Date:	September 23, 2024
To:	Chris Pasinetti, AICP, Community Development Director, City of Enumclaw
From:	Erika Shook, AICP, Senior Environmental Planner, Jacobs Tess Amen, Biologist, Jacobs
Subject:	**City of Enumclaw Comprehensive Plan Update, Critical Areas Best Available Science**

In 1995, an amendment to the Washington State Growth Management Act (GMA) (as detailed in Revised Code of Washington 30.70A.172) mandated that cities shall use "Best Available Science" (BAS) when developing policies and regulations to protect critical areas and give "special consideration" to "measures necessary to preserve or enhance anadromous fisheries." The GMA identifies the five following critical areas:

- Wetlands
- Critical Aquifer Recharge Areas
- Frequently Flooded Areas
- Geologically Hazardous Areas
- Fish and Wildlife Habitat Conservation Areas

This technical memorandum summarizes, and provides references to BAS, for each critical area identified by the GMA for use in the City of Enumclaw's (City's) Comprehensive Plan update.

1. Wetlands

a. Definition

Wetlands function at both a landscape and site scale to improve water quality and flood storage, and they serve as valuable habitat for plants and animals (Shelton et al. 2005). These functions are particularly valuable in urban settings; though urbanization has the potential to stress and degrade wetland systems. Per Enumclaw Municipal Code (EMC) 15.05, "regulated wetlands" are defined as the following:

Ponds 20 acres of less, including their submerged aquatic beds, and those lands defined as wetlands under the Federal Clean Water Act, 33 USC Section 1251 et seq., and rules promulgated pursuant thereto, and be those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Regulated wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands created as mitigation and wetlands modified for approved

land use activities shall be considered as regulated wetlands. Regulated 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. The applicant shall bear the burden of proving that the site was not previously a wetland. For identifying and delineating a regulated wetland, Enumclaw shall use the Federal Clean Water Act, 33 USC Section 1251 et seq., wetlands definition, and utilize identification and delineation criteria as currently used by the Department of Ecology.

b. Best Available Science

BAS for wetlands in Washington State is based on a two-volume document developed by Washington's Department of Ecology (Ecology) and Washington Department of Fish and Wildlife (WDFW) titled, *Wetlands in Washington State; Volume 1: A Synthesis of Science* and *Wetlands in Washington State* (Sheldon et al. 2005) and *Wetlands in Washington State; Volume 2: Guidance for Protecting and Managing Wetlands* (Granger et al. 2005).

Wetlands perform valuable functions that can be grouped into three categories: functions that improve water quality (for example, nutrient cycling, removing sediment, and sediment/toxicant retention), functions that alter flow patterns within a watershed (for example, flood control and groundwater recharge/discharge), and functions that provide habitat for plants and wildlife (including wetland-associated mammals, anadromous and resident fish, migratory and resident birds, amphibians, and invertebrates) (Sheldon et al. 2005).

Ecology has produced the *Washington State Wetland Rating System for Western Washington 2014 Update* using BAS to classify wetlands based on their functions, sensitivity to disturbance, importance, uniqueness, and capacity to be replaced (2014). The Washington State wetland rating system designates wetlands as Category I, Category II, Category III, and Category IV as follows:

- Category I—Category I wetlands are defined by several criteria. They are unique or rare, exhibit a higher level of sensitivity to disturbance compared to most wetlands, are relatively undisturbed, possess ecological characteristics that cannot be replicated within a human lifetime, or provide a high level of functions.
- Category II—Category II wetlands are challenging but not impossible to replace and provide elevated levels of some functions.
- Category III—Category III wetlands provide a moderate level of functions (scoring between 16 and 19 points using the Washington State wetland rating

system), can usually be sufficiently replaced with a carefully considered mitigation plan, or are interdunal wetlands between 0.1 and 1-acre in size.

- Category IV—Category IV wetlands exhibit the lowest level of functions (scoring less than 16 points) and are generally severely disturbed. In most cases, these wetlands are replaceable and improvable.

Wetland buffers are vegetated areas directly adjacent to wetlands. These buffers can reduce the impacts to wetlands from adjacent land uses through physical, chemical, or biological processes (Hruby 2013). Buffers also offer terrestrial habitat for species that are primarily aquatic but require terrestrial environments for their survival, such as amphibians. Requiring specific buffer widths is one of the methods employed by local jurisdictions to preserve the functions and values of wetlands.

Ecology's *Wetland Guidance for Critical Areas Ordinance (CAO) Updates* provides BAS related to wetland buffers and their regulation, building upon Ecology's *Update on Wetland Buffers: The State of the Science, Final Report* (updated in 2014) and Appendix 8-C of *Wetlands in Washington State; Volume 2: Guidance for Protecting and Managing Wetlands* (hereafter referred to as Appendix 8-C) (Ecology 2022; Hruby 2013; Granger et al. 2005). *Wetland Guidance for Critical Areas Ordinance (CAO) Updates* presents the following three different regulatory approaches to determine buffer widths:

- Buffer Option 1—This approach provides the most flexibility and site-specific buffers, based on three factors: wetland category, the level of impacts from adjacent land uses, and the functions or special characteristics of the wetland that need to be protected, as determined by Ecology's Wetland Rating System (Hruby 2014-a; Hruby 2014-b). Buffer Option 1 provides larger buffer widths for wetlands with higher habitat scores because BAS indicates that protecting habitat functions requires the largest buffer widths.
    - With this option, reduction in buffer widths is achievable through the provision of a habitat corridor and implementation of minimization measures to reduce the level of impact from adjacent proposed or existing land uses
        - The reduced buffer widths should not be used in conjunction with other reductions or variances.
        - When these criteria are not met, wider buffers are applied.
        - This option requires protection of a habitat corridor (such as a stream corridor). The habitat corridor width should be a minimum of 100 feet and connect wetlands that score ≥6 habitat points with any of the following,

- A legally protected, relatively undisturbed, and vegetated area (e.g., Priority Habitats, other compensation sites, wildlife areas/refuges, or national, county and state parks where they have management plans with identified areas designated as Natural, Natural Forest, or Natural Area Preserve).
- An area that is the site of a Watershed Project identified within and fully consistent with a Watershed Plan, as defined by RCW 89-08-460.
- An area where development is prohibited per the provisions of the local shoreline master program.
- An area with equivalent habitat quality that has conservation status in perpetuity, in consultation with WDFW.

    - Buffer Option 1 does not consider land use impact in the buffer widths based on the assumption that the majority of urban and many rural land uses will result in high or moderate impact.
        - If the jurisdiction has uses/development that can be considered low impact, then a narrower buffer adjacent to low impact uses only.

- Buffer Option 2—This option bases wetland buffer widths on both the wetland category and level of impact from the adjacent proposed or existing land use (that is, low, medium, and high). This option reduces regulatory flexibility by removing options for buffer averaging and buffer reductions through the establishment of corridors and minimization measures.
- Buffer Option 3—This option is based only on the wetland category, providing the simplest but least flexible option. Using this option, buffers must be large enough to protect the most vulnerable wetlands from the severest land use impacts. This option offers minimal adaptability, because all types of adjacent land use are considered as having an equivalent level of impact, disregarding a wetland's habitat score.

c. Recommendations

The City has adopted the most recent Washington Wetland Rating system; however, the method to determine buffer widths found in EMC 19.02.090.C has not been updated and is inconsistent with Appendix 8-C.

It is recommended that the City adopt the Buffer Option 1 methodology outlined by Ecology since it offers adaptable buffer width standards based on wetland category, level of impacts from adjacent/existing land uses, and providing protection for wetland functions or special characteristics. This is the buffer width methodology used by other local jurisdictions, including (but not limited to) King County, Pierce County, Buckley, Black Diamond, and Tacoma.

2. Critical Aquifer Recharge Areas

a. Definition

Critical aquifer recharge areas are intended to protect groundwater that serves as a supply for drinking water and freshwater for streams, lakes, estuaries, wetlands, and springs and the ecosystems that these areas support (EPA 1995). Per EMC 15.05, critical aquifer recharge areas are defined as the following:

> *"…those areas that have been identified as having a critical recharging effect on aquifer use for potable water in community water systems."*

Critical aquifer recharge areas are categorized as the following by the City according to EMC 19.02.080:

- *Category I critical aquifer recharge areas include those mapped areas that Enumclaw has determined are highly susceptible to ground water contamination and that are located within a sole source aquifer or a wellhead protection area;*
- *Category II critical aquifer recharge areas include those mapped areas that Enumclaw has determined:*
    - *Have a medium susceptibility to ground water contamination and are located in a sole source aquifer or a wellhead protection area; or*
    - *Are highly susceptible to ground water contamination and are not located in a sole source aquifer or wellhead protection area*
- *Category III critical aquifer recharge areas include those mapped areas that Enumclaw has determined have low susceptibility to ground water*

b. Best Available Science

Aquifer recharge occurs when precipitation, infiltration from water bodies (such as lakes, wetlands, streams, and irrigation), or snowmelt seeps into the ground, contributing to the underground water supply available for wells (Ecology 2021). Contrastingly, discharge areas are locations where groundwater intersects the ground surface and flows out through sources such as wetlands, streams, lakes, estuaries, or ocean shores. Additionally, wells, particularly those employed by municipalities to extract larger volumes of water, can function as discharge areas.

Aquifers occur as either confined or unconfined sources of ground water. In an unconfined aquifer, the water table is the upper boundary, with no intervening aquitard (i.e., a geologic formation that does not readily transmit water) or aquiclude (i.e., a geologic formation allowing for the transmission of water) between the water and the ground surface. Conversely, a confined aquifer is located deeper underground and is separated from the surface by an aquitard or aquiclude. As water works its way down from the ground surface, it is unable to enter a confined aquifer because an impermeable material, such as clay or rock, blocks it. Much of the Enumclaw area has an unconfined aquifer over another confined aquifer because the Osceola mudflow is impervious. This creates a high water table (i.e., unconfined aquifer) near the surface.

The vulnerability of an aquifer is based on its susceptibility to contamination and the quantity of contaminants present. An aquifer's susceptibility relates to the ease through which water can infiltrate from the surface into the aquifer (Cleary and Cleary 1991). In practice, this means a highly susceptible aquifer (that is, one that readily receives water) is prone to contamination, dependent on the contaminants present. Contaminant loading measures the amount of contaminants in an aquifer's recharge areas. Contaminants can include chemicals used in industrial or household applications (if improperly used) and some naturally occurring sources like saltwater.

c. Recommendations

The City has categorized critical aquifer recharge areas (CARAs) in relation to their susceptibility to contamination and contaminant loading and CARAs have been mapped per these definitions. These CARAs areas are identified via publicly available maps and by the City's Water System Comprehensive Plan. The City should evaluate activities that pose contamination risks or withdrawals that threaten future supply (for drinking water, streams, and wetlands) and they should be called out within EMC Article IV. *Development for Critical Areas*.

3. Frequently Flooded Areas

a. City of Enumclaw Definition

Frequently flooded are floodplains and flood prone areas that represent a benefit to Enumclaw residents and fish and wildlife in terms of habitat; however, they can also pose a potential risk to public safety. According to WAC 365-190-030(8), frequently flooded areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface. Frequently flooded areas are regulated to manage potential risk to public safety and, per EMC 15.04, are defined as the following:

> *"Floodplains and other areas subject to a one percent or greater chance of flooding in any given year."*

b. Best Available Science

Flooding is a naturally occurring process that leads to the formation of floodplains. When flood waters overtop streambanks, the velocity of the water outside of the channel slows compared to the velocity of the stream. This results in the deposition of sediment carried by the overflow, which contributes to the creation of a floodplain (Dunne and Leopold 1978; Knighton 1998). Floodplains provide numerous valuable functions, including flood storage; flood conveyance; reduction of excessive erosion; reduction of sediment deposition into waterbodies; groundwater recharge and discharge; interception and treatment pollutants; fish, wildlife, and plant habitat; carbon sequestration; micro-climate modification; and recreational and educational opportunities (Kusler 2011).

Floodplain management typically focuses on a no adverse impact strategy. In practice, this means a floodplain property owner is responsible for ensuring their land use activities do not negatively impact onsite flood storage or increase flood risk to neighboring areas (ASFPM 2003). This strategy is often implemented by requiring no net increase in flood elevations, which helps protect floodplain functions and promotes floodplain restoration (like reconnecting side channels and reducing armoring).

c. Recommendations

Risk and hazards associated with frequently flooded areas can be reduced by adopting land use policies that encourage development outside of mapped floodplains.

4. Geologically Hazardous Areas

a. Definition

Geologically hazardous areas are areas where the potential for erosion, landslides, earthquakes, or other geological events make them unsuitable for locating development in alignment with public health and safety considerations. Per EMC 19.02.070, the City has determined that three of the geologically hazardous areas listed in WAC 365-190-120 are "relevant to the city." These are erosion hazard areas, landslide hazard areas, and seismic hazard areas. The other geologic hazard areas described in WAC 365-190-120 are volcanic hazard areas and mine hazard areas. Per EMC 19.02.070, the City erosion hazard areas and landslide hazard areas are defined as the following:

- Erosion hazard area—*Areas identified as having high or very high water erosion hazard by the U.S. Department of Agricultural Soil Conservation Service as supplied by the SCS office*
- Landslide hazard area—*Areas potentially subject to landslides based upon the following combination of geologic, topographic and hydrologic factors:*
    - *Areas of historic failing including:*

- *Those areas delineated by the U.S. Department of Agriculture Soil Conservation Service as having "severe" limitations for building site development;*
- *Those areas mapped as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources Division of Geology and Earth Resources;*
- *Areas with all three of the following characteristics:*
    - *Slopes of 15 percent gradient or greater; and*
    - *Hillsides intersecting geologic contacts with a relatively permeable sediment overlaying a relatively impermeable sediment or bedrock; and*
    - *Springs or ground water seepage;*
- *Areas that have shown movement during the Holocene Epoch or which are underlain or covered by mass wastage debris of the epoch;*
- *Slopes that are parallel or subparallel to planes or weakness in subsurface materials;*
- *Privately owned areas with slopes that have gradients greater than 80 percent subject to rock fall during seismic shaking*

EMC 19.02.070 does not define or outline how to identify seismic hazard areas.

b. Best Available Science

- Erosion hazard area—Within the City, erosion hazard areas are most likely to occur within riverine environments, where erosion is usually related to the channel migration zone (Newman 2018). Channel migration zones are where a stream or river is expected to move naturally over time, within the floodplain.

