

Appendix C. Critical Areas Regulations for Shoreline Areas

Intent. These regulations are to accompany the Shoreline Master Program and protect critical areas within shorelands as part of comprehensive development regulations. Local critical areas regulations that have been updated and adopted under Growth Management shall apply to shoreline areas pursuant to EHB 1563 signed into legislation on March 18, 2010 until adoption of this SMP or an SMP amendment approvable by Department of Ecology.

Critical Areas Definitions

Wetlands

"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 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.

Aquifer recharge areas are those areas that, due to the presence of certain soils, geology, and surface water, act to recharge ground water by percolation.

Fish and Wildlife Habitat Conservation Areas are areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5). These areas include:

- A. Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
- B. Habitats of local importance, including but not limited to areas designated as priority habitat by the Washington Department of Fish and Wildlife;
- C. Commercial and recreational shellfish areas;
- D. Kelp and eelgrass beds;
- E. Herring and smelt spawning areas;
- F. 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;
- G. 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;
- I. State natural area preserves and natural resource conservation areas; and

Flood Hazard Areas include **Frequently Flooded Areas** and areas within the 100-year flood plain as delineated on FEMA FIRM maps. They are lands in the floodplain subject to a one percent (1%) or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, and attenuation functions, in accordance with WAC 365-190-080(3). Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. Frequently flooded areas include, at a minimum, the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

Geologically Hazardous Areas are areas that may not be suited for development consistent with public health, safety, or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include: channel migration zones (CMZ), erosion, landslide, seismic, mine, and volcanic hazards

Critical Area Regulations for Critical Areas within Shoreline Jurisdiction

1. Critical areas information shall be available to shoreline property owners by the administrator or appointed City or Town official. Current maps shall be available for the general public use and viewing.
2. Any known or suspected critical area in the shoreline shall be disclosed by applicant.
3. The administrator shall review all shoreline application for the presence of critical areas.
4. A Critical Areas report may be required for any new development or substantial development in a suspected or known critical area in the shorelines. Critical Areas reports are subject to administrative approval prior to allowance of use or development. The report must be performed by a qualified professional approved by the administrator and the cost of such report will be borne by the applicant.
5. Critical areas in the shorelines shall be protected from new development impacts through the following standards and requirements:

Aquifer recharge areas

All uses and activities within designated aquifer recharge areas shall

- i. Commercial and industrial uses involving the processing, use, storage, or production of hazardous, toxic, or dangerous materials shall meet applicable federal, state, and local regulations within critical aquifer recharge areas because of the potential for introduction of those materials to ground water.

- ii. Agricultural and forest practices shall adhere to all applicable local, state, and federal laws regarding feedlots, pesticide and fertilizer application, forest conversions, and shall be conducted in a manner so as to limit introduction of contaminants to ground water.
- iii. All proposed activities within aquifer recharge areas must comply with the water source protection requirements of the federal Environmental Protection Agency, state Department of Health and the Okanogan County Health District.
- iv. The County Health District shall comply with any state or federally required well-head protection program for the city and town's public water supplies.
- v. Any application for a city or town permit for a use that utilizes or generates hazardous or toxic materials, shall be required to comply with state and federal regulations (the Clean Drinking Water Act and the Clean Water Act) that pertain to hazardous or toxic materials.
- vi. All household hazardous waste shall be disposed of according to Okanogan County Comprehensive Solid Waste Management Plan.
- vii. All new development activity shall comply with the minimum lot coverage required in that zone. When no minimum lot coverage is specified, and the proposed development is in an area identified as a critical aquifer recharge area, then a minimum of 50% of the land area within the boundaries of the aquifer recharge area shall be maintained in pervious surfaces. This allows for the continued recharging of the aquifer.

Geologically Hazardous Areas

All uses and developments within designated geologically hazardous areas (including channel migration zones (CMZ), erosion, landslide, seismic, mine, and volcanic hazards) shall not increase the hazard risk. Geologically hazardous steep slopes must meet the local jurisdictions determination of steep slopes in their current Critical Areas Ordinance.

- i. New development in the CMZ shall not be developed if it is demonstrated through a technical analysis performed by qualified engineer or geologist, licensed in the state of Washington, that development would likely require shoreline structural modification to avoid the risk posed by the hazard, such that if the analysis

recommends a foreseeable need for present or future shoreline stabilization for the benefit of safety to the structure and inhabitants, it shall be prohibited, provided;

1. measures to reduce shoreline erosion are allowed for existing development, provided that it is demonstrated that the erosion rate exceeds that which would normally occur in a natural condition and verified by a qualified geo-morphologist,
2. that the measure does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions, and
3. that the measure includes appropriate mitigation of impacts to ecological functions associated with the river or stream.

