished locally over the long term.
- (6) Areas nominated to protect a particular habitat or species must represent either high-quality native habitat or habitat that has a high potential to recover to a suitable condition and which is of limited availability, highly vulnerable to alteration, or provides landscape connectivity which contributes to the integrity of the surrounding landscape.
- (7) Habitats and species may be nominated for designation by any person.
- (8) The nomination should indicate whether specific habitat features are to be protected (for example, nest sites, breeding areas, and nurseries), or whether the habitat or ecosystem is being nominated in its entirety.
- (9) The nomination may include management strategies for the species or habitats. Management strategies must be supported by the best available science, and where restoration of habitat is proposed, a specific plan for restoration must be provided prior to nomination.
- (10) The Director shall determine whether the nomination proposal is complete and, if complete, shall evaluate it according to the characteristics enumerated in subsection (f)(1) of this section and make a recommendation to the Planning Commission based on those findings.
- (11) The Planning Commission shall hold a public hearing for proposals found to be complete and make a recommendation to the City Council based on the characteristics enumerated in subsection (f)(1) of this section.
- (12) Following the recommendation of the Planning Commission, the City Council shall decide whether to designate a habitat or species of local importance by resolution.
- (13) Establishment of Specific Rules for Protection. Within one hundred twenty (120) days of the effective date of an ordinance designating a species or habitat of local importance, the Director shall develop an administrative rule addressing protection in compliance with this section.
- (14) Development Standards. Regulated uses in designated fish and wildlife habitat conservation areas and/or buffers shall comply with the performance standards outlined in this section.

20.14.730 DEVELOPMENT STANDARDS.

For the purposes of this title, a designated fish and wildlife habitat conservation area with its buffer is a critical area. Those regulated uses identified below within designated fish and wildlife habitat conservation areas shall comply with the performance standards outlined in this chapter. A habitat management plan (HMP) is a site investigation to evaluate the potential presence or absence of a regulated fish or wildlife species or habitat affecting a subject property and proposed development.

(a) Endangered, Threatened, and Sensitive Species.

(1) No development shall be allowed within a 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 habitat management plan (HMP) ~~established by the Washington Department of Fish and Wildlife or applicable State or federal agency.~~

(2) Whenever activities are proposed adjacent to a 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 an HMP prepared by a qualified professional and approved by the City. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife for animal species, the Washington State Department of Natural Resources for plant species, and other appropriate federal or State agencies.

~~(3) Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). Whenever activities are proposed adjacent to a verified nest, territory, or~~

~~communal roost and, activities that are adjacent to bald eagle sites within eight hundred (800) feet or within one-half (1/2) mile (two thousand six hundred forty (2,640) feet) and in a shoreline foraging area shall require an approved HMP. The City shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the HMP by the Washington Department of Fish and Wildlife.~~

(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:

- (i) Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;
- (ii) If alternative alignment or location for the activity is not feasible, then activities shall be designed so that it will not degrade the functions or values of the fish habitat or other critical areas;
- (iii) Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report; and
- (iv) Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved habitat management plan.

(2) Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.

(3) Fills, when authorized by the Shoreline Master Program, 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 habitat conservation areas containing wetlands shall conform to the wetland development performance standards set forth in BMC [20.14.300](#). If nonwetlands habitat and wetlands are present at the same location, the provisions of this chapter or the wetlands chapter, whichever provides greater protection to the habitat, apply.

(d) Buffers and Associated Building Setback Areas. The distance shall be measured from the ordinary high water mark (OHM) or from the top of the bank where the OHM cannot be identified. Buffers shall remain undisturbed natural beach or vegetation areas except where the buffer can be enhanced to improve its functional attributes, as approved by the Department. Buffers shall be maintained along the perimeter of fish and wildlife habitat conservation areas, as listed below in Table 1 of this section. Refuse shall not be placed in buffers. Alteration of buffer areas and building setbacks may be allowed for water-dependent and water-related activities and for other development authorized by an HMP, reasonable use exceptions, general exemptions, standards for existing (nonconforming) development, and variances in general exemptions, BMC [20.14.140](#).