  While erosion is a natural process, excessive erosion (which can be caused by anthropogenic effects such as vegetation clearing, redirection of drainage, and new impervious surface resulting in increased surface water runoff) and associated sediment deposition can detrimentally impact stream channels, shorelines, and the flora and fauna that use these systems (Booth 1990; Booth 1991; Nelson and Booth 2002). The magnitude of erosion hazard can be impacted by soil type, topography, vegetation, rainfall, and surrounding land use and development activity.

- Landslide hazard areas—Landslides encompass a variety of processes that involve the downward and outward movement (such as, sliding, toppling, falling, or spreading) of materials that compose slopes (USGS 2004). While landslides are a natural process that help deliver woody material and gravel to streams, they pose a significant threat to human safety and development.

  Three landslide types are common within the Puget Sound region and include rapid-shallow landslides, block fall landslides, and deep-seated landslides (King County 2004). The most commonly observed type of landslide is the rapid-shallow landslide that usually occur in response to heavy rainfall (Tubbs 1974; Thorsen 1987). This is because past glacial deposits in the region have often resulted in surface layers that are more permeable than the underlaying material (often bedrock), leading to water perching between the two layers. When heavy precipitation events occur, the permeable upper layer is rapidly infiltrated, while the lower layer remains stable, causing the upper layer to slide over it (USGS 2004; Varnes 1978). Block fall landslides are more common where the base of a slope has eroded due to streamflow or wave energy, while deep-seated landslides involve the movement of substantial blocks of soil and underlying substrate.

  Vegetation can help to protect slope stability by reducing erosion, strengthening the soils through their root systems, and intercepting rainfall—all of which inhibit landslides. (Schmidt et al. 2001; Myers 1993).

- Seismic hazard areas—WAC 365-190-030(18) and 190-120(7) describe seismic hazard areas as those "*subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement or subsidence, soil liquefaction, surface faulting, debris flows, lahars, or tsunamis*." Areas with the greatest risks associated with seismic activity (including settlement and soil liquefaction) are underlain by low density, cohesionless soils, and usually associated with a shallow groundwater table (Newman 2018). Seismic activity can cause direct and indirect damage through ground shaking, surface faulting, subsidence and uplift, ground failure, landslides, liquefaction, differential compaction, and water waves (Newman 2018; King County 2004).

  The City is within the Puget Sound Lowlands, which lies within the Cascadia Subduction Zone (CSZ). The CSZ is made up of a series of tectonic plates that cause daily seismic activity (mostly undetectable) and has the potential to cause a large thrust earthquake in the future (possibly as large as Magnitude 9.0 [King County 2004; Stanley et al. 1999]). Additionally, the Tacoma Fault, Seattle Fault, and Western Rainier Seismic Zone are in proximity to the City (WDNR 2023).

The Washington Geological Survey (a branch of WDNR) maintains the Washington Geologic Information Portal, which provides mapping of active faults, liquefaction susceptibility, seismic site class (which denotes how the ground will respond to seismic shaking, used to determine required levels of construction), and locations/records of historical earthquake damage (WDNR 2023). This resource shows that most of the City lies within predicted 7.0 shaking intensity (also known as Modified Mercalli Intensity) areas associated with the CSZ, Tacoma Fault, and Seattle Fault.

c. Recommendations

- Unlike erosion hazard areas and landslide hazard areas, there is not a clear definition within EMC 19.02.070 for seismic hazard areas. Consider elaborating on how to identify a seismic hazard area, such as the definition presented in King County Code 21A.06.1045: "*Seismic hazard area: an area subject to severe risk of earthquake damage from seismically induced settlement or lateral spreading as a result of soil liquefaction in an area underlain by cohesionless soils of low density and usually in association with a shallow groundwater table.*"
- There are currently no development standards within EMC Article IV. *Development for Critical Areas* for geologically hazardous areas. Consider adding development standards for such areas as to mitigate the risks associated with developing in these geologically hazardous areas (which might include language that specifies that mitigation shall meet the City's desired level of hazard, risk level, or performance).
- Consider that the effects of climate change are likely to impact geological processes in the Puget Sound region, including higher frequency of landslides and erosion because of declines in snowpack and increased frequency and intensity of heavy rain events (Mauger et al. 2020).
- Consider how erosion hazard policy is related to tree retention policy and landscaping codes. Vegetation retention and planting is essential to stabilizing soils, thereby reducing erosion risks.

5. Fish and Wildlife Habitat Conservation Areas

a. Definition

Fish and Wildlife Habitat Conservation Areas (FWHCAs) include terrestrial and aquatic habitats that support the survival of fish and wildlife. It is critical to safeguard these ecosystems because habitat loss poses the greatest threat to many species. Per EMC 15.04, FWHCAs are defined as the following:

1. *Areas with which endangered, threatened and sensitive species have a primary association.*
2. *Habitats and species of local importance which 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 alteration such as cliffs, talus and wetlands. Species of local importance are those species that are of local concern due to their population status or their sensitivity to habitat manipulation or that are game species.*
3. *Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat. These do not include ponds deliberately designed and created from dry sites such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds (of less than three years' duration) and landscape amenities. However, naturally occurring ponds may include those artificial ponds intentionally created from dry areas in order to mitigate conversion of ponds, if permitted by a regulatory authority.*
4. *Lakes, ponds, streams and rivers planted with game fish, including fish planted under the auspices of a federal, state, local or tribal program or which supports priority fish species as identified by the Department of Fish and Wildlife.*

EMC 19.02.100 states that the City only supports two types of habitat designated as FHWCAs, stating, "*The two types are stream habitat and buffers (riparian areas) adjacent to regulated streams or waterbodies.*" The definition of FHWCAs per EMC is consistent with the information presented in WAC 365-190-130 (excluding commercial and recreational shellfish areas, kelp and eelgrass beds, and herring, smelt and other forage fish spawning areas) as the City does not support saltwater habitat.

b. Best Available Science

Per WAC 365-190-130, FWHCAs are lands designated and managed to ensure the preservation of viable populations of specific species within their natural geographic ranges over the long term and to prevent the formation of isolated subpopulations. Protecting FWHCAs, creating new FWHCAs, and reducing fragmentation of existing habitat corridors is essential for the sustained survival and growth of specific fish and wildlife species.

The City contains both aquatic and terrestrial FHWCAs that support fish, bird, and mammal species based upon the following BAS:

i. Endangered, Threatened, and Sensitive Species Primary Association Areas

Table 1 shows species known or suspected to occur within the City that are listed as threatened, endangered, or are candidates for listing under the federal or state Endangered Species Act (ESA) and bird species that are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (as defined in WAC 232-12-297 and 16 U.S.C. § 1532). This information was gathered using the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation tool and the National Marine Fisheries Service Protected Resources Application (USFWS n.d.; NMFS n.d.).

Table 1. ESA State and Federal Listed, Sensitive, and Candidate Species Known or Suspected to Occur in the City of Enumclaw

Species	Listing Status (Federal/State)	Regulatory Agency	Regulation	Designated Critical Habitat in City of Enumclaw?
Mammals				
Gray Wolf (*Canis lupus*)	Endangered (Federal)	USFWS	ESA Section 7	None
Birds				
Marbled Murrelet (*Brachyramphus marmoratus*)	Threatened (Federal)	USFWS	ESA Section 7	None
Streaked Horned Lark (*Eremophila alpestris strigata*)	Threatened (Federal)	USFWS	ESA Section 7	None
Yellow-billed Cuckoo (*Coccyzus americanus*)	Threatened (Federal)	USFWS	ESA Section 7	None
Bald Eagle (*Haliaeetus leucocephalus*)	None	USFWS	Golden Eagle Protection Act & MBTA	None
Golden Eagle (*Aquila chrysaetos*)	Non-BCC, vulnerable	USFWS	Golden Eagle Protection Act & MBTA	None
Black Swift (*Cypseloides niger*)	None	USFWS	MBTA	None
California gull (*Larus californicus*)	None	USFWS	MBTA	None
Evening Grosbeak (*Coccothraustes vespertinus*)	None	USFWS	MBTA	None

Lesser Yellowlegs (*Tringa flavipes*)	None	USFWS	MBTA	None
Olive-sided Flycatcher (*Contopus cooperi*)	None	USFWS	MBTA	None
Rufous Hummingbird (*Selasphorus rufus*)	None	USFWS	MBTA	None
Western Grebe (*Aechmophorous occidentalis*)	None	USFWS	MBTA	None

Species	Listing Status (Federal/State)	Regulatory Agency	Regulation	Designated Critical Habitat in City of Enumclaw?
Fish				
Bull Trout (*Salvelinus confluentus*)	Threatened (Federal)	USFWS	ESA Section 7	None
Steelhead [Puget Sound DPS] (*Oncorhynchus mykiss*)	Threatened (Federal)	NOAA	ESA Section 7	Boise Creek and Newaukum Creek
Chinook [Puget Sound ESU] (*Oncorhynchus mykiss*)	Threatened (Federal)	NOAA	ESA Section 7	Boise Creek and Newaukum Creek
Coho (*Oncorhynchus kisutch*)	Candidate (Federal)	NOAA	ESA Section 7	None
Invertebrates				
Monarch Butterfly (*Danaus plexippus*)	Candidate (Federal)	USFWS	ESA Section 7	None

BCC = Bird of Conservation Concern
Non-BCC = Non-Bird of Conservation Concern
DPS = distinct population segment

ii. Priority Habitats and Species Association Areas

The Priority Habitats and Species (PHS) database undergoes regular updates, incorporating input from WDFW field biologists and other scientists. It serves as a repository of the best available science on the geographic distribution of wildlife species and habitats with special status in Washington. WDFW identifies PHS habitats as conservation and management priorities due to high density and diversity of fish and wildlife species, vital habitat functions, significance to priority species, restricted distribution or scarcity, susceptibility, or cultural significance (that is, commercial or recreational value) (Newman et al. 2018; WDFW 2008).

PHS maps areas in northeast and south Enumclaw as habitat for priority species Rocky Mountain elk (*Cervus elaphus nelson*) and elk (*Cervus elaphus*) (identified as Green/Cedar river winter elk range and White River elk range, respectively) (WDFW n.d.). Additionally, agricultural fields that flood in the winter north and south of SE 448th St. in the City are shown as habitat for waterfowl (including dabbling ducks, geese, and swans).

Naturally Occurring Ponds Under 20 Acres with Submerged Aquatic Beds that Provide Fish or Wildlife Habitat

Naturally occurring ponds less than 20 acres provide critical breeding habitat for a number of native amphibians that breed in still water (Leonard et al. 1993). These native amphibians include Northwestern Salamander (*Ambystoma gracile*), Long Toed Salamander (*Ambystoma macrodactylum*), Western Toad (*Anaxyrus boreas*), Pacific Treefrog (*Pseudacris regilla*), Northern Red-Legged Frog (*Rana aurora*), Cascade Frog (*Rana cascadae*), Oregon Spotted Frog (*Rana pretiosa*), and Roughskin Newt (*Taricha granulosa*) (Hayes et al. 2008). Aside from Oregon Spotted and Cascade Frogs, these amphibians follow a seasonal cycle where they reproduce in lentic habitats (that is, still, non-flowing waterbodies) and then transition into terrestrial habitats for a large part of their nonbreeding season. Disturbed connectivity between smaller ponds used to breed and larger summer, fall, and overwintering waterbodies can result in significant amphibian mortality (McAllister et al. 1999).

It is difficult to ascertain the number of naturally occurring ponds less than 20 acres with submerged aquatic beds serving as wildlife habitat in the City. However, these areas are currently protected as waters or wetlands and are not specifically called out for protection as a FWHCA.

Waters Planted with Game Fish

Within the City, there are no waters planted with game fish by WDFW.

Riparian areas and buffers

Riparian areas include lakes, streams, and rivers and their associated active flood plains, channel migration zones, wetlands, and adjacent contributing management areas. These features are typically designated by local critical area ordinances and protected by a buffer to protect ecosystem functions. Riparian areas provide ecosystem functions that affect aquatic habitats, including stream bank stability, stream shading, litter fall, and coarse wood debris (WDFW 2009). **Riparian areas are critical to the survival of fish and salmonid species**, which require healthy waters to survive throughout their various life stages. This means streams and rivers have clean and cool, with a variety of habitats providing fish species with opportunities to rest, hide from predators, and reproduce (that is, spawn) (WSRCO 2020). In addition to habitat benefits, riparian areas also provide benefits to the community, including moderating flood flows and temperatures and removing pollutants.

WDFW publications ***Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications*** and ***Riparian Ecosystems*** and ***Riparian Ecosystems,***

Volume 2: Management recommendations provide BAS related to riparian areas and associated buffers (which WDFW refers to as riparian management zones) and their regulation (Quinn et al. 2020, Rentz et al. 2020).