A setback or design standards shall be developed for the structure on or next to a geologically hazardous area on a case by case basis and shall conform to the setback requirements listed in Table 8.1 unless otherwise approved through an approved variance and it is shown that deviation from the normal setback is required to ensure safety and prevent additional hazards. Setback from geo-hazards such as steep slopes, erosion potential areas, landslide areas or any other geologically unstable surface in the shoreline shall be established through a technical Critical Areas report, approved by the administrator, and in no instances shall compromise the normal standard shoreline buffer requirements set forth in Table 8.1.

- ii. Pre-existing structures that are non-conforming to current setbacks in geologically hazardous areas shall be allowed to continue provided the expansion of any existing use or structure shall meet structural standards that ensure the safety of the structure and will not exasperate the hazard potential such as increase potential for erosion, run-off, sluffing further increasing the geological hazard.
- iii. A stormwater management plan may be required of anyone proposing to develop in a geologically hazardous area.
- iv. A geotechnical report and mitigation plan may be required to ensure no net loss of ecological function. See Section 8.03(E) – Shoreline Stabilization

Seismic hazards

Insert provisions from local seismic plans

Wetlands

Wetland buffers in shoreline areas shall be as follows:

- i. The Administrator may waive the typing requirement if the use or

structure is greater than 300 feet away from the OHWM of the wetland.

- ii. Alternative I - Shoreline uses with buffers of at least these widths shall not require functional analysis, providing the wetland has been delineated and categorized/typed by a qualified professional.

Table i(a)

Category of Wetland	Widths of Buffers
IV	50 ft
III	150 ft
II	200 ft
I	

- iii. Alternative II - Applicants may apply the buffer widths to width listed in Table iii(a) below based on intensity of land use listed in table iii(b), providing the wetland is delineated and typed by a qualified professional:

Table iii(a)

Category of Wetland	Buffer Width Based on Land Use Impact		
	Low	Medium	High
I	125	190	250
II	100	150	200
III	75	110	150
IV	25	40	50

Level of Impact from Proposed Change in Land Use	Types of Land Use Based on Zoning Designations
High	<ul style="list-style-type: none"> • Commercial • Urban • Industrial • Institutional • Retail sales • Residential (more than 1 unit/acre) • Conversion to high-intensity agriculture (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual

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	tilling and raising and maintaining animals, etc.) <ul style="list-style-type: none"> • High-intensity recreation (golf courses, ball fields, etc.) • Hobby farms
Moderate	<ul style="list-style-type: none"> • Residential (1 unit/acre or less) • Moderate-intensity open space (parks with biking, jogging, etc.) • Conversion to moderate-intensity agriculture (orchards, hay fields, etc.) • Paved trails • Building of logging roads • Utility corridor or right-of-way shared by several utilities and including access/maintenance road
Low	<ul style="list-style-type: none"> • Forestry (cutting of trees only) • Low-intensity open space (hiking, bird-watching, preservation of natural resources, etc.) • Unimproved trails • Utility corridor without a maintenance road and little or no vegetation management.

- iv. Alternative III - The applicants may alternatively determine the wetland buffer width based on intensity of the impacts, wetland function, or special characteristics located in the tables below, while implementing protection measures. This method requires a wetland rating and delineation to be performed. A critical areas report and mitigation management plan that shows that such a reduction will result in no net loss of wetland function will be required. Such report and plan must be prepared by a qualified professional and be based on the best available science and site specific conditions and analysis.

Table . Width of buffers needed to protect Category I wetlands

Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use (apply most protective if more than one criterion is met)	Other Measures Recommended for Protection
Natural Heritage Wetlands	Low - 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries No septic systems within 300 ft Restore degraded parts of buffer

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Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use (apply most protective if more than one criterion is met)	Other Measures Recommended for Protection
Bogs	Low - 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries Restore degraded parts of buffer
Forested	Buffer size to be based on score for habitat functions or water quality functions	If forested wetland scores high for habitat, need to maintain connectivity to other natural areas Restore degraded parts of buffer
Alkali	Low – 100 ft Moderate – 150 ft High – 200 ft	No additional surface discharges to wetland or its tributaries Restore degraded parts of buffer
High level of function for habitat (score for habitat 29 - 36 points)	Low – 100 ft Moderate – 150 ft High – 200 ft	Maintain connections to other habitat areas Restore degraded parts of buffer
Moderate level of function for habitat (score for habitat 20 - 28 points)	Low – 75 ft Moderate – 110 ft High – 150 ft	No recommendations at this time ¹
High level of function for water quality improvement (24 – 32 points) and low for habitat (less than 20 points)	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional surface discharges of untreated runoff
Not meeting any of the above characteristics	Low – 50 ft Moderate – 75 ft High – 100 ft	No recommendations at this time ³