<u>20.14.730 Table 1: Water Type Buffer Standards</u>			
<u>Water Types</u>	<u>Attributes</u>	<u>Minimum Building Setback</u>	<u>Buffer Width Standard</u>
<u>S</u> <u>Saltwater & Freshwater</u>	<u>See Shoreline Master Program for buffer and minimum building setback per Ordinance 5229, or as hereinafter amended</u>		
<u>F</u>	<u>Fish Habitat Waters</u>	<u>15 feet beyond buffer</u>	<u>150 feet</u>
<u>Np</u>	<u>Year-Round, Nonfish Habitat</u>	<u>15 feet beyond buffer</u>	<u>50 feet</u>

<u>Ns</u>	<u>Seasonal, Nonfish Habitat</u>	<u>15 feet beyond buffer</u>	<u>35 feet</u>
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20.14.730 Table 1: Water Type Buffer Standards			
Water Types	Attributes	Minimum Building Setback	Buffer Width Standard
S Saltwater	Urban Commercial/Industrial/ Downtown Waterfront	15 feet beyond buffer	25 feet
-	Urban Residential	15 feet beyond buffer	35 feet
-	Urban Conservancy	15 feet beyond buffer	175 feet
S Freshwater	Freshwater Shorelines of the State	15 feet beyond buffer	175 feet
F	Fish Habitat Waters	15 feet beyond buffer	150 feet
Np	Year-Round, Nonfish Habitat	15 feet beyond buffer	50 feet
Ns	Seasonal, Nonfish Habitat	15 feet beyond buffer	35 feet

(1) Buffers. Where existing buffer area plantings provide minimal vegetative cover and cannot provide the City's water quality standards or habitat functions (per the requirements of the Department of Ecology and Fish and Wildlife), buffer enhancement shall be required. Where buffer enhancement is required, a plan shall be prepared that includes plant densities that are not less than three (3) feet on center for shrubs and eight (8) feet on center for trees. Monitoring and maintenance of plants shall be required in accordance with BMC [20.14.760](#), Monitoring and Contingency Plan. Existing buffer vegetation is considered "inadequate" and will require enhancement through additional native plantings and removal of nonnative plants when:

- (i) Nonnative or invasive plant species provide the dominant cover;
- (ii) Vegetation is lacking due to disturbance and marine, stream, or habitat resources could be adversely affected; or
- (iii) Enhancement plantings in the buffer could significantly improve buffer functions.

(2) "Minimum building setback" is the required horizontal distance between the finished exterior wall of a structure and the edge of the buffer of the lot on which the structure is located. All portions of a structure must be located away from the buffer a distance equal to or greater than the minimum setback. Uses not requiring a permit defined in the City Building Code as set forth in Chapter [17.04](#) BMC may be permitted in the setback if the Department determines that such intrusions will not adversely impact the fish and wildlife habitat conservation area.

(3) Stream Buffer Measurement. Streams shall be classified according to the stream type system as provided in WAC [222-16-031](#), Interim water typing system. Stream buffer areas are defined by these classifications, as shown in Table 1 of this section. Buffers shall be measured from the ordinary high water mark (OHM) or from the top of the bank where the OHM cannot be identified. The buffer width shall be increased to include streamside wetlands which provide overflow storage for storm waters, feed water back to the stream during low flows or provide shelter and food for fish.

In braided channels, the OHM or top of bank shall be defined so as to include the entire stream feature.

(4) Buffer Averaging. For buffering averaging for areas within the areas of shoreline jurisdiction, please refer to the Shoreline Master Program 7.010(c)(5). For all other areas, Buffer widths may be modified by averaging buffer widths as long as the total area contained within the buffer after averaging is no less than the required buffer prior to averaging, and as set forth below. A buffer enhancement plan shall be required for any request for buffer averaging. The enhancement plan shall be similar to a mitigation plan, and include provisions for mitigation monitoring and contingency plans. Buffer width averaging shall be allowed only where the applicant demonstrates through a report prepared by a qualified biologist or habitat specialist with five (5) years' experience that:

- (i) Buffer averaging is necessary to avoid a hardship caused by circumstances to the property;
- (ii) The habitat contains variations in sensitivity due to existing physical characteristics, or the buffer varies in characteristics and it would benefit from a wider buffer in places and would not be adversely impacted by a narrower buffer in other places;
- (iii) Lower intensity land uses would be located adjacent to areas where the buffer width is reduced;
- (iv) The widest portion of the buffer shall be the area where the habitat is most sensitive;
- (v) Buffer width averaging will not adversely impact fish and wildlife habitat conservation areas;
- (vi) The buffer width may be reduced by thirty-five (35) percent of the standard buffer, but not less than thirty-five (35) feet unless provided for by a habitat management plan.