WDFW recommends the following to approach for managing riparian systems and their buffers (Rentz et al. 2020):

- Shift terminology from the concept of "stream buffers" to riparian management zones (RMZs). An RMZ is defined as "a scientifically based description of the area adjacent to rivers and streams that has the potential to provide full function based on the site potential tree height (SPTH) conceptual framework" (Quin et al. 2020). The objective of an RMZ is to provide a wide enough space to potentially provide full riparian function. While stream buffers are regulated to protect streams, they may not provide full riparian function. WDFW recommends that a RMZ be delineated on a site-specific basis, measured from the outer edge of the channel migration zone (where present) or from the ordinary high water mark, when a channel migration zone is not present. The SPTH of an area is "…the average maximum height of the tallest dominant trees (200 years or older) for a given site class." When the SPTH of an area is less than 100 feet, WDFW recommends a 100 foot minimum RMZ width based on the minimum area necessary to provide biofiltration and infiltration of runoff, shade, and wood recruitment.
- Delineate regulatory riparian buffers that remain and identify degraded areas for restoration. WDFW recommends the use of 200-year Site Potential Tree Height ($SPTH_{200}$) to determine the width of the riparian management zone or buffer for all stream types. WDFW provides an Online Site Potential Tree Height Map Tool which shows that the $SPTH_{200}$ in and around the City of Enumclaw is 100 to 105 feet for Red Alder (primarily within the City and associated with riparian areas) and 196 feet for Douglas Fir (primarily in upland areas).
- Create a minimum buffer width of 100 feet to remove 95% or more removal of pollutants. The amount of pollutant removal desired is a community choice. Buffer widths for pollutant removal are as follows (Quinn et al. 2020):

Pollutant	Buffer width for 80% Removal (ft)	Buffer width for 99% Removal (ft)
Sediment	25	153
Nitrogen, surface	90	200
Nitrogen, subsurface	30	322
Phosphorus	52	101
Pesticides	49	68

- Evaluate baseline current conditions to support goals to maintain and improve ecosystem functions.
- Identify and prioritize the protection of remaining riparian functions, enhancement of areas with degraded functions, and opportunities to maintain and restore in-stream and riparian connectivity.
- Require habitat management plan or critical area report whenever an activity is proposed in a buffer.
- Adopt best management practices and regulate land use activities likely to impact riparian ecosystems found within buffers, including onsite sewage disposal; bank hardening; clearing, grading, and filling; invasive or noxious plant removal; forest practices and conversions, wildfire hazard reduction; hazard tree removal; restoration and enhancement; emergency activities; and educational or recreational areas.

c. Recommendations

- EMC 15.04 (*Definitions*) describes FWHCAs more broadly than EMC 19.02.100 (which says that the City has only designated streams and associated buffers as FHWCA, excluding terrestrial habitat). It is advised that EMC 19.02.100 is updated to include missing language described in EMC 15.04 and consider protection of important terrestrial habitat.
- While certain habitats of local importance are described in EMC (including cliffs, talus, and wetlands), no species of local importance are designated. Therefore, consider designating species of local importance. Designation could be based on species that are federally listed (as threatened, endangered, or candidate) and

have designated critical habitat within the City (such as Steelhead [Puget Sound DPS] and Chinook [Puget Sound ESU]) and WDFW priority species with habitat within the City, including Rocky Mountain elk and elk. Consider consulting the Department of Natural Resources Natural Heritage Program to provide a list of high quality ecological communities, systems, and rare plants. This information can be used to designate habitats and species of local importance.

- Revise 19.02.100(C), which outlines stream typing according to WAC 22-16-030, to more clearly identify what nomenclature is being used. It is recommended that the current nomenclature (that is, Type S, Type F, Type Np, Type Ns, and Type O) be revised as follows: "Type S, formerly Type 1, for streams and watercourses of statewide significance." Remove the reference for Type O since it is no longer present in WAC 22-16-030.
- Include the update to WAC 365-190-030, which states that FWHCAs do "*not include such artificial or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.*"
- Consider WDFW's recommendation that the RMZ delineation steps be applied to all stream types (whether or not they are fish-bearing).
    - Type S Waters: The City's buffer width of 100 feet for Type S waters is consistent with WDFW's RMZ delineation process based on the SPTH200 for red alder (100 to 105 feet), which is the predominant tree species vegetating riparian buffers in the City.
    - Type F Waters: The City should consider increasing the buffer width for fish bearing streams (Type F) from 75 feet up to 100 to 105 feet consistent with the SPTH200 for red alder.
    - Type Np and Ns Waters: The City could consider revising the buffer width of Type Np and Type Ns waters to better align with BAS provided by WDFW. The City currently has a 50 foot buffer for Type Np waters and a 25 foot buffer for Type Ns waters, which is below WDFW's RMZ delineation method which essentially results in a 100-foot minimum buffer recommendation for all streams. While the buffer for Type Np waters is similar to what many jurisdictions maintain (see Table 2), the City could consider increasing the buffer width for type Ns streams to reduce pollutants by at least 80%, depending on the type of adjacent land uses and quality of the buffer.

Table 2. WDFW Riparian Management Zone Guidance and Local Stream Buffers

Water Type	WDFW Guidance	Enumclaw	King County	Covington	Black Diamond[A]	Pierce County
S	100 - 196	100	115	115	75	100
F	100 - 196	75	115	115	50-75	150
Np	100 - 196	50	65	60	25	115/65
Ns	100 - 196	25	65	30	25	115/65
O	100 - 196	0[B]	25	N/A	25	35

Notes:

[A]: The City of Black Diamond's stream buffers do not translate to current nomenclature. Given this, within the City of Black Diamond, Type S correlates to Type 1, Type F correlates to Type 2 or 3, Type Np correlates to Type 4, Type Ns correlates to Type 5.

[B]: Per Enumclaw Municipal Code 19.2.100(C), The City will not impose a buffer requirement on Water Type O unless the Administrator is convinced, on the basis of available field data and personal knowledge, that a buffer is needed to protect downstream critical areas from a risk of significant adverse impact due to onsite water quality degradation.

Qualifications:

Erika Shook, AICP. B.A. Planning Studies, MURP, Master of Urban and Regional Planning.

Tess Amen. B.S. Biology. Certificate of Wetland Science and Management.

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Chapter 19.02
CRITICAL AREAS REGULATIONS

Sections:

Article VI. Floodplain Variance Procedure

Appendices

Article I. General Provisions

19.02.005 Definitions.

The definition of terms used in this chapter are provided in Appendix D, Definitions, of this chapter. (Ord. 2293 § 2 (Exh. A), 2005).

19.02.010 Policy, goals, purpose, and intent.

A. Policy. It is the policy of the city of Enumclaw (city) to require site evaluation, planning and review prior to project permitting and construction to:

1. Avoid or minimize damage to critical areas wherever possible, to ensure no net loss of critical area ecological functions and values, through the application of mitigation sequencing described in WAC-197-11-768;

2. Recognize and respond to the need for flood control and flood-resistant building practices within frequently flooded areas;

3. Identify and regulate geologically hazardous areas that either are not suited for, or would probably impose significant limitations on, building construction, road construction or disturbance and be consistent with public health and safety concerns;

4. Identify and protect aquifer recharge areas for aquifers used for potable water;

5. Require that land use activities not dependent upon the location of a critical area be located in areas outside of the identified or delineated critical area and its associated buffer;

~~6. Achieve no net loss of wetland function and value by requiring restoration or enhancement of degraded wetlands or creation of new wetlands to offset losses that are unavoidable;~~

~~7~~6. Define and protect fish and wildlife habitat conservation areas; and

~~8~~7. Be consistent with public health and safety concerns.

B. Goals. By regulating land use activities within critical areas and their attendant buffers, this chapter seeks to:

1. Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, volcanic eruptions, or flooding;

2. Maintain healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve the biodiversity of plant and animal species;

3. Direct activities not dependent on critical areas resources to less ecologically sensitive sites and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas;

4. Allow modification and/or obliteration of low function and value wetland, stream, and wildlife habitats in conjunction with off-site mitigation and restoration in designated areas where the addition of created and/or enhanced habitats will increase fish and wildlife production, public benefits, and economic viability in the city limits and urban growth areas; and

5. Prevent ~~cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, and habitat conservation areas~~a net loss of ecological functions and values for all critical areas.

C. Purpose. The purpose of this chapter is to protect the public health, safety, and welfare of the citizens of the city as well as the critical areas regulated within the city by:

1. Defining, designating, and classifying ~~ecologically sensitive and hazardous areas to be regulated in the city~~critical areas as wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas, per WAC 365-196-830;

2. Providing city officials with information to evaluate, approve, condition, or deny public or private development proposals based upon the regulations outlined in this chapter;

3. Enforcing the regulations outlined in this chapter to prevent the adverse impacts of development within and adjacent to critical areas;

4. Protecting the public against critical area losses due to:

a. Unnecessary maintenance and replacement of public facilities, including the dredging of ports and navigation channels;

b. Publicly funded mitigation of avoidable impacts;

5. Protecting the private property rights of property owners in the city by alerting appraisers, assessors, owners, and potential buyers or lessees to the development limitations of critical areas;

6. Providing alternative enforcement strategies, incentives, and/or compensation to property owners whose property would be rendered partially or fully undevelopable due to the enforcement of the regulations outlined in this chapter, and who, by cooperating with the city in implementing the regulations outlined in the chapter rather than pursuing reasonable use alternatives, allow for a net improvement in the regulated critical area's habitat quality and wildlife/fish production;

7. Protecting, enhancing, restoring, and mitigating impacts to regulated critical areas and their functions and values, while also allowing for reasonable use of private property and economic viability in the city;

8. Implementing the current goals, policies, guidelines, and requirements of the city's comprehensive plan, the State of Washington (State) Growth Management Act, and the State Environmental Policy Act (SEPA); as well as all updated (future) versions of city environmental regulations and community (or comprehensive) plans, applicable state community development and environmental regulations, and applicable federal regulations.

D. Intent. The regulations detailed in this chapter are intended to provide the city a basis for protecting, restoring, enhancing, and/or obliterating (with approved mitigation) the designated and classified critical areas in accordance with the Growth Management Act and through the application of the best available science, as determined according to WAC 365-195-900 through 365-195-925, and in consultation with state and federal agencies and other qualified professionals.

In addition, it is the intent of the city that activities in or affecting wetlands not threaten public safety, cause nuisances, or destroy or degrade natural wetland functions and values by:

1. Impeding flood flows, reducing flood storage capacity, or impairing natural flood control functions, thereby resulting in increased flood heights, frequencies, or velocities on other lands;

2. Increasing water pollution through location of domestic waste disposal systems in wetlands, unauthorized application of pesticides and herbicides, disposal of solid waste at inappropriate sites, creation of unstable fills, or the destruction of wetland soils and vegetation, and/or compromising pollution control functions;

3. Increasing erosion (e.g., weakening root strength, which is essential for stabilizing soil);

4. Decreasing breeding, nesting, and feeding areas for many species of waterfowl and shorebirds, including those rare and endangered;

5. Interfering with the exchange of nutrients needed by fish and other forms of wildlife;

6. Decreasing habitat for fish and other forms of wildlife (e.g., reducing riparian shade provided by riparian vegetation, decreasing wood input);

7. Adversely altering the recharge or discharge functions of wetlands, thereby impacting ground water or surface water supplies;

8. Significantly altering wetland hydrology and thereby causing either short- or long-term changes in vegetative composition, soils characteristics, nutrient cycling, or water chemistry;

9. Destroying sites needed for education and scientific research, such as outdoor biophysical laboratories, living classrooms, and training areas; or

10. Destroying or damaging aesthetic and property values, including significant public view sheds.

19.02.020 Applicability, regulated activities, and exempt activities.

A. All regulated activities shall be subject to the provisions of this chapter, except those activities that occur within shoreline jurisdiction. When critical areas occur within shoreline jurisdiction, the critical areas regulations within the city of Enumclaw shoreline master program, Chapter 15.36 EMC, shall apply. The provisions of this chapter shall apply to all lands, all land uses, and development activities, and all structures and facilities in the city, whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the city. No person, company, agency, or applicant shall alter a critical area or its

associated buffer except as consistent with the purposes and requirements of this chapter and as authorized by the administrator.

1. Regulated Activities. Regulated activities include, but are not limited to, development clearing (vegetation), draining, dredging, dumping or stockpiling (native or nonnative organic or inorganic materials), excavating, filling, flooding, grading, harvesting, obstructing, pile driving, or shading (with human-made structures) within critical areas and their associated buffers.

2. The city shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or vegetation, for development within areas of special flood hazard or to construct or alter any structure or improvement in, over, or on a critical area or associated buffer, without first ensuring compliance with the requirements of this chapter, including, but not limited to, the following:

a. Building permit;

b. Clearing and grading permit;

c. Forest practices permit;

d. Conditional use permit;

e. Shoreline conditional use permit;

f. Shoreline substantial development permit;

g. Shoreline exemption;

h. Shoreline variance;

i. Short subdivision;

j. Subdivision;

k. Planned unit development;

l. Binding site plan;

m. Zoning variance;

n. Zoning code amendment;

o. Flood development permit; or

p. Any other adopted permit or required approval not expressly exempted by this chapter.

3. Approval of a permit or development proposal pursuant to the provisions of this chapter does not discharge the obligation of the applicant to comply with the provisions of this chapter.

4. The city shall not grant any approval or permission to conduct a regulated activity in a critical area unless the activity is in compliance with this chapter or unless the activity is expressly exempted by this chapter.

5. Many state, federal and regional regulations apply to projects conducted within critical areas. Uses and development otherwise allowed by this chapter do not eliminate other agency regulatory requirements nor the obligation of the applicant to comply with other federal, state and regional regulations.

B. Exempt Activities. The following exemptions do not apply when conducted within shoreline jurisdiction as defined by the city of Enumclaw shoreline master program, Chapter 15.36 EMC, or if defined as "development" within areas of special flood hazard. With the approval of the administrator (director of community development), the uses listed below shall be exempt from the provisions of this chapter and are allowed within a critical area to the extent that the uses are consistent with the provisions of other applicable local, state, and federal laws, regulations and requirements; and are not prohibited by any other chapter or law; and provided they are conducted using best management practices, except where such activities result in the conversion of a critical area to a use to which it was not previously subjected; and provided further, that forest practices and conversions shall be governed by current state regulations.

All exempted activities shall use reasonable methods to avoid potential impacts to critical areas. By finding that an activity proposed within a critical area or its associated buffer is exempt from the provisions of this chapter, the administrator is not granting permission to degrade a critical area or ignore risk from natural hazards. Any incidental damage to, or alteration of, a critical area that is not a necessary outcome of the exempted activity shall be ~~restored, rehabilitated, or replaced~~ fully mitigated at the responsible party's expense and result in no net loss of critical areas ecological functions and values.