Table **Width of buffers needed to protect Category II wetlands**

Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use (apply most protective if more than one criterion is met)	Other Measures Recommended for Protection
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Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use (apply most protective if more than one criterion is met)	Other Measures Recommended for Protection
High level of function for habitat (score for habitat 29 - 36 points)	Low - 100 ft Moderate – 150 ft High – 200 ft	Maintain connections to other habitat areas
Moderate level of function for habitat (score for habitat 20 - 28 points)	Low - 75 ft Moderate – 110 ft High – 150 ft	No recommendations at this time ²
High level of function for water quality improvement and low for habitat (score for water quality 24 - 32 points; habitat less than 20 points)	Low - 50 ft Moderate – 75 ft High – 100 ft	No additional surface discharges of untreated runoff
Vernal pool	Low - 100 ft Moderate – 150 ft High – 200 ft OR Develop a regional plan to protect the most important vernal pool complexes – buffers of vernal pools outside protection zones can then be reduced to: Low - 40 ft Moderate – 60 ft High – 80 ft	No intensive grazing or tilling in the wetland
Riparian forest	Buffer width to be based on score for habitat functions or water quality functions	Riparian forest wetlands need to be protected at a watershed or sub-basin scale (protection of the water regime in the watershed) Other protection based on needs to protect habitat and/or water quality functions

Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use (apply most protective if more than one criterion is met)	Other Measures Recommended for Protection
Not meeting above characteristics	Low - 50 ft Moderate – 75 ft High – 100 ft	No recommendations at this time ²

Table Width of buffers needed to protect Category III

Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use	Other Measures Recommended for Protection
Moderate level of function for habitat (score for habitat 20 - 28 points)	Low - 75 ft Moderate – 110 ft High – 150 ft	No recommendations at this time ¹
Not meeting above characteristic	Low - 40 ft Moderate – 60 ft High – 80 ft	No recommendations at this time ¹

Table Width of buffers needed to protect Category IV wetlands

Wetland Characteristics	Buffer Widths by Impact of Proposed Land Use	Other Measures Recommended for Protection
Score for all 3 basic functions is less than 30 points	Low - 25 ft Moderate – 40 ft High – 50 ft	No recommendations at this time ³

Administrative Reduction of Standard Wetland Buffer Area Width:

The Administrator shall have the authority to reduce buffer widths established through Alternative I, II or III on a case-by-case basis for single family dwelling units which would be placed on existing legal lots of record in place at the time of adoption of this Program; provided that the general standards for avoidance and minimization per Section XX.YY shall apply, and when the applicant demonstrates to the satisfaction of the Administrator that all of the following criteria have been met:

- The buffer reduction shall not result in a net loss of functions of the habitat conservation area or buffer.
- The maximum buffer width reduction allowed shall not exceed twenty-five (25) percent total required buffer established in Chapter 8 for Zone 1 & 2.

- The buffer width reduction is contingent upon the submittal and approval of a fish and wildlife habitat conservation area management and mitigation plan in conformance with Chapter 11.
- Sites which have had buffer widths reduced or modified, by any prior action administered by local jurisdiction are not eligible for the provisions of this section. Sites which utilize this provision are not eligible for any future buffer width reductions, under any provision of this Program, except as administered under Chapter 11, Variances, of this Program.

Buffer Integrity. Except as otherwise specified, wetland buffer zones shall be retained in their natural condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation ~~shall~~ may be required at a 1:1 mitigation ratio (area based ratio – 1sq ft removal: 1sq ft mitigation).

Permitted Uses in a Wetland Buffer Zone. Activities shall not be allowed in a buffer zone except for the following:

- Activities having minimal adverse impacts on buffers and no adverse impacts on regulated wetlands. These may include but are not limited to: low intensity, passive recreational activities such as trails, wildlife watching blinds, short term scientific or educational activities, and sports fishing or hunting;
- With respect to Category III and IV wetlands, stormwater management facilities having no reasonable alternative on-site location; or
- Existing agricultural activities, normal or necessary to general farming conducted according to best management practices including the raising of crops or grazing of livestock.

Fish and Wildlife Habitat Conservation Areas

Areas meeting the definition of Critical Fish and Wildlife Habitat Areas must be identified in all shoreline permit reviews and protected through the following:

- a. An approved Fish and Wildlife Habitat Management Plan and/or
 - b. Mitigation Management Plan and/or
 - c. SMP buffer requirements
- ii. All buffer requirements developed in this SMP shall satisfy as protective measures for known aquatic, wetland, and riparian habitats as identified by federal and state agencies.

- iii. Upland habitats identified in the shoreline jurisdiction as priority habitat shall be protected through a habitat management plan in coordination with the local SMP administrator and Department of Fish and Wildlife as part of any shoreline permit, including statement of exemptions. Upland habitats limited to Zone 1 of the Vegetative Buffer shall be protected through standard buffer regulations and may be conditioned for further protection based on administrative review and agency consultation.

Flood Hazard Reduction

Flood Hazard Areas include ***Frequently Flooded Areas*** and areas within the 100-year flood plain as delineated on FEMA FIRM maps. They are lands in the floodplain subject to a one percent (1%) or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, and attenuation functions, in accordance with WAC 365-190-080(3). Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. Frequently flooded areas include, at a minimum, the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

1. Normal and routine repair and maintenance of flood control structures⁴ in existence on the date of adoption of this SMP shall be allowed