(5) Buffer Reduction. Buffers and associated building setbacks may be reduced where the applicant demonstrates through an approved HMP relying on best available science and prepared by a qualified specialist with five (5) years' experience that through buffer enhancement the smaller buffer would provide equal or better protection than the larger buffer, but shall not be reduced by more than thirty-five (35) percent. Enhancement techniques can include, but are not limited to:

- (i) Planting of native trees or shrubs, increasing the diversity of plant cover types, replacing exotic species with native species, or reestablishing fish areas adjacent to a marine shoreline or stream where one (1) currently does not exist will result in improved function of the fish habitat;
- (ii) Fish barrier removal to restore accessibility to resident or anadromous fish;
- (iii) Fish habitat enhancement using log structures incorporated as part of a fish habitat enhancement plan;
- (iv) Stream and/or retention/detention pond improvements:
 - a. Removal or modification of existing stream culverts (such as at road crossings) to improve fish passage and flow capabilities, or
 - b. Upgrade of retention/detention facilities or other drainage facilities beyond required levels to provide a more naturalized habitat;
- (v) Removal of existing bulkheads to improve fish spawning and habitat areas;
- (vi) Daylighting a stream that was previously culverted or piped, or daylighting box culverts or trestles.

(6) Stormwater Management Facilities. Stormwater management facilities, limited to stormwater dispersion outfalls and bioswales, may be allowed within the outer twenty-five (25) percent of the buffer; provided, that:

- (i) No other location is feasible; and
- (ii) The buffer is over 100 feet in width; and

- (iii) The location of such facilities will not degrade the functions or values of the stream and/or habitat area shown through an approved HMP.
- (7) Low-Impact Development (LID) Facilities. LID facilities, may be allowed within stream buffers; provided that:
 - (i) No other location is feasible; and
 - (ii) The buffer is over 100 feet in width; and
 - (iii) The location of such facilities will not degrade the functions or values of the stream and/or habitat area shown through an approved HMP.
- (8) Habitat Conservation Area Buffers. For Type F, Type Np, and Type Ns waters only, hHabitat conservation area buffers shall be shown on the development site plans or final plat maps along with the notation requirements identified in BMC [20.58.080](#).
 - (i) If an existing property has a previously delineated and approved fish and wildlife habitat conservation area and associated buffer by the City, the approved conservation area and buffer may remain in effect. Redevelopment, and/or additions outside of the existing footprint shall be subject to the previously approved buffer; however, a buffer enhancement plan may be required in accordance if the habitat buffer area has become degraded or is currently not functioning or if the habitat area and/or buffer may be negatively affected by proposed new development. If, according to the buffer enhancement plan, additional buffer mitigation is not sufficient to protect the habitat, the City may require larger buffers where it is necessary to protect habitat functions based on site-specific characteristics.
- (e) Class I Fish and Wildlife Conservation Areas. All development as described within this chapter or within two hundred (200) feet of designated Class I wildlife conservation areas shall adhere to the following standards:
 - (1) All sites with known locations of Class I fish and wildlife conservation areas or sites within two hundred (200) feet, or the applicable distance identified by Washington Department of Fish and Wildlife management recommendations, whichever is greater, to known locations of Class I fish and wildlife conservation areas will require, for all development permits, the submittal and approval of a habitat management plan (HMP) as specified in BMC [20.14.750](#). ~~In the case of bald eagles, an approved bald eagle management plan by the Washington State Department of Fish and Wildlife, meeting the requirements and guidelines of the bald eagle protection rules (WAC 232-12-292), as now or hereafter amended shall satisfy the requirements for an HMP.~~ The requirement for an HMP shall be determined during the SEPA/critical areas review on the project.
 - (2) All new development within two hundred (200) feet of habitat elements with which Class I fish and wildlife have a critical habitat, or the applicable distance identified by Washington Department of Fish and Wildlife management recommendations, whichever is greater, may require the submittal of an HMP as specified in BMC [20.14.750](#). The requirement for an HMP shall be determined during the SEPA/critical areas review on the project.