The following are exempt activities or allowable uses:

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife including activities undertaken for purposes of habitat enhancement that is part of an enhancement project which has received prior written approval from the city and any other agency with jurisdiction over such activity;

2. Outdoor recreational activities, including fishing, bird watching, hiking, boating, horseback riding, swimming, canoeing, and bicycling;

3. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or alteration of the wetland by changing existing topography, water conditions or water sources;

4. Existing and ongoing agricultural activities including farming, horticulture, aquaculture, irrigation, ranching or grazing of animals.

a. Cessation of agricultural activities on an area that was previously farmed to allow that area to lie fallow as part of a conventional, rotational cycle (or for any other regular or normal farming practice) is considered to be part of an ongoing agricultural operation and is not to be considered as a cessation of farming or as a change in land use.

b. Cessation of farming activities in response to government programs designed to control commodity production shall not be considered a permanent cessation of farming activity or a change in land use unless the land is left fallow or unfarmed for a period of seven years beyond the termination of the government program. Farming activities can resume after seven or more years, but the administrator has the authority to impose new critical areas regulations on all land use activities initiated at the end of the seven-year period and beyond.

c. Cessation of farming activities in response to market conditions or economic irregularities adversely impacting farming activities will not be considered a cessation of farming activities or a change in land use unless the land is left fallow or unfarmed for a period of five years or longer. Farming activities can resume after five or more years, but the administrator has the authority to impose new critical areas regulations on all land use activities initiated at the end of the seven-year period and beyond.

d. Activities undertaken to bring an area back into agricultural use and production following a period of nonfarm use may not be considered, in the judgment of the administrator, part of an ongoing operation. As a result, such activities may not be exempt from the provisions of this chapter.

e. An operation ceases to be ongoing when the area on which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operations;

5. The maintenance (but not construction) of drainage ditches;

6. Education, scientific research, and use of nature trails;

7. Navigation aids, boundary markers, and boat mooring buoys;

8. Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests and other related activities. In every case, impacts shall be minimized and disturbed areas shall be immediately restored;

9. Emergency repair or construction activities or vegetation harvesting (mowing) that the city determines to be necessary to protect the health, safety, or welfare of area residents. Upon abatement of the emergency situation the new construction shall be removed or any permit which would have been required, obtained, and a mitigation plan for any loss of wetland function will submitted to the city and implemented within two years of the emergency activity;

10. Normal maintenance, repair, or operation of existing legally established serviceable structures, facilities, or improved areas. Maintenance and repair does not include any modification that changes the character, scope, or size of the original structure, facility, or improved area and does not include the construction of a maintenance road; increase the impact to, or encroach further within, the critical area or buffer; or increase risk to life or property.

Commented [SE1]: Consider clarification.

11. Public and private pedestrian trails, except in wetlands, subject to the following:

a. The trail surface shall meet all other requirements including water quality standards set forth in the city's applicable storm water management regulations;

b. Whenever possible the trail surface should be comprised of materials that allow the maximum amount of storm water runoff infiltration;

c. When required by the administrator trails within nonwetland critical areas and/or their associated buffers, total widths of the buffers where the trail is located shall be increased, where possible, to a width equal to the width of the trail corridor, including disturbed areas, plus the originally prescribed wetland buffer width;

d. Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk of landslide or erosion and in accordance with an approved geotechnical report; and

e. Trails may be allowed in wetlands if the administrator can demonstrate that the public education benefits are greater than the detrimental effects of the wetland impacts associated with the construction, maintenance, and long-term operation of the trail. The impacts of administrator-approved trail installation, public or private, shall be mitigated by the project proponent. Mitigation efforts may include unconventional mitigation activities such as:

(1) Purchase and installation of educational/interpretive signage within the wetland and the adjacent buffer;

(2) Purchase of materials and construction of unobtrusive viewing platforms and/or blinds; and

(3) Purchase of materials and installation of habitat features such as duck boxes, goose platforms, large woody debris to be installed as downed logs or snags, or native animal species to augment or increase species diversity;

f. The trail or interpretive facility is constructed and maintained in a manner that minimizes disturbance to the critical area(s) to the extent practicable.

(1) Trails and interpretive facilities shall be engineered and built to standards that avoid the need for major repair or reconstruction beyond that which would be required outside of critical areas and shall be:

(a) Located in the least sensitive area of the site.

(b) Designed to minimize topographic modification by utilizing low gradients and/or aligning trail and interpretive facilities parallel to the natural contours of the site.

(c) Retaining walls shall be preferred over cut and fill slopes to minimize topographic alteration.

(d) Clearing and grading shall minimize ground disturbance to the extent practicable to accommodate allowed development and generally shall not extent more than ten feet beyond the approved trail and/or interpretive facility.

12. The following vegetation ~~removal~~ management activities; provided, that no vegetation shall be removed from a critical area or its buffer without approval from the administrator, are allowed:

a. The removal of the following vegetation with hand labor and light equipment:

(1) Invasive and noxious weeds;

(2) English Ivy (Hedera helix);

(3) Himalayan blackberry (Rubus ~~bifrons~~discolor, R. procerus); and

(4) Evergreen blackberry (Rubus laciniatus);

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b. The removal of hazard trees from critical areas and buffers ~~that are hazardous~~which~~,~~ ~~posing~~ pose a threat to public safety, or pos~~e~~ei~~ng~~ an imminent risk of damage to private property; provided, that:

(1) The applicant submits a report from a certified arborist, registered landscape architect, or professional forester that documents the hazard and provides a replanting schedule for the replacement trees;

(2) Tree cutting shall be limited to pruning and crown thinning, unless otherwise justified by a qualified professional. Where pruning or crown thinning is not sufficient to address the hazard, trees should be removed or converted to wildlife snags;

(3) All vegetation cut (tree stems, branches, etc.) shall be left within the critical area or buffer unless removal is warranted due to the potential for disease or pest transmittal to other healthy vegetation;

(4) Unless otherwise directed by the administrator, the landowner shall replace any significant trees that are removed as part of an approved land use or development project with new trees at a ratio of two replacement trees for each tree removed (2:1) within one year in accordance with an approved restoration plan.

(a) Significant trees are conifer species greater than six inches in diameter at breast height (dbh) and deciduous species greater than eight inches dbh.

(b) Replacement trees may be planted at a different, but nearby, location than the trees that were removed if it can be determined that planting in the same location would create a new hazard or potentially damage the critical area.

(c) Unless otherwise directed by the administrator, tree species removed will be replaced with the same species.

(d) Replacement trees shall be species that are native and indigenous to the site and a minimum of one inch in diameter at breast height (dbh) for deciduous trees and a minimum of six feet in height for evergreen trees as measured from the top of the root ball;

(5) If a tree to be removed provides critical habitat, such as an eagle perch, a qualified wildlife biologist shall be consulted to determine timing and methods of removal that will minimize impacts; and

(6) Hazard trees determined to pose an imminent threat or danger to public health or safety, to public or private property, or of serious environmental degradation may be removed or pruned by the landowner prior to receiving written approval from the city; provided, that within 14 days following such action, the landowner shall submit a restoration plan that demonstrates compliance with the provisions of this title;

c. Measures to control a fire or halt the spread of disease or damaging insects consistent with the State Forest Practices Act, Chapter 76.09 RCW, and any applicable city code sections; provided, that the removed vegetation shall be replaced in-kind or with similar native species within one year in accordance with an approved restoration plan; and

d. Unless otherwise provided, or as a necessary part of an approved alteration, removal of any vegetation or woody debris from a habitat conservation area or wetland shall be prohibited;

13. The application of herbicides, pesticides, organic or mineral-derived fertilizers, or other hazardous substances, if necessary, as approved by the administrator; provided, that their use shall be restricted in accordance with State Department of Fish and Wildlife Management recommendations and the regulations of the State Department of Agriculture and the U.S. Environmental Protection Agency; and

14. Utility projects which have minor or short-duration impacts to critical areas, as determined by the administrator in accordance with the criteria below, and which do not significantly impact the function or values of a critical area(s); provided, that such projects are constructed with best management practices and additional restoration measures are provided. Minor activities shall not result in the transport of sediment or increased storm water. Such allowed minor utility projects shall meet the following criteria:

a. There is no practical alternative to the proposed activity with less impact on critical areas;

b. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and

c. The activity involves disturbance of an area less than 75 square feet.

C. Exemption Request and Review Process. The proponent of the activity that is not specifically listed above may submit a written request for exemption to the administrator that describes the activity and states the exemption listed in subsection B of this section that may apply.

The administrator shall review the exemption request to verify that it complies with this title and approve or deny the exemption. If the exemption is approved, it shall be placed on file with

the administrator. If the exemption is denied, the proponent may continue in the review process and shall be subject to the requirements of this chapter.

D. This chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this chapter to make a parcel of property unusable by denying its owner reasonable economic use of the property that would otherwise be allowed under the current code and would be consistent with other allowable uses.

E. It is not the intent of this chapter to prevent the provision of public facilities and services necessary to support existing development and planned for by the community without decreasing current service levels below minimum standards (see RCW 36.70A.020(12)).

F. The city's enactment or enforcement of this chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.

G. It is not the intent of this chapter to repeal, abrogate, or impair any existing regulations, easements, covenants, or deed restrictions. Where this chapter provides more protection to critical areas, however, the provisions of this chapter shall prevail unless specifically provided otherwise in this chapter.

19.02.030 Exceptions.

A. Exception – Subdivisions with Substantial Completion of Infrastructure. A building permit application shall not be denied under this chapter if there has been substantial completion of the infrastructure of the plat within which the subject property of the permit is specifically located; however, a floodplain development permit is required, and the completed infrastructure cannot adversely impact critical area habitat or endangered species. A determination of substantial completion shall be based on the administrator's assessment of existing constructed infrastructure such as streets, utilities, and drainage improvements.

1. Typically "substantial completion" means the amount of construction within a particular project area has impacted critical areas to the maximum extent that would be attributable to the project actions and on-site mitigation is neither economically nor ecologically viable.

2. The administrator will confer with the city manager, the city's risk management specialist, and the city attorney regarding the consequences of a decision to deny a building permit for a project with a valid clearing and grading permit, approved site plans, and an authorization to proceed with construction.

B. Exception – Reasonable Use. "Reasonable use" exceptions do not apply within shoreline jurisdiction or within areas of special flood hazard.

Commented [CP5]: For some reason, large scale project should have some definition, like a dollar amount threshold?

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1. If the application of this chapter would deny all reasonable economic use of the subject property, the city shall determine if compensation is an appropriate action, or the property owner may apply for an exception pursuant to this section.

2. Exception Request and Review Process. An application for a reasonable use exception shall be made to the city and shall include a critical area identification form; critical areas report, including mitigation plan, if necessary; and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW). The administrator shall prepare a recommendation to the city council based on review of the submitted information, a site inspection, and the proposal's ability to comply with reasonable use exception criteria in subsection (B)(4) of this section.

3. City Council Review. The city council may elect to review an application for reasonable use and may elect to conduct a public hearing pursuant to the provisions of the applicable city code section(s). The city council may approve, approve with conditions, or deny a reasonable use exception request based on the proposal's ability or lack of ability to comply with all of the reasonable use exception review criteria in subsection (B)(4) of this section.

4. Reasonable Use Review Criteria. Criteria for review and approval of reasonable use exceptions follow; one or more may apply:

a. The application of this chapter would deny all reasonable economic use of the property;

b. No other reasonable economic use of the property has less impact on the critical area;

c. The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property;

d. The inability of the applicant to derive reasonable economic use of the property is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter, or its predecessor;

e. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

f. The proposal will result in no net loss of critical area functions and values consistent with the best available science; or

g. The proposal is consistent with other applicable regulations and standards.

5. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

C. Exception – Public Agency and Utility.

1. If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this section.

2. Exception Request and Review Process. An application for a public agency and utility exception shall be made to the city and shall include a critical area identification form; critical areas report, including mitigation plan, if necessary; and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW). The director shall prepare a recommendation to the city council based on review of the submitted information, a site inspection, and the proposal's ability to comply with public agency and utility exception review criteria in subsection (C)(4) of this section.

3. City Council Review. The city council shall review the public agency exception application and administrator's recommendation. Following that review, the city council may elect to conduct a public hearing pursuant to the provisions of the applicable city code section. The city council shall approve, approve with conditions, or deny the public agency exception request based on the proposal's ability or lack of ability to comply with all of the public agency and utility exception criteria in subsection (C)(4) of this section.

4. Public Agency and Utility Review Criteria. The criteria for review and approval of public agency and utility exceptions follow:

a. There is no other practical alternative to the proposed development with less impact on the critical areas;

b. The application of this chapter would unreasonably restrict the ability to provide utility services to the public;

c. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

d. The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with the best available science; and

e. The proposal is consistent with other applicable regulations and standards.

5. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

19.02.040 Assessment relief.

Landowners who have dedicated an easement or entered into a perpetual conservation restriction with the city to permanently control some or all regulated activities may have that portion of land exempt from special assessments such as sanitary sewers, storm sewers and water mains.

Article II. Critical Areas

19.02.050 Finding of fact.

A. The city finds that critical areas provide a variety of valuable and beneficial biological and physical functions that benefit the city and its residents, and/or may pose a threat to human safety or to public and private property. The beneficial functions and values provided by critical areas include, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation of flood waters, ground water recharge and discharge, erosion control, wave attenuation, protection from hazards, historical, archaeological, and aesthetic value protection, and recreation. These beneficial functions are not listed in order of priority.

B. Per RCW 36.70A.030(5), critical areas include:

1. Frequently flooded areas;

2. Geologically hazardous areas;

3. Critical aquifer recharge areas;

4. Wetlands;

5. Fish and wildlife habitat conservation areas.

19.02.060 Frequently flooded areas.

A. Finding of Fact. The city finds that frequently flooded areas provide a variety of valuable and beneficial physical functions that benefit the city and its residents, and/or may pose a threat to human safety or to public and private property. The beneficial functions and values provided by frequently flooded areas include flood storage, conveyance and attenuation of flood waters as well as channel migration zone management.

B. Technical Information.

1. Applicability. This section shall apply to all areas of special flood hazard and wetlands within the jurisdiction of the city, originally adopted as Chapter 19.04 EMC and amended as a section of this chapter.

a. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County, Washington, and Incorporated Areas" dated August 19, 2020, and any revisions thereto, with accompanying flood insurance rate map (FIRM), dated August 19, 2020, and any revisions thereto, are hereby adopted by reference and declared to be a part of this chapter. The flood insurance study and FIRMs are on file with the city clerk, city of Enumclaw, City Hall, Enumclaw, Washington. The best available information for flood hazard area identification as outlined in subsection (C)(1) of this section shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under subsection (C)(1) of this section.

C. Administrator – Duties.

1. When base flood elevation data has not been provided in accordance with subsection (B)(1)(a) of this section, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source.

2. Where base flood elevation data is provided through the flood insurance study, FIRM, or as required in subsection A of this section, obtain and maintain a record of the actual (as-built) elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures, and whether or not the structure contains a basement.

3. For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in subsection (C)(1) of this section:

a. Obtain and maintain a record of the actual elevation (in relation to mean sea level) to which the structure was floodproofed; and

b. Maintain the floodproofing certifications as required in subsection (C)(4) of this section.

4. Maintain for public inspection all records pertaining to the provisions of this chapter.

5. Interpretation of FIRM Boundaries. The administrator shall make interpretations where needed as to the exact location of the boundaries of the areas of special flood hazard (e.g., where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in EMC 19.02.170. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the NFIP.

6. The administrator shall notify adjacent communities and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse, submit evidence of such notification to the Federal Insurance Administration through appropriate notification means, and require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

7. Habitat Assessment. The administrator shall require a habitat assessment for all development within areas of special flood hazard (reference "Floodplain Habitat Assessment and Mitigation, Regional Guidance for the Puget Sound Basin," FEMA Region 10, 2013, or as hereafter revised).

8. Obtain and maintain certification required by EMC 19.02.190(A)(10)(a) (floodway encroachments).

9. Obtain and maintain records of all variance actions, including justification for their issuance.

10. Obtain and maintain improvement and damage calculations.

11. Designation of the Floodplain Administrator. The community development director is hereby appointed to administer, implement, and enforce this chapter by granting or denying development permits in accordance with its provisions. The floodplain administrator may delegate authority to implement these provisions.

12. Permit Review. Review all development permits to determine that:

a. The permit requirements of this chapter have been satisfied;

b. All other required state and federal permits have been obtained;

c. The site is reasonably safe from flooding;

d. The proposed development is not located in the floodway. If located in the floodway, ensure the encroachment provisions of EMC Section 19.02.190(A)(10)(a) are met;

e. Notify FEMA when annexation occur in the special flood hazard area.

D. Compliance. All development within special flood hazard areas is subject to the terms of this chapter and other applicable regulations.

E. Noncompliance. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $5,000 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation.

F. Abrogation and Greater Restrictions. This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restrictions conflict or overlap, whichever imposes the most stringent restrictions shall prevail.

G. Interpretation. In the interpretation and application of this chapter, all provisions shall be:

1. Considered as minimum requirements; and

2. Liberally construed in favor of the governing body; and

3. Deemed neither to limit nor repeal any other powers granted under state statutes.

H. Warning and Disclaimer of Liability. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city of Enumclaw, any officer or employee thereof, or the Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

19.02.065 Floodplain development permit.

A. Development Permit Required. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in EMC 19.02.060(B)(1)(a). The permit shall be for all structures including manufactured homes, as

set forth in the definitions, and for all development including fill and other activities, also as set forth in the definitions.

B. Application for Development Permit. Application for a development permit shall be made on forms furnished by the floodplain administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

1. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;

2. Elevation in relation to mean sea level to which any structure has been floodproofed;

3. Where a structure is to be floodproofed, certified by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in EMC 19.02.190(A)(7);

4. Description of the extent to which a watercourse will be altered or relocated as a result of a proposed development;

5. Where development is proposed in a floodway, an engineering analysis indicating no rise of the base flood elevation; and

6. Any other such information that may be reasonably required by the floodplain administrator in order to review the application.

19.02.070 Geologically hazardous areas.

A. Finding of Fact. Based upon the most recent information, the city has determined that only three of the seven geologically hazardous areas listed in WAC 365-190-080 are relevant to the city. Those three categories of geologically hazardous areas are:

1. Erosion hazard areas;

2. Landslide hazard areas;

3. Seismic hazard areas.

These are the only areas that will be addressed in this chapter.

B. Identification. The identification of geologically hazardous areas involves the collection of baseline data and the preparation of a critical areas report (see Appendices B and E of this chapter) by a qualified professional. In the case of geologic hazards, the qualified professional is

a registered engineering geologist or a licensed geotechnical engineer. The following is a list of technical information requirements:

1. Erosion Hazard Areas – Technical Information. Erosion hazard: areas identified as having high or very high water erosion hazard by the U.S. Department of Agricultural Soil Conservation Service as supplied by the SCS area office;

2. Landslide Hazard Areas – Technical Information. Landslide hazard: areas potentially subject to landslides based upon the following combination of geologic, topographic and hydrologic factors:

a. Areas of historic failure including:

i. Those areas delineated by the U.S. Department of Agriculture Soil Conservation Service as having “severe” limitations for building site development;

ii. Those areas mapped as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources Division of Geology and Earth Resources;

b. Areas with all three of the following characteristics:

i. Slopes of 15 percent gradient or greater; and

ii. Hillsides intersecting geologic contacts with a relatively permeable sediment overlaying a relatively impermeable sediment or bedrock; and

iii. Springs or ground water seepage;

c. Areas that have shown movement during the Holocene Epoch or which are underlain or covered by mass wastage debris of the epoch;

d. Slopes that are parallel or subparallel to planes or weakness in subsurface materials;

e. Privately owned areas with slopes that have gradients greater than 80 percent subject to rock fall during seismic shaking;

f. Technical Information.

i. Identify and quantify geologic, topographic and hydrologic factors that might contribute to slope instability. The rate and extent of potential hazards to development activity must be assessed and mitigation measures, if any,

evaluated. The proposed development must be analyzed in light of the hazards and effects represented by the landslide exposure on proposed private and public investments. Development operational factors should be included in the analysis to account for the effects of residential landscape irrigation, storm water generation from impervious surfaces and the influence of street conveyance on slope stability.

ii. The submittal of a geotechnical report establishing the suitability of the site for construction shall be required.

iii. If found to be suitable, a professional registered engineer shall design a foundation that accommodates on-site conditions.

3. Seismic Hazard Areas – Technical Information. Seismic hazard areas are those areas subject to severe risk of earthquake damage as a result of ground movement, ground displacement, or soil liquefaction in areas underlain by cohesionless soils of low density and usually in association with a shallow ground water table or other seismically induced settlement.

a. Identify and quantify geologic factors that might contribute to seismic activity. The rate and extent of potential hazards to development activity must be assessed and mitigation measures, if any, evaluated.

b. The proposed development must be analyzed in light of the hazards and effects represented by the seismic exposure on proposed private and public investments.

19.02.080 Critical aquifer recharge areas.

A. Finding of Fact. No Category I critical aquifer recharge areas have been identified or designated within the city limits of, or within the urban growth area around, the city of Enumclaw (12/2004).

B. Critical Aquifer Recharge Areas – Categories. Critical aquifer recharge areas are categorized as follows:

1. Category I critical aquifer recharge areas include those mapped areas that Enumclaw has determined are highly susceptible to ground water contamination and that are located within a sole source aquifer or a wellhead protection area;

2. Category II critical aquifer recharge areas include those mapped areas that Enumclaw has determined:

a. Have a medium susceptibility to ground water contamination and are located in a sole source aquifer or a wellhead protection area; or

b. Are highly susceptible to ground water contamination and are not located in a sole source aquifer or wellhead protection area; and

3. Category III critical aquifer recharge areas include those mapped areas that Enumclaw has determined have low susceptibility to ground water contamination.

C. Technical Information Requirements. Delineation of the recharge areas on a scaled development plan and detailed information on the following items is required for uses listed in EMC19.02.190.(C) when proposed within a critical aquifer recharge area;

1. Hydrogeological susceptibility to contamination and contamination loading potential;

2. Depth to ground water;

3. Hydraulic conductivity and gradient;

4. Soil permeability and contamination attenuation;

5. A vadose zone analysis including permeability and attenuation properties;

6. An analysis of the recharge area's toleration for impervious surfaces in terms of both aquifer recharge and the effect on water quality degradation;

7. A summary of the proposed development's effect on the recharge area, concentrating on items in subsections (C)(4) and (5) of this section;

8. Existing aquifer water quality analysis.

19.02.090 Wetlands – Category and buffer widths.

A. Wetlands are described by wetland class and by wetland category (see Appendix A of this chapter).

1. Technical Information. The exact location of the wetland boundary or boundaries within and in close proximity to the proposed project site shall be determined by the applicant through the performance of a field investigation applying the provisions detailed in EMC 19.02.140(D). Field data collection for the purposes of identifying and delineating a wetland shall be performed by a qualified professional wetland scientist (biologist or ecologist) in concert with qualified biological technicians. The wetland delineation process shall be completed in accordance with current U.S. Army Corps of Engineers and Washington State Department of Ecology standards (see EMC 19.02.140(D)).

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2. The qualified professional shall determine, on the basis of established criteria from the Corps and WDOE, if the identified and delineated wetland is regulated and whether said wetland is subject to corps and/or state jurisdiction or is under the jurisdiction of both agencies.

3. Reporting requirements are detailed in EMC 19.02.140, Appendix B, and Appendix E of this chapter.

B. Wetland Category. In the city, wetland category is used to regulate activities within and adjacent to a wetland and in determining the width of the wetland buffer. The wetland category is determined after a wetland has been identified and delineated. Wetland category is determined using the ~~current~~ Washington State Wetland Rating System for Western Washington: 2014 Update (Version 2) (WDOE Publication No. ~~14-06-029~~23-06-009 or as subsequently revised and approved by Ecology). Wetlands are evaluated and scored on three criteria (water quality functions, hydrologic functions, and habitat functions).

The WDOE document contains the definitions and scoring methods used for determining if the wetland rating criteria outlined in Appendix A of this chapter are met. The total score for the three functional areas determines the wetland category. Note that streams and lakes are not rated as wetlands, but rather are classified and rated as fish and wildlife conservation areas (EMC 19.02.100).

C. Wetland Buffers. Wetland buffers are established to protect wetland resources from adjacent land uses. Buffer widths are shown in table 19.02.090(C). Buffers shall be determined according to the wetland category and habitat score as identified as determined by a qualified wetland professional using the Washington State Wetland Rating System for Western Washington: 2014 Update (Version 2) (Ecology Publication No. 23-06-00914-06-029, or as revised and approved by Ecology). 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. ~~The buffer width shall vary by wetland category with the standard buffer width being:~~

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Table 19.02.090(C) – Buffer Widths

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~~Wetland Category~~	~~Standard Buffer Width (in feet)~~	~~Range of Buffer Widths (in feet)~~
~~I~~	~~150~~	~~100 to 300~~
~~II~~	~~95~~	~~75 to 200~~
~~III~~	~~50~~	~~25 to 100~~
~~IV~~	~~25~~	~~15 to 50~~

Wetland Category	Buffer Width (feet) Based on Habitat Score		
	Habitat Score: 3-5	Habitat Score: 6-7	Habitat Score: 8-9
Category I & II			
Bogs or wetland of high conservation value	300		
Category I & II that are not Bogs or wetlands of high conservation value	100	150	300
Category III	80	150	300
Category IV	50		

1. Measurement of Wetland Buffers. All buffers shall be measured from the wetland boundary as surveyed in the field. Buffer widths shall be measured horizontally from a perpendicular line established at the wetland edge based on buffer widths identified in Table 19.02.090(C).

~~1.~~ 2. Buffer Vegetation Requirements. Wetland buffer zones shall be retained in their natural condition. Where buffer disturbance is unavoidable during adjacent construction, revegetation will be required with native plant materials preferred.

~~2. Standard Width Buffers. An applicant can elect to use the standard buffer widths to establish those areas within the project site where regulated activities will not occur.~~

3. Buffer Averaging. The administrator may allow buffer width averaging~~Use of standard width buffers in site planning does not preclude the use of buffer averaging as a site planning tool. To be included in an approved site plan, however, a buffer averaging plan must be reviewed and approved by the administrator. Wetland buffer width averaging shall be allowed~~ only where the applicant demonstrates all of the following:

a. ~~That a~~Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property:

i. An extraordinary hardship can include an administrator decision that would yield the applicant's project unconstructible or yield the property undevelopable, or.

ii. An administrator decision that would alter a proposed project from being economically feasible to not being economically feasible, particularly if the applicant was reliant on prior city decisions in making economic and project go/no go decisions;

b. ~~That t~~The wetland/stream contains variations in sensitivity due to existing physical characteristics;

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c. ~~That~~ Buffer width averaging will not adversely impact the wetland functions or values, including function and value of habitat for endangered, threatened or sensitive fish or animal species; and

d. ~~That the t~~Total area contained within the wetland/stream buffer after averaging is no less than that contained within the ~~standard~~ prescribed buffer prior to averaging. If buffer averaging is allowed the buffer width shall not be reduced by more than ~~40~~ 25% percent of the ~~standard~~ prescribed buffer ~~or be less than 15 feet~~; and

e. The administrator shall require enhancement of the buffer vegetation to increase buffer functions and values if, based on an on-site evaluation, it is determined that the existing buffer plant community is monotypic (has a single dominant species), is dominated by groundcover species, has an overall plant density of 50 percent or less, and has unobstructed pathways for various pollutants to travel between the adjacent upland (developed or undeveloped) and the protected wetland. The amount of buffer enhancement (vegetation planting, soil augmentation, and addition of woody debris) that shall be required will vary on a case-by-case basis depending upon the potential risk (high, moderate, or low) of adverse impacts stemming from adjacent land use activities.