20.14.730 Table 2: Wildlife Habitat Conservation Areas	
Class I	All developments within 200 ft. <u>or applicable distance by WDFW management recommendations</u> of a designated Class I wildlife habitat conservation area shall have buffer widths determined by a mandatory habitat management plan.
Class II	All development within a Class II wildlife habitat conservation area shall have the buffer widths be determined by the SEPA/critical area review on the project and may require a habitat management plan.

- (f) Class II Fish and Wildlife Conservation Area. All new development within Class II fish and wildlife conservation areas may require the submittal of an HMP. An HMP shall consider measures to retain and protect the wildlife habitat and shall consider effects of land use intensity, buffers, setbacks, impervious

surfaces, erosion control and retention of native vegetation. The requirement for an HMP shall be determined during the SEPA/critical areas review on the project.

(g) Stream Crossings. Any private or public road expansion or new construction which is allowed and must cross streams classified within this chapter shall comply with the following minimum development standards:

- (1) Bridges or bottomless culverts shall be required for all fish-bearing streams. Other alternatives may be allowed upon submittal of a habitat management plan which demonstrates that other alternatives would not result in significant impacts to the fish and wildlife conservation area, as determined appropriate through the Washington State Department of Fish and Wildlife, hydraulics project approval process. The plan must demonstrate that salmon habitat will be replaced on a 1:1 ratio;
- (2) Crossings shall not occur in salmonid spawning areas unless no other feasible crossing site exists. For new development proposals, if existing crossings are determined to adversely impact salmon spawning or passage areas, new or upgraded crossings shall be located as determined necessary through coordination with the Washington State Department of Fish and Wildlife;
- (3) Bridge piers or abutments shall not be placed in either the floodway or between the ordinary, high water marks unless no other feasible alternative placement exists;
- (4) Crossings shall not diminish flood carrying capacity;
- (5) Crossings shall serve multiple properties whenever possible; and
- (6) Where there is no reasonable alternative to providing a conventional culvert, the culvert shall be the minimum length necessary to accommodate the permitted activity (guidance for these projects can be found in the Washington Department of Fish and Wildlife "Fish Passage Design at Road Culverts" design manual 1999, and the National Marine Fisheries Service "Guidelines for Salmonid Passage at Stream Crossings" 2000).

(h) Stream Relocations. Stream relocations for the purpose of flood protection and/or fisheries restoration shall only be permitted when adhering to the following minimum performance standards and when consistent with Washington State Department of Fish and Wildlife hydraulic project approval:

- (1) The channel, bank and buffer areas should be replanted with native vegetation in undisturbed riparian condition;
- (2) For those shorelands and waters designated as frequently flooded areas, a professional engineer licensed in the State of Washington shall provide information demonstrating that the equivalent base flood storage volume and function will be maintained; and
- (3) Relocated stream channels shall be designed to meet or exceed the functions and values of the stream to be relocated.

(i) Pesticides, Fertilizers and Herbicides. No pesticides, herbicides or fertilizers may be used in fish and wildlife conservation areas or their buffers, except those approved by the EPA and approved under a DOE water quality modification permit for use in fish and wildlife habitat conservation area environments. Where approved, herbicides must be applied by a licensed applicator in accordance with the safe application practices on the label.

(j) Land Divisions and Land User Permits. All proposed divisions of land and land uses (subdivisions, short subdivisions, residential cluster developments, conditional use permits, site plan reviews, and binding site plans) which include fish and wildlife habitat conservation areas shall comply with the following procedures and development standards:

- (1) The open water area of lakes, streams, and tidal lands shall not be permitted for use in calculating minimum lot area;
- (2) Land division approvals shall be conditioned so that all required buffers are dedicated as open space tracts or an easement or covenant encumbering the buffer. Such dedication, easement or covenant shall be recorded together with the land division and represented on the final plat, short plat or binding site plan;