4. Buffer Width Reduction. The administrator may grant a wetland/stream buffer width reduction of up to 25% of the buffer prescribed in Table 19.020.090(C) only where the applicant demonstrates all of the following:~~An applicant may request the administrator's approval of a buffer reduction plan that is based upon the condition of the vegetation in the existing buffer, the slope of the land adjacent to the buffer, the proposed land use, the risk of negative impacts to the buffer and wetland, and the opportunity for wildlife and fish species to use the buffer habitat~~.

a. The wetland is not categorized as a bog or wetland of high conservation value; and~~To evaluate an applicant's request for buffer reduction, the administrator will require the applicant to submit a "Buffer Risk and Opportunity Assessment" (see Appendix F of this chapter) completed by a qualified professional to evaluate the request using real data.~~

b. For wetlands that score six points or more for habitat function, a relatively undisturbed, vegetated corridor at least 100 feet wide is protected by conservation easement, deed restriction or other legal mechanism between the wetland and any of the following:

i. Other priority habitats as defined by the Washington State Department of Fish and Wildlife; or

ii. An area that is the site of a watershed project identified in a watershed plan as defined by RCW 89-08-460; or

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Commented [AT16]: ECY/Emily Atkins: You seem to be using option 1 here from our CAO guidance. This is good though it might be useful to include a table of what the reduced buffers would be like in our guidance.

Commented [CP17]: i'm reading this to mean that any wetland that is Category 1,2 or 3, that has a habitat score of 3-5 is not afforded a buffer width reduction? Meaning, a Category 4, with any habitat score could have a buffer width of 37.5 and a Category 2 wetland with a score of 5 would not get a reduction, but a score of 6 would. Is this correct?

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iii. An area where development is prohibited under the shoreline master program; and~~If the assessment rating supports the applicant's request for buffer width reduction and/or variable width buffers, the administrator will make a decision to allow buffer reduction, with or without mitigation. The range of potential buffer widths is shown in Table 19.02.090(C) – Buffer Widths.~~

c. The mitigation measures in Table 19.02.090(C)(2) are implemented, where applicable, to minimize the impacts of the adjacent land uses:

Table 19.02.090(C)(2) – Required Mitigation Measures to Minimize Impacts to Wetlands (all measures are required if applicable to a specific proposal)

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Examples of Disturbance	Activities and Uses that Cause Disturbances	Examples of Measures to Minimize Impacts
Lights	• Parking lots • Warehouses • Manufacturing • High Density Residential	• Direct lights away from wetland
Noise	• Manufacturing • High Density Residential	• Locate activity that generates noise away from wetland
Toxic Runoff*	• Parking lots • Roads • Manufacturing • Residential areas • Application of agricultural pesticides • Landscaping	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Covenants limiting use of pesticides within 150 ft of wetland • Apply integrated pest management
Stormwater Runoff	• Parking lots • Roads • Manufacturing • Residential areas • Commercial • Landscaping	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer
Change in Water Regime	• Any impermeable surfaces • Lawns • Tilling	• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
Pets and Human Disturbance	• Residential areas	• Utilize fencing around buffer (preferably split rail for animal migration) • Establish dense native vegetation to delineate buffer

		edge and to discourage disturbance • Place wetland and its buffer in a separate tract
Dust	• Tilled fields	• Use best management practices to control dust
*These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.		

5. Buffer Width Enlargement. The administrator may require increased standard buffer zone widths on a case-by-case basis when a larger buffer is necessary to protect wetlands or stream functions and values based on local conditions. Buffer widths can be increased to the upper end of the ranges shown in Table 19.02.090(C) – Buffer Widths. If the administrator elects to impose larger (wider) buffers on a specific project, the decision to use wider buffers must be supported by best available science and current local data (observations). Buffer widths shall be increased ~~(see Appendix F of this chapter)~~ if the administrator can demonstrate:

Commented [SE18]: Appendix F are the wetland rating forms

a. A larger buffer is necessary to maintain viable populations of existing species; or

b. The wetland or stream is used by species proposed or listed by the federal government or the state as endangered, threatened, rare, sensitive or monitored, critical or outstanding potential habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or

c. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts; or

d. The adjacent land has minimal vegetative cover or slopes greater than 15 percent or, if less than 15 percent, the project proponent is not being required to implement buffer enhancement plans.

6. Abrogation. Nothing in this section or chapter abrogates, compromises or otherwise subordinates the full force, effect and applicability of the Washington State Shoreline Management Act.

7. Preexisting Uses within a Buffer. A use or structure established prior to the effective date of the ordinance codified in this chapter which does not conform to standards set forth herein is allowed to continue and be reasonably maintained; provided, that such activity or structure shall not be expanded or enlarged in any manner that increases the extent of its nonconformity.

8. Repair of Buffer Areas Damaged During Construction. Except as otherwise specified, wetland/stream buffer zones shall be retained in their natural condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.

9. Allowable Uses in a Critical Area Buffer – Permitted Uses in a Buffer Zone. Regulated activities shall not be allowed in a buffer zone except for the following:

Commented [SE19]: Check with commerce guidance

a. Activities having minimal adverse impacts on buffers and no adverse impacts on regulated wetlands. These may include low intensity, passive recreational activities such as:

i. Construction and use of trail systems and trail support systems designed with adequate storm water management and natural erosion control features. Trails shall be located only in the outer 25 percent of a wetland buffer, with barriers to intrusion on the side of the trail closer to the critical area, and should avoid damaging significant trees and other habitat elements;

ii. Nonpermanent wildlife watching blinds, short-term scientific or educational activities;

iii. Sports fishing or hunting activities; and

iv. Storm water discharge devices designed to spread runoff along the delineated edge of the wetland or stream;

b. With respect to buffers adjacent to Category ~~II,~~ III~~,~~ and IV wetlands, storm water management facilities may be placed in a wetland buffer if:

i. There is no reasonable alternative location for constructing and operating a storm water management system;

ii. The applicant can demonstrate to the administrator that locating the runoff management (runoff collection, storage, and dispersal) system within the buffer is critical to maintaining wetland hydrology; and

iii. The storm water discharge is dispersed along, not concentrated at, the delineated edge of the wetland (the interface between the wetland and the buffer); or

c. With respect to Category III and IV wetlands, mandatory development-related land use activities having no feasible alternative location. If the administrator allows such development activities within the standard buffer, all buffer impacts shall be

mitigated per a mitigation plan approved by the administrator. ~~(Ord. 2572 § 4, 2015; Ord. 2293 § 2 (Exh. A), 2005).~~

19.02.100 Fish and wildlife conservation areas – Habitat types and buffer widths.

A. Finding of Fact. There are eight types of habitat listed in WAC ~~365-190-080(5)~~ 365-190-130 to be considered for ~~designated~~ designation as fish and wildlife habitat conservation areas (FWHCAs). ~~In addition, there are six considerations to be factored into the designation process. Within~~ The city of Enumclaw's urban growth boundary~~the city of Enumclaw and its urban growth areas there are only two types of habitat present that will be classified or designated as fish and wildlife habitat conservation areas. The two types are stream habitat and buffers (riparian areas) adjacent to regulated streams or water bodies.~~encompasses the following types of FWHCAs listed in WAC 365-190-130:

1. Areas where federal and state endangered, threatened, and sensitive species have a primary association;

~~2~~6. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;

~~3~~7. Waters of the state;

Commented [SE20]: This is not listed in WAC 365-190-130

~~The latter will be important in the overall effort to restore and enhance salmonid habitat as well as for creating open space corridors adjacent to the two major watercourses in, or in close proximity to, the city. Those two watercourses, Boise Creek and Newaukum Creek, and their associated buffers will be candidate areas for critical area mitigation opportunities that are consistent with goals and objectives defined in the city's comprehensive plan and in the watershed restoration and management plans being developed in water resource inventory area (WRIA) 9, which is the Green River watershed, and in WRIA 10, which is the White River watershed.~~

Commented [AT21]: I don't think it's necessary/helpful to keep this bit

Commented [CP22R21]: sounds good.

B. Technical Information. The following is a list of technical information to be included in a critical areas report (see Appendix E of this chapter) prepared by a qualified professional for submittal to the city as part of a critical areas permit:

1. Using standard field data collection methods, a qualified professional will identify and delineate stream and riparian habitats located within and immediately adjacent to a proposed project site.

2. Habitat areas suited for any life stage of any endangered, threatened, and sensitive species or priority habitats defined by the Washington State Department of Fish and Wildlife shall be identified, delineated, and reported to the city.

3. The investigation shall include relative density and species richness, breeding, habitat, seasonal range dynamics and movement corridors.

4. The analysis shall address the relative tolerance by species of human activities.

5. The development proposal shall be evaluated in terms of its influence on the above wildlife factors.

6. The location of ~~fish-bearing~~all streams within 200 feet of the project site, corresponding buffers, and the high water mark shall be identified on a site plan that shall be included in the critical areas report.

7. The administrator will review the technical information presented in the critical areas report. Based upon the description of potential development-related impacts and the discussion of potential risk of impacts to fish and wildlife species as well as their respective habitats, the administrator will recommend the need for preparation of a mitigation plan.

8. The administrator shall require the applicant to submit a final critical areas report identifying fish and wildlife habitat conservation areas (or the lack thereof) and including a mitigation plan as necessary prior to approval of any development-related permits, including a critical areas permit.

C. Stream~~s and Watercourses~~Type. ~~Streams and watercourses are classified primarily on the basis of salmonid fish use.~~ Streams are ~~Formerly these habitat features were~~ classified using the Washington State Department of Natural Resources (DNR) water typing system (WAC 222-16-030) or as amended~~, a system designed to regulate forest practices in areas adjacent to wetlands, watercourses, and water bodies. The list below shows the original water type and the revised water type~~:

1. ~~Type 1 water, which has been changed to~~ Type S ~~for streams and watercourses of~~means all waters within their bankfull width which are regulated as "shorelines of the state" by the City of Enumclaw Master Program Chapter 15.36 EMC ~~statewide significance~~;

2. Type F means segments of natural waters other than Type S waters, which contain fish habitat and are within the bankfull widths of defined channels. These includes periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water.~~Type 2 water, which has been changed to Type F for fish-bearing streams with perennial flow;~~

Commented [CP23]: I think this is not a completed thought?

Commented [SE24R23]: Edited.

3. Type Np~~,~~ means all segments of natural waters within the bankfull width of defined channels that are perennial non-fish habitat streams. Perennial streams are flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow~~for streams with perennial or intermittent flow, but without direct fish use; Type 3 water, which has been changed to Type F for fish-bearing streams with intermittent flow;~~

~~4. Type 4 water, which has been changed to Type Np for streams with perennial or intermittent flow, but without direct fish use;~~

~~5.~~4. Type Ns 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, non-fish 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. Ns Waters must be physically connected by an above-ground channel system to Type S, F, or Np Waters~~Type 5 water, which has been changed to Type Ns for intermittent and ephemeral streams or watercourses that are not used by fish, but have enough flow energy to scour a stream channel to mineral soil;~~

~~6. Type 5 water, which has been changed to Type O for watercourses that do not have enough flow energy to scour a stream channel to mineral soil or bedrock and that do not have fish use. This latter type is sometimes referred to as a swale or drainage swale.~~

D. Stream buffer. A buffer, consisting of natural vegetation, shall be required along all streams as classified by the DNR water typing classification system (WAC 222-16-030). The native growth buffer shall be established on both sides of the stream or watercourse and shall extend landward from the ordinary high water of the water body. The following buffer widths are the standard buffer width requirements:

~~DNR Water~~ Type S	100-foot buffer
~~DNR Water~~ Type F	~~75~~100-foot buffer
~~DNR Water~~ Type Np	~~50~~60-foot buffer
~~DNR Water~~ Type Ns	~~25~~30-foot buffer

~~Water Type O is not a DNR classification, but has been adopted into this chapter to provide regulatory guidance for vegetated swales. The city will not impose a buffer requirement on water Type O unless the administrator is convinced, on the basis of available field data and personal knowledge, that a buffer is needed to protect downstream critical areas from a risk of significant adverse impact due to on-site water quality degradation.~~

1~~D~~. Buffer Width Averaging, Reduction, and Enlargement. If approved by the administrator, buffer width averaging, buffer width reduction, and buffer width enlargement will be consistent with the provisions specified in EMC 19.02.090.

Commented [SE25]: It is either a stream, or not a stream per definition. I think that this is confusing. "Stream" means an aquatic area where surface water produces a channel, not including a wholly artificial channel, unless it is:
A. Used by salmonids; or
B. Used to convey a stream that occurred naturally before construction of the artificial channel.

Commented [CP26R25]: i agree. Is this a statutory definition? i think they are trying to differential between a ditch?

Commented [SE27R25]: Deleted.

Commented [CP28]: I hate this statement. i am convinced? trying to defend this in a permit decision seems like a bar that i'd rather not have to jump over. Is it possible to just state the these are not required a buffer and be done with it?

Commented [AT29R28]: Agreed and per WDFW comment, they would like to see this deleted too

E. Other Habitat areas. Protection standards for fish and wildlife conservation areas not otherwise addressed are as follows:

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

2. Buffers shall be based on recommendations provided by the Washington Department of Fish and Wildlife Priority Habitat Species (PHS) Program; provided that where no such recommendations are available, the buffer width shall be determined based on published literature concerning the species/habitat(s) in question and/or the opinions and recommendations of qualified professional with appropriate expertise.

F. Naturally Occurring Ponds under 20 Acres. Naturally occurring ponds are those ponds under 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.

1. Buffers shall be the same as for those for streams subsection D above.

2. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.

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19.02.110 Resource lands.

Mineral resource lands may only be developed in accordance with Chapter 19.28 EMC. ~~(Ord. 2293 § 2 (Exh. A), 2005).~~

19.02.120 Critical areas maps and databases.

A. The city shall maintain inventory maps showing the general locations of critical areas as well as a database with supporting information. Each critical area will have its own individual map or overlay. These maps shall be available for use by public and private entities.

B. There are maps in the current comprehensive plan that show the approximate location and extent of critical areas in the city. These maps are not intended to be used for site engineering or planning and are not a substitute for the critical areas identification and delineations process required in other sections of this chapter. Additional critical areas are presumed to exist, and are protected under all the provisions of this chapter. In the event that any of the critical area designations shown on the map conflict with the criteria set forth in this chapter, the criteria shall control. ~~(Ord. 2293 § 2 (Exh. A), 2005).~~

Article III. Critical Area Permits

19.02.130 General requirements.

No regulated activity shall occur within a critical area, or its associated buffer, without the project proponent or applicant having applied for and obtained a critical area permit (see Type I and II permits, EMC Title 15), unless said regulated activity requires another Type I through V permit, in which case said other Type I through V permit shall be the vehicle by which compliance with this chapter is verified. ~~(Ord. 2293 § 2 (Exh. A), 2005).~~

19.02.140 Application.

A. Who Must Apply. Any individual, company, agency, or other entity proposing to undertake a regulated activity in the city must apply for a Type I through Type V permit (per EMC Title 15) prior to initiating any site-altering activity that is not allowed under EMC 19.02.020.

B. Information Requirements. The administrator is authorized to adopt written information requirements for critical area permits (refer to Appendix E of this chapter). Unless the city waives one or more of the following information requirements, application for a critical area permit under this chapter includes, but is not limited to, the following information:

1. Name and contact information for the project proponent or applicant;

2. Address and/or legal description of the proposed project site;

3. A description of the site, including the size of the proposed site;

4. A description of adjacent properties, including a description of the current use(s) on those properties, a description of the vegetation and vegetation conditions on those properties, the name(s) and contact information for all adjacent property owners, and a listing of any easements that will be needed on adjacent properties or that exist on the proposed project site that grant use to entities other than the project site owner(s);

5. A description of the proposed project activity;

6. A critical areas report that documents the ecological, aesthetic, economic, or other values of the critical areas, including a discussion of the methodology used to identify, delineate, and survey critical areas described in the report (refer to Appendix B of this chapter for minimum report content requirements);

7. Site plan(s) or site map(s) at a scale no smaller than one inch equals 40 feet showing the entire parcel of land owned (or under a contract to purchase) by the applicant. In addition the site plan or site map must show:

a. All critical area boundaries and their associated buffers identified and delineated within and in close proximity to the proposed project;

b. Existing and proposed site topography and drainage features (i.e., ditches, streams, culverts, pipelines, etc.);

c. All significant trees, which includes all conifers with a six-inch dbh or greater and all deciduous species with an eight-inch or greater dbh;

d. All existing structures, utilities, roadways, and other site improvements; and

e. The proposed storm water management plan;

8. A description of site development alternatives and an evaluation of those alternatives vis-à-vis any proposed critical area alterations. Include a rationale for not avoiding or minimizing impacts to critical areas identified within the project site;

9. A mitigation plan may be submitted to the administrator at the time the applicant submits a critical areas permit application (or a Type III through Type V permit application) or the administrator may allow the applicant to defer submittal of the mitigation until after the preliminary project design has been reviewed by the administrator. The applicant will be required, however, to submit a final mitigation plan (see Appendix C of this chapter for mitigation plan requirements) describing mitigation projects for all unavoidable critical area impacts before any project permits are approved by the administrator. The final mitigation plan shall include baseline information, environmental goals and objectives, a financial guarantee quantity worksheet to "bond" the proposed mitigation activities, detailed construction plans, performance standards, a three- to five-year monitoring program, and a contingency plan.

C. Preparation of a Critical Areas Report. A critical areas report (see Appendices B and D of this chapter) must be prepared by a qualified professional (critical areas consultant) with expertise in the critical area of concern, as defined in this chapter.

1. The critical areas consultant will be retained by the applicant to complete any of the following activities: critical area site analysis and evaluation, site restoration and/or enhancement, and site development plan or project design. The consultant will be selected from a list of qualified professionals (as defined in WAC 365-195-905(4) and Appendix D of this chapter) that shall be maintained by and on file with the administrator.

2. The applicant may use the professional services of any qualified professional to assist with critical areas assessment and reporting whether they are or are not listed on the city-maintained list. The administrator may request a qualification statement from any consultant providing professional services to an applicant, particularly when critical areas assessments and reporting are part of a proposed land use action or development plan.

D. Critical Area Boundary. Critical area boundary shall be determined by the applicant through the performance of a field investigation.

1. The administrator, when requested by the applicant, may waive the delineation of the boundary requirement for the applicant and, in lieu of delineation by the applicant, perform the delineation.

a. Per WAC-173-22-035, ~~All~~ all wetland delineations will be completed in accordance with the methodologies defined in the ~~U.S. Army Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1) an the Washington State Wetlands Identification and Delineation Manual (WDOE Publication No. 96-94)~~1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0); or in accordance with future revised delineation manuals required by federal and state agencies.

2. The administrator shall consult with qualified critical areas consultants and technical experts or other experts as needed to perform the delineation.

3. The applicant may be charged for the costs incurred in accordance with the provisions of this section.

4. Where the administrator delineates a wetland at the request of the applicant, such delineation shall be considered a final determination.

5. Where the applicant delineates the critical area boundary, the administrator shall verify the accuracy of, and may adjust, the boundary. If the applicant contests the adjusted boundary, the administrator shall, at the applicant's expense, obtain expert services to render a final delineation.

E. Best Available Science. A critical areas report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance and reference the source of science used. The critical areas report shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this chapter. Recommendations for buffer width averaging, buffer width reduction, and buffer impact mitigation actions must be based in best available science, which includes local expertise and site-specific knowledge.

F. Additional Studies. When an applicant submits an application for a critical area permit, the application shall indicate whether any environmentally critical area is located on the site. If the administrator determines that sufficient environmental information to evaluate a proposal is not available, the administrator shall notify the applicant that special environmental studies are required.

1. Special environmental studies may include a comprehensive site inventory and analysis, a wetland study, a geotechnical study, a discussion of potential impacts from the proposed development, and specific measures designed to mitigate any potential on- or off-site adverse environmental impacts of the applicant's proposal.

2. The administrator shall develop and maintain a detailed list of required study contents.

3. All special studies shall be completed by a firm or individual selected, in concert between the city and the applicant, from a list of qualified professional critical area consultants that is maintained by and available from the administrator.

19.02.150 Permit review.

A. As part of the permit review process, the city shall:

1. Verify the information submitted by the applicant;

2. Evaluate the available current city critical areas maps and data files to determine if there are identified critical areas within or in close proximity to the proposed project site. The administrator may require the applicant to submit a critical area reconnaissance report (CARR) form (see Appendix B of this chapter) to assist in the determination regarding the presence of identified and regulated critical areas. The CARR form must be prepared by a qualified professional;

3. Determine whether the proposed project is likely to impact the functions or values of critical areas; and

4. Determine if the proposed project adequately addresses the impacts and avoids impacts to the critical area associated with the project.

B. If the proposed project is within, adjacent to, or is likely to impact a critical area, the city shall:

1. Require the applicant to complete a field study of the project site and immediate surrounding area to the administrator. The applicant shall be required, at a minimum, to submit a critical areas report (see Appendix B of this chapter) to the administrator. The critical areas report must be prepared by a qualified professional;

2. Review and evaluate the critical areas report. The city may hire a third party consultant, at the applicants expense, to review the application materials for the critical area permit.;

3. Determine whether the development proposal conforms to the purposes and performance standards of this chapter, including the criteria in EMC 19.02.160(A) and (B). ~~(Ord. 2293 § 2 (Exh. A), 2005).~~

~~4. The city at the applicants expense may hire a third party consultant to review the application materials for the critical area permit.~~

Commented [CP31]: This may not be written well, but i want to be clear that we can do this, and i'm never been certain that we can. And i don't see where in our existing code we can do this, without the city expending it's own funds, so i'd like something in here like this

Commented [CP32]: This may not be written well, but i want to be clear that we can do this, and i'm never been certain that we can. And i don't see where in our existing code we can do this, without the city expending it's own funds, so i'd like something in here like this

19.02.160 Criteria for permit review, approval, denial, and issuance.

A. A permit shall only be granted if the permit, as conditioned, is consistent with the purposes and intent of this chapter. Additionally, permits shall only be granted if:

1. A proposed action follows mitigation sequencing as described in EMC 19.02.230(B)(1).~~:~~

~~a. Avoids significant adverse impacts to critical areas; or~~

~~b. Takes affirmative and appropriate measures to minimize significant adverse impacts to critical areas; or~~

~~c. Mitigates (compensates for) unavoidable significant adverse impacts to critical areas; and~~

~~d. Assures no net loss of wetland function and value;~~

2. The proposal is compatible in design, scale, and use with other development or potential development in the area; and

3. The proposed actions implement, to the maximum extent possible, the best available construction, design, and development techniques that will result in the least adverse impact to the critical area.

B. Any alteration to a critical area, unless otherwise provided for in this chapter, shall be reviewed and approved, approved with conditions, or denied based on the proposal's ability to comply with all of the following criteria:

1. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing, EMC 19.02.230;

2. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

3. The proposal is consistent with the general purposes of this title and the public interest;

4. Any alterations permitted to the critical area are mitigated in accordance with mitigation requirements, EMC 19.02.250;

5. The proposal protects the critical area functions and values consistent with the best available science and results in no net loss of critical area functions and values; and

Commented [AT33]: I think per WDFW's comment, we refer to where mitigation sequencing is described in detail - and then just remove this to reduce any confusion/inconsistencies between two versions of the same sequencing

Commented [CP34R33]: perfect

6. The proposal is consistent with all other applicable local, state, and federal regulations and standards.

C. The city may condition the proposed activity as necessary to mitigate impacts to critical areas and to conform to the standards required by this chapter.

D. Except as provided for by this chapter, any project that cannot adequately mitigate its impacts to critical areas in the sequencing order of preferences in EMC 19.02.230 shall be denied.

E. Favorable Determination. If the administrator determines that the proposed activity meets the criteria in this section and complies with the applicable provisions of this chapter, the administrator shall prepare a written notice of determination and identify any required conditions of approval. The notice of determination and conditions of approval shall be included in the project file and be considered in the next phase of the city's review of the proposed activity in accordance with any other applicable codes or regulations.

1. Any conditions of approval included in a notice of determination shall be attached to the underlying permit or approval. Any subsequent changes to the conditions of approval shall void the previous determination pending rereview of the proposal and conditions of approval by the administrator.

2. A favorable determination should not be construed as endorsement or approval of any underlying permit or approval.

F. Unfavorable Determination. If the administrator determines that a proposed activity does not adequately mitigate its impacts on the critical areas and/or does not comply with the criteria in subsection B of this section and the provisions of this chapter, the administrator shall prepare written notice of the determination that includes findings of noncompliance.

1. No proposed activity or permit shall be approved or issued if it is determined that the proposed activity does not adequately mitigate its impacts on the critical areas and/or does not comply with the provisions of this chapter.

2. Following notice of determination that the proposed activity does not meet the review criteria and/or does not comply with the applicable provisions of this chapter, the applicant may request consideration of a revised critical areas report. If the revision is found to be substantial and relevant to the critical area review, the administrator may reopen the critical area review and make a new determination based on the revised report.

G. Completion of the Critical Area Review. The city's determination regarding critical areas pursuant to this chapter shall be final concurrent with the final decision to approve, condition, or deny the development proposal or other activity involved.

H. Appeals. Any decision to approve, condition, or deny a development proposal or other activity based on the requirements of this chapter may be appealed according to, and as part of, the appeal procedure for the permit or approval involved.

19.02.170 Variance.

A. Variance. Variances from the standards of this chapter may be authorized by the administrator in accordance with the procedures set forth in the zoning variance section of the city code. The city council shall review the request and make a written finding that the request meets or fails to meet the variance criteria.

B. Variance Criteria. A variance may be granted only if the applicant demonstrates that the requested action conforms to all of the criteria set forth as follows:

1. Special conditions and circumstances exist that are peculiar to the land, the lot, or something inherent in the land, and that are not applicable to other lands in the same district;

2. The special conditions and circumstances do not result from the actions of the applicant;

3. A literal interpretation of the provisions of this chapter would deprive the applicant of all reasonable economic uses and privileges permitted to other properties in the vicinity and zone of the subject property under the terms of this chapter, and the variance requested is the minimum necessary to provide the applicant with such rights;

4. Granting the variance requested will not confer on the applicant any special privilege that is denied by this chapter to other lands, structures, or buildings under similar circumstances;

5. The granting of the variance is consistent with the general purpose and intent of this chapter, and will not further degrade the functions or values of the associated critical areas or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property;

6. The decision to grant the variance includes the best available science and gives special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish habitat; and

7. The granting of the variance is consistent with the general purpose and intent of the current comprehensive plan and adopted development regulations.

C. Conditions May Be Required. In granting any variance, the city may prescribe such conditions and safeguards as are necessary to secure adequate protection of critical areas from adverse impacts, and to ensure conformity with this chapter.

D. Time Limit. The city shall prescribe a time limit of five years within which the action for which the variance is required shall have begun, be completed, or both. Failure to begin or complete such action within the established time limit shall void the variance.

E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and upon which any decision has to be made on the application.

19.02.180 Permit fees.

A. Filing Fees. At the time of a critical area permit application, the applicant shall pay a filing fee determined by the city fee resolution.

B. Financial Guarantees. At the time of a critical area permit approval, the applicant will be required to post a financial guarantee for all critical area alteration mitigation activities. The financial guarantee shall be paid prior to initiating any activities in a critical area. The financial guarantee amount will vary by project and may be determined by:

1. The applicant securing three bona fide bids from experienced landscaping contractors or qualified critical area restoration contractors to install, maintain, and monitor a mitigation plan that has been approved by the administrator. The highest bid will determine the bond amount. The administrator can, at the applicant's expense, solicit an independent bid for installation, maintenance, and monitoring of the approved plan if the administrator believes the applicant's submittal is significantly lower than expected.

2. The administrator can prepare, or have prepared, a standard bond quantity worksheet to determine the bond quantity.

3. The applicant depositing a cash deposit in a joint city/applicant interest-bearing account at a local financial institution.

a. Interest accrued while the cash deposit is held in deposit at the financial institution will be deposited in the applicant's interest account.

b. No funds will be dispersed from the cash account or the interest account unless the applicant fails to implement the approved mitigation plan within a reasonable time period (12 months) following approval of the mitigation plan and site plans and the initiation of construction.

c. If the applicant fails to perform as directed in the approved mitigation plan, both the interest and cash accounts will be forfeited by the applicant to the administrator.