- (3) In order to avoid the creation of nonconforming lots, each new lot shall contain at least one (1) building site that meets the requirements of this chapter, including buffer requirements for habitat conservation areas. This site must also have access and a sewage disposal system location that are suitable for development and does not adversely impact the fish and wildlife conservation area;
 - (4) After preliminary approval and prior to final land division approval, the Department may require the common boundary between a required buffer and the adjacent lands be identified using permanent signs. In lieu of signs, alternative methods of buffer identification may be approved when such methods are determined by the Department to provide adequate protection to the aquatic buffer.
- (k) Trails and Trail-Related Facilities. Construction of public and private trails and trail-related facilities, such as benches, interpretive centers, and viewing platforms, may be allowed in fish and wildlife habitat conservation areas or their buffers pursuant to the following standards:
- (1) Trails and related facilities shall, to the extent feasible, be placed on existing road grades, utility corridors, or other such previously disturbed areas;
 - (2) Trails and related facilities shall be planned to minimize removal of trees, shrubs, snags and important wildlife habitat;
 - (3) Viewing platforms, interpretive centers, benches and access to them shall be designed and located to minimize disturbance of wildlife habitat and/or critical characteristics of the affected conservation area;
 - (4) Trails, in general, shall be set back from streams so that there will be no or minimal impact to the stream from trail use or maintenance. Trails shall be constructed with pervious surfaces when feasible;
 - (5) Trails shall be generally limited to pedestrian use unless other more intensive uses, such as bike or horse trails, have been specifically allowed and mitigation has been provided. Trail width shall not exceed five (5) feet unless there is demonstrated need, subject to review and approval by the Department. Trails shall be constructed with pervious materials unless otherwise approved by the Department;
 - (6) Trails shall not be allowed to fully enclose a habitat area or buffer; and
 - (7) The Department may require closure of trails during critical spawning, migration or breeding time periods of the species present.
- (l) Utilities. Placement of utilities within designated fish and wildlife habitat conservation areas may be allowed pursuant to the following standards:
- (1) Utilities maintenance activities involving no material change in size or function shall be allowed within designated fish and wildlife habitat conservation areas, subject to best management practices;
 - (2) Construction of utilities may be permitted in fish and wildlife habitat conservation areas or their buffers, only when no feasible or reasonable alternative location is available and the utility corridor meets the requirements for installation, replacement of vegetation and maintenance outlined below, and as required in the filing and approval of an HMP which may be required by this chapter;
 - (3) Construction of sewer lines or on-site sewage systems may be permitted in fish and wildlife habitat conservation areas or their buffers when the applicant demonstrates it is necessary to meet State and/or local health code requirements, there are no other feasible alternatives available, and construction meets the requirements of this section. Joint use of the sewer utility corridor by other utilities may be allowed;
 - (4) New utility corridors shall not be allowed in fish and wildlife habitat conservation areas with known locations of federal or State-listed endangered, threatened or sensitive species, heron rookeries or nesting sites of raptors which are listed as State candidate except in those circumstances where an approved HMP indicates that the utility corridor will not significantly impact the conservation area;

- (5) New utility corridor construction and maintenance shall protect the environment of fish and wildlife habitat conservation areas and their buffers by the following:
- (i) New utility facilities, improvements, or upgrades to existing utility facilities should take place within existing improved rights-of-way or existing impervious surfaces so that they do not increase the amount of impervious surfaces within the habitat area;
 - (ii) New utility corridors shall be aligned when possible to avoid cutting or root damage to trees greater than twelve (12) inches in diameter at breast height (four (4) and one-half (1/2) feet) measured on the uphill side;
 - (iii) New utility corridors shall be revegetated with appropriate native or equivalent vegetation at not less than preconstruction vegetation densities or greater, immediately upon completion of construction or as soon thereafter as possible due to seasonal growing constraints. The utility shall ensure that such vegetation survives;
 - (iv) Any additional corridor access for maintenance shall be provided wherever possible at specific points rather than by parallel roads. If parallel roads are necessary, they shall be of a minimum width but no greater than fifteen (15) feet and shall be contiguous to the location of the utility corridor on the side away from the conservation area;
- (6) Utility corridor maintenance shall include the following measures to protect the environment of regulated fish and wildlife habitat conservation areas:
- (i) Utility towers should be painted with brush, pad or roller and should not be sandblasted or spray-painted, nor should lead-based paints be used;
 - (ii) Pesticides, Fertilizers and Herbicides. No pesticides or fertilizers may be used in fish and wildlife conservation areas or their buffers, except those herbicides approved by a licensed applicator in accordance with the safe application practices on the label.
- (m) Bank Stabilization. A stream channel and bank may be stabilized when naturally occurring earth movement threatens existing structures (defined as requiring a building permit pursuant to the applicable building code), public improvements, unique natural resources, public health, safety or welfare, or the only feasible access to property, and, in the case of streams and marine shorelines, when such stabilization results in maintenance of fish and wildlife habitat, flood control and improved water quality. Where bank stabilization is determined to be necessary, bioengineering or other nonstructural methods should be the first option for protection. Bulkheads and retaining walls may only be utilized as an engineering solution where it can be demonstrated that an existing residential structure cannot be safely maintained or set back without such measures, and that the resulting retaining wall is the minimum length necessary to provide a stable building area for the structure. A variance pursuant to BMC [20.58.030](#) must be obtained in all other cases. The Department may require that bank stabilization be designed by a professional engineer and geologist licensed in the State of Washington with demonstrated expertise in hydraulic actions of shorelines. Bank stabilization projects may also require a City grading permit and hydraulic project approval from the Washington Department of Fish and Wildlife. Nonstructural marine shoreline and stream bank protective techniques are preferred to bulkheads or other types of marine shoreline and stream bank armoring. Nonstructural techniques include but are not limited to vegetation plantings and bioengineering. Guidance for these projects can be found in the Washington Department of Fish and Wildlife's "Integrated Streambank Protection Guidelines Manual" for determining when, why, where, and what projects need to be completed to protect an eroding bank.
- (n) Fencing and Signs. Prior to approval or issuance of permits for land divisions and new development, the Department may require the common boundary between a required buffer and the adjacent lands be identified using fencing or permanent signs. In lieu of fencing or signs, alternative methods of buffer identification may be approved when such methods are determined by the Department to provide adequate protection to the buffer.

(o) Road/Street Repair and Construction. Any private or public road or street expansion or construction which is allowed in a fish and wildlife habitat conservation area or its buffer shall comply with the following minimum development standards:

- (1) No other reasonable or feasible alternative exists and the road or street crossing serves multiple properties whenever possible;
- (2) Expansion or construction of any private or public road shall only be allowed when adverse impacts cannot be avoided;
- (3) Public and private roads should provide for other purposes, such as utility crossings, pedestrian or bicycle easements, viewing points, etc.;
- (4) The road or street construction is the minimum necessary, as required by the Department of Public Works, and shall comply with the Department of Public Works and Utilities' standards; and
- (5) Construction time limits shall be determined in consultation with the Washington Department of Fish and Wildlife in order to ensure habitat protection.

(p) Other Allowed Uses in Fish and Wildlife Conservation Areas. Other activities may be allowed using the standard for a Category II wetland buffer as identified by BMC 20.14.330(d).

20.14.740 SPECIAL REPORTS.

Habitat Management Plan Requirements.

(a) General. If the City determines that impacts to habitats may occur as a result of a development project, a habitat management plan (HMP) shall be required. The applicant may choose to complete an HMP for a site-specific analysis to better determine the impact to habitat and to determine the appropriate buffer width and associated building setbacks for their project based on the site-specific analysis. The preparation and submission of this report is the responsibility of the applicant. The report shall rely on best available science as defined in WAC [365-195-900](#) through [365-195-925](#) and shall be prepared by a qualified professional who is a biologist with five (5) years of experience preparing reports for the relevant type of habitat. The City may retain a qualified consultant at the applicant's expense to review and confirm the applicant's reports, studies and plans. The HMP shall clearly demonstrate that greater protection of the functions and values of critical areas can be achieved through the HMP than could be achieved through providing the prescribed habitat buffers and building setbacks. An applicant may propose to implement an HMP as a means to protect habitat buffers associated with streams and/or fish and wildlife conservation areas. Approval for an HMP shall not occur prior to the consultation with the appropriate federal or State agencies.

(b) Intent. HMPs are primarily intended as a means to restore or improve buffers that have been degraded by past activity, and should preserve, and not reduce, existing high-quality habitat buffers. While not primarily intended as a means to reduce buffers, the HMP may propose a reduction of the habitat buffer width where it is shown that the HMP will comply with the other requirements of this section.

(c) Effect of Buffers. An HMP shall provide habitat functions and values that are greater than would be provided by the prescribed habitat buffers. When habitat buffers are a component of an HMP, they shall be at least the minimum size necessary to accomplish the objectives of the HMP. The HMP may propose, but the City shall not require, a habitat buffer containing a greater area than is required by the prescribed habitat buffer.

(d) Impact Mitigation. The HMP shall encompass an area large enough to provide mitigation for buffer reduction below the standard required buffers, and shall identify how the development impacts resulting from the proposed project will be mitigated as defined in BMC [20.14.750](#). The developer of the plan shall use the best available science in all facets of the analyses. ~~The Washington Department of Fish and Wildlife priority habitat and species management recommendations, and/or bald eagle protection rules outlined in WAC [232-12-292](#), as amended, may serve as guidance for this report.~~

(e) The assessment of habitats for the site and project shall at a minimum include the following information:

- (1) A map prepared at an easily readable scale, showing:
 - (i) The location of the proposed development site;
 - (ii) Property boundaries;
 - (iii) The relationship of the site to surrounding topographic, water, and cultural features;
 - (iv) Proposed building locations and arrangements;
 - (v) A legend which includes a complete legal description, acreage of the parcel, scale, north arrow, and date of map revision;
 - (2) Detailed description of vegetation on and adjacent to the project area and its associated buffer;
 - (3) 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;
 - (4) A discussion of any federal, State, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;
 - (5) A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;
 - (6) Enhancement of existing degraded buffer area and replanting of the disturbed buffer area with native vegetation;
 - (7) The use of alternative on-site wastewater systems in order to minimize site clearing;
 - (8) Retention of existing native vegetation on other portions of the site in order to offset habitat loss from buffer reduction;
 - (9) The need for fencing and signage along the buffer edge;
 - (10) 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 the mitigation sequencing required by this chapter; and
 - (11) A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring, maintenance, and enforcement programs.
- (f) When appropriate due to the type of habitat or species present or the project conditions, the Director may also require the habitat management plan to include:
- (1) An evaluation by an independent qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate;
 - (2) A request for consultation with the Washington Department of Fish and Wildlife or the local Native American Indian tribe or other appropriate agency; and
 - (3) Detailed surface and subsurface hydrologic features both on and adjacent to the site.
- (g) Mitigation Measures. Possible mitigation measures to be included in the report, or required by the Director, could include, but are not limited to:
- (1) Establishment of buffer zones;
 - (2) Preservation of critically important plants and trees;
 - (3) Limitation of access to habitat areas;
 - (4) Seasonal restriction of construction activities;
 - (5) Establishing phased development requirements; and
 - (6) Monitoring plan for a period necessary to establish that performance standards have been met. Generally this will be for a period of seven (7) to ten (10) years.
- (h) HMP Adequacy. The HMP shall demonstrate to the satisfaction of the City that the habitat functions and values are improved by implementation of the HMP. If there is a disagreement between the City and the applicant as to the adequacy of the HMP, the issue of plan adequacy shall be resolved by consulting

with the appropriate federal or State agency. If the federal or State agencies are not available in a timely manner, the applicant may choose to have the City refer the HMPs to a third-party consultant at the expense of the applicant. After consultation with such State departments or third-party consultant, the Director shall make a final decision on the adequacy of the HMP.

(i) Timing. An HMP must be developed and approved either prior to preliminary plat approval or issuance of the building permit, as applicable, and must be implemented before the City grants either final plat approval or an occupancy permit, as applicable.

20.14.750 MITIGATION STANDARDS AND CRITERIA.

(a) The applicant shall avoid all impacts that degrade the functions and values of a critical area or areas. Unless otherwise provided in this title, if alteration to 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 habitat management plan and SEPA documents, so as to result in no net loss of critical area functions and values.

(b) Mitigation shall be in-kind and on-site, when possible, and sufficient to maintain the functions and values of the critical area, and to prevent risk from a hazard posed by a critical area.

(c) Mitigation shall not be implemented until after the City's approval of an HMP that includes a mitigation plan, and mitigation shall be in accordance with the provisions of the approved HMP.

(d) Mitigation Sequencing. Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for in the following sequential order of preference:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (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 to habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
- (4) Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- (5) Compensating for the impact to habitat conservation areas by replacing, enhancing, or providing substitute resources or environments; and
- (6) Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Mitigation for individual actions may include a combination of the above measures.

(e) Mitigation Plan Requirements. When mitigation is required, the applicant shall submit for approval by the City a mitigation plan as part of the HMP. The mitigation plan shall include:

- (1) Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensation proposed and including:
 - (i) A description of the anticipated impacts to the critical areas and the mitigating actions proposed and the purposes of the compensation measures, including the site selection criteria, identification of compensation goals, identification of resource functions, and dates for beginning and completion of site compensation construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area;
 - (ii) 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; and
 - (iii) An analysis of the likelihood of success of the compensation project.

(2) 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 and whether or not the requirements of this title have been met.

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

- (i) The proposed construction sequence, timing, and duration;
- (ii) Grading and excavation details;
- (iii) Erosion and sediment control features;
- (iv) A planting plan specifying plant species, quantities, locations, size, spacing, and density; and
- (v) 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.

(4) Monitoring Program. The mitigation plan shall include a program for monitoring construction of the compensation project and for assessing a completed project (BMC [20.14.760](#), Monitoring and Contingency Plan). A protocol shall be included outlining the schedule for site monitoring (for example, monitoring shall occur in years one (1), three (3), five (5), and seven (7) after site construction), and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than five (5) years.

(5) Contingency Plan. The mitigation plan shall 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 (BMC 20.14.760).

(6) Financial Guarantees. The mitigation plan shall include financial guarantees, if necessary, to ensure that the mitigation plan is fully implemented. Financial guarantees ensuring fulfillment of the compensation project, monitoring program, and any contingency measures shall be posted in accordance with bonds to ensure mitigation, maintenance, and monitoring (BMC 20.14.760).

(f) Innovative Mitigation.

(1) The city may encourage, facilitate, and approve innovative mitigation projects that are based on the best available science. Advance mitigation or mitigation banking are examples of alternative mitigation projects allowed under the provisions of this section wherein one (1) or more applicants, or an organization with demonstrated capability, may undertake a mitigation project together if it is demonstrated that all of the following circumstances exist:

- (i) Creation or enhancement of a larger system of critical areas and open space is preferable to the preservation of many individual habitat areas;
- (ii) The group demonstrates the organizational and fiscal capability to act cooperatively;
- (iii) The group demonstrates that long-term management of the habitat area will be provided; and
- (iv) There is a clear potential for success of the proposed mitigation at the identified mitigation site.

20.14.760 MONITORING AND CONTINGENCY PLAN.

(a) A monitoring program shall be included as a part of the approved mitigation plan for a fish and wildlife habitat conservation area. To ensure that the performance standards of the approved mitigation plan have been met, the mitigation and/or buffer enhancement site(s) shall be monitored for a minimum of five (5) years. A longer monitoring period may be required by the City based on either the initial mitigation

plan or a review of subsequent monitoring reports. The monitoring reports shall be submitted on August 1st of each year during the monitoring period.

An acceptable surety device is required to ensure the applicant's compliance with the terms of the mitigation agreement.

Performance Surety. All mitigation and buffer enhancement shall be completed prior to final plat approval and/or building occupancy depending on the type of application. However, when improvements cannot be completed prior to final acceptance due to weather conditions which may negatively affect the success of the project, a performance surety may be used. The performance surety shall equal one hundred fifty (150) percent of the cost of the mitigation project, and the required improvements shall be installed in a satisfactory manner within six (6) months or less.

(1) **Maintenance Surety.** A maintenance surety shall be required on all mitigation projects to ensure that the improvement successfully survives the monitoring periods set above.

(i) **Mitigation Projects.** The amount of the maintenance surety shall be equal to fifteen (15) percent of the cost of the mitigation project and the term of the surety shall reflect the term of the monitoring program.

(ii) **Buffer Enhancement Projects.** The amount of the maintenance surety shall be equal to fifteen (15) percent of the costs of the enhancement project and the term of the surety shall reflect the term of the monitoring program.

(2) **Monitoring Deposit.** A cash deposit shall be submitted with all sureties prior to final acceptance of the project to cover the estimated City costs to review the yearly monitoring reports and conduct a site inspection to ensure the performance standards are being met.

(b) **Long-Term Maintenance.** To ensure the long-term success of the fish and wildlife habitat conservation area, the applicant or their heirs or successors shall be responsible for the long-term maintenance of the habitat area and its associated buffer. The habitat and buffer shall be kept clear of weeds, invasive plant material, lawn clippings, junk, debris, intrusions or the like.