4. Financial guarantees posted for mitigation projects will be posted in two parts, a construction guarantee and a maintenance/monitoring guarantee. After the applicant has implemented the construction and planting phases of the mitigation project and the mitigation effort is approved by the administrator, the construction portion of the financial guarantee will be released to the applicant. Following the end of the five-year maintenance and monitoring period and a review by the administrator indicating the project has been approved, the maintenance and monitoring financial guarantee will be released to the applicant.

Article IV. Development Standards for Critical Areas

19.02.190 Critical area development standards.

A. Area of Special Flood Hazard – Development Standards. In all areas of special flood hazard where base flood elevation data has been provided as set forth in EMC 19.02.060(B)(1)(a), Basis for Establishing the Areas of Special Flood Hazard, or EMC 19.02.060(C)(1), Uses of Other Base Flood Data, the following standards are required:

1. Anchoring.

a. All new construction and substantial improvement, including those related to manufactured homes, shall be anchored to prevent flotation, collapse or lateral movement of structures resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy.

b. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, the use of over-the-top or frame ties to ground anchor (reference FEMA-85, "Manufactured Home Installation in Flood Hazard Areas" for additional techniques).

2. Construction Materials and Methods.

a. All new construction and substantial improvement shall be constructed with materials and utility equipment resistant to flood damage.

b. All new construction and substantial improvement shall be constructed using methods and practices that minimize flood damage.

c. Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during the condition of flooding.

3. Utilities.

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the system into floodwaters.

c. On-site waste disposal systems shall be located to avoid impairment or contamination of systems or from systems during flooding.

d. Water wells shall be located on high ground that is not in the floodway.

4. Subdivision Proposals – Area of Special Flood Hazard.

a. All subdivision proposals shall be consistent with the need to minimize flood damage.

b. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.

c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

d. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).

5. Review of Building Permits – Area of Special Flood Hazard. Where elevation data is not available either through the flood insurance study, FIRM, or from another authoritative source, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment by the administrator and includes the use of historical data, high water marks, photographs of past floods, etc., where available to determine flood level. Failure to elevate at least two feet above the highest adjacent grade in these zones may result in higher insurance rates.

6. Residential Construction – Area of Special Flood Hazard.

a. In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained, new construction or substantial improvement of any

residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation. Mechanical equipment and utilities shall be waterproof or elevated at least one foot above the BFE.

b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for entry and exit of floodwaters. Design for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

(2) The bottom of all openings shall be no higher than one foot above grade.

(3) Openings shall be equipped with screens, louvers, valves, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

(4) A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of floodwaters.

c. New construction and substantial improvement of any residential structure in an unnumbered A zone for which a BFE is not available and cannot be reasonably obtained shall be reasonable safe from flooding, but in all cases the lowest floor shall be at least two feet above the highest adjacent grade.

7. Nonresidential Construction – Area of Special Flood Hazard. New construction or substantial improvement of any commercial, industrial or other nonresidential structure shall meet the requirements of subsection (A)(7)(a) or (b) of this section:

a. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet all of the following requirements:

(1) In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained: The lowest floor, including basement, shall be elevated one foot or more above the BFE, or elevated as required by ASCE 24, whichever is greater. Mechanical equipment and utilities shall be waterproofed or elevated at least one foot above the BFE, or as required by ASCE 24, whichever is greater.

(2) If located in an unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the highest adjacent grade.

(3) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

(b) The bottom of all openings shall be no higher than one foot above grade.

(c) Openings may be equipped with screens, louvers, valves, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

(d) An attached garage, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of floodwaters.

b. If the requirements of subsection (A)(7)(a) are not met, then new construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet all of the following requirements:

(1) Be dry floodproofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water or dry floodproofed to the elevation required by ASCE 24, whichever is greater;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of the buoyancy;

(3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based upon their development and/or review of the structural design, specifications and plans. Such certification shall be provided to the official as set forth above;

(4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (A)(6) of this section;

(5) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based upon rates that are one foot below floodproofed level (e.g., a building floodproofed to one foot above the base flood level will be rated as at the base flood level).

8. Manufactured Homes – Area of Special Flood Hazard. All manufactured homes to be placed or substantially improved within zones A1-30, AH and AE on the community's FIRM shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation; and be securely anchored to an adequately anchored foundation system in accordance with the provisions set forth in subsection (A)(1)(b) of this section.

9. Recreational Vehicles – Area of Special Flood Hazard. Recreational vehicles placed on sites are required to either:

a. Be on the site for fewer than 180 days;

b. Be fully licensed and ready for highway use, on their wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached editions; or

c. Meet the requirements of subsection (A)(8) of this section.

10. Floodways – Area of Special Flood Hazard. Floodways are areas as designated in the section involving basis for establishing areas of special flood hazards, EMC 19.02.060(B)(1)(a). Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

a. Prohibit encroachments, including fill, new construction, substantial improvement and other development unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the encroachment shall not result in increased flood levels during the occurrence of the base flood discharge.

b. Construction or reconstruction of residential structures is prohibited within designated floodways, except for:

(1) Repairs, construction or improvements to a structure which do not increase the ground floor area; and

(2) Repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either:

(a) Before the repair, reconstruction or improvement has started; or

(b) If the structure has been damaged, and is being restored, before damage occurred.

(3) Any improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions as determined by the administrator or to structures identified as historical places shall not be included in the 50 percent.

c. If subsection A of this section is satisfied, all new construction and substantial improvement shall comply with the applicable flood hazard reduction provisions as set forth in the provisions for flood hazard reduction.

d. The city will control the degree of alteration of natural floodplains, wetlands, stream channels and natural protective barriers to help accommodate the storage or channeling of floodwaters, through provisions in the adopted storm water design manual regulations.

11. Changes to Special Flood Hazard Area.

a. If a project will alter the BFE or boundaries of the SFHA, then the project proponent shall provide the community with engineering documentation and analysis regarding the proposed change. If the change to the BFE or boundaries of the SFHA would normally require a letter of map change, then the project proponent shall initiate, and receive approval of, a conditional letter of map revision (CLOMR) prior to approval of the development permit. The project shall be constructed in a manner consistent with the approved CLOMR.

b. If a CLOMR application is made, then the project proponent shall also supply the full CLOMR documentation package to the floodplain administrator to be attached to the floodplain development permit, including all required property owner notifications.

12. Storage of Materials and Equipment.

a. The storage or processing of materials that could be injurious to human, animal, or plant life if released due to damage from flooding is prohibited in special flood hazard areas.

b. Storage of other material or equipment may be allowed if not subject to damage by floods and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.

13. Enclosed Area Below the Lowest Floor. If buildings or manufactured homes are constructed or substantially improved with fully enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

14. For A Zones (A, AE, A1-30, AH, AO):

a. Appurtenant structures used solely for parking of vehicles or limited storage may be constructed such that the floor is below the BFE, provided the structure is designed and constructed in accordance with the following requirements:

(1) Use of the appurtenant structure must be limited to parking of vehicles or limited storage;

(2) The portions of the appurtenant structure located below the BFE must be built using flood resistant materials;

(3) The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement;

(4) Any machinery or equipment servicing the appurtenant structure must be elevated or floodproofed to or above the BFE;

(5) The appurtenant structure must comply with the floodway encroachment provisions in subsection (A)(10)(a) of this section;

(6) The appurtenant structure must be designed to allow for the automatic entry and exit of floodwaters in accordance with subsection (A)(6)(b) of this section;

(7) The structure shall have low damage potential;

(8) If the structure is converted to another use, it must be brought into full compliance with the standards governing such use; and

(9) The structure shall not be used for human habitation.

b. Detached garages, storage structures, and other appurtenant structures not meeting the above standards must be constructed in accordance with all applicable standards in subsection (A)(6) of this section.

c. Upon completion of the structure, certification that the requirements of this section have been satisfied shall be provided to the Floodplain Administrator for verification.

15. AE and A1-30 Zones with Base Flood Elevations but No Floodways. In areas with BFEs (when a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation more than one foot at any point within the community.

16. General Requirements for Other Development. All development, including manmade changes to improved or unimproved real estate for which specific provisions are not specified in this chapter or the state building codes with adopted amendments and any Enumclaw amendments, shall:

a. Be located and constructed to minimize flood damage;

b. Meet the encroachment limitations of this chapter if located in a regulatory floodway;

c. Be anchored to prevent flotation, collapse, or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design flood;

d. Be constructed of flood damage-resistant materials;

e. Meet the flood opening requirements of subsection (A)(6)(b) of this section; and

f. Have mechanical, plumbing, and electrical systems above the design flood elevation or meet the requirements of ASCE 24, except that minimum electrical service required to address life safety and electrical code requirements is permitted below the design flood elevation provided it conforms to the provisions of the electrical part of the building code for wet locations.

B. Geologically Hazardous Areas – Development Standards.

1. Erosion hazards. All development proposals on sites containing erosion hazard areas shall include a stormwater pollution prevention plan consistent with the requirements of the adopted stormwater manual and a mitigation plan to ensure revegetation and permanent stabilization of the site.

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2. Seismic Hazards. Development may be allowed in seismic hazard areas when all of the following apply:

a. Structures in seismic hazard areas shall conform to applicable analysis and design criteria of the International Building Code.

b. Public roads, bridges, utilities and trails shall be designed in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual or other appropriate document.

3. Landslide hazard areas. Alterations of landslide hazard areas or associated buffers may only occur for activities that:

a. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions; and

b. Will not adversely impact other critical areas; and

c. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and

d. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist licensed in the state of Washington.

C. Critical Aquifer Recharge Areas – Development Standards. The following uses are prohibited if the use is likely to affect the critical aquifer recharge area:

1. Class V injection wells that inject industrial, municipal, or commercial waste fluids (as defined in WAC 173-218-030);

2. Surface impoundments for treating, storing and disposing of dangerous waste (as defined in WAC 173-303-040 and 173-304-100);

3. Waste piles for treating or storing solid waste (as defined in WAC 173-303-040, 173-303-660 and 173-304-420);

4. Hazardous waste treatment, storage, and disposal (as defined in WAC 173-303-040);

5. All types of solid waste landfills (as defined in WAC 173-304-100);

6. Recycling facilities that accept, store, or use hazardous substances as defined in WAC 173-218-030.

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7. Underground storage of hazardous substances as defined in WAC 173-218-030, excluding the underground storage of petroleum and other substances as regulated by Chapter 173-360A WAC;

8. Use, storage, treatment, or production of perchlorethylene (PCE) or tetrachloroethylene (PERC), other than in closed-loop systems that do not involve any discharge of chemicals;

9. Petroleum refining, reprocessing, and storage, excluding the underground storage of petroleum products and other substances as regulated by Chapter 173-360A WAC;

10. Petroleum-product pipelines not associated with underground storage of petroleum and other regulated substances as regulated by Chapter 173-360 WAC; and

11. Storage or distribution of gasoline treated with the additive methyl tertiary butyl ether (MTBE).

19.02.200 Critical areas management incentives.

A. Limited Density Transfer.

1. For development proposals on lands containing Category II, III or IV wetlands and any category of wetland buffers, the administrator shall determine allowable dwelling units for residential development proposals based on the formulas below.

2. The following formula for density calculations is designed to provide incentives for the preservation of wetlands and wetland buffers, flexibility in design, and consistent treatment of different types of development proposals. The formula shall apply to all properties within existing residential zones on which wetlands and wetland buffers are located.

3. The maximum number of dwelling units (DU) for a lot or parcel which contains wetlands and wetland buffers shall be equal to:

(Acres in Wetland or Buffer) x (DU/Acre) x *(Density Credit)*

4. The density credit figure is derived from the following table:

Percentage of Site in Buffer	Density Credit
100%	100%
90%	90%
80%	80%
70%	70%

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Percentage of Site in Buffer	Density Credit
60%	60%
50%	50%
40%	40%
30%	30%
20%	20%
10%	10%

5. The density credit can only be transferred within the development proposal site. To the extent that application of the formula may result in lot sizes less than the minimum allowed by the underlying district, they are hereby authorized; provided, that the resultant lot is no less than 50 percent of the required size. In no event shall a reduction in lot size result in lot sizes less than 7,200 square feet or result in a change in use from that allowed in the underlying zone district. Deductions of up to 50 percent for setbacks and width at building are also authorized as long as the lot standards do not conflict with the family of International Building Code requirements.

6. The administrator shall require and approve a binding site plan, submitted by the applicant indicating lot sizes, lot configurations, building envelopes, and elevations, and structure profiles as a condition of allowing any reduction on the standards of the underlying zone. Any density credit (for wetlands only) resulting in reduction of standards for the underlying zone district shall also require a variance from the board of adjustment.

B. Nonmonetary Compensation for Voluntary Increases in Critical Habitat Set-Asides. This is a program by which the city would provide nonmonetary compensation for applicants or landowner cooperation in establishing larger than the minimum required buffers adjacent to designated critical areas or riparian areas adjacent to aquatic habitats such as streams, ponds, or lakes.

1. An example of this program would be the administrator compensating a land owner (whose active agricultural operation initiated prior to the adoption of any sensitive or critical areas regulations) for voluntarily creating buffers adjacent to a stream to protect the fish and wildlife habitat and protect water quality.

a. As an example, the city could supply the materials and labor to install and maintain the fencing necessary to exclude livestock from the stream channel and its associated buffer as compensation for the voluntary establishment of buffers; or

b. The city could supply the materials and labor needed to install off-channel livestock watering facilities; or

c. The city would supply the farmer with a quantity of hay equivalent to the amount of hay lost due to creating the buffer set-aside.

2. To fund this type of compensation program, the city is hereby authorized to:

a. Levy a conservation fee on all dairy and meat products sold at retail outlets located within the limits of the city; or

b. The city could negotiate a perpetual grant from the salmon recovery fund to fund the projects and use a nonprofit entity dedicated to salmon habitat restoration (i.e., Mid-Sound Fisheries Enhancement Group) to implement the program.

C. Open Space, Forestry, and Agricultural Current Use Assessment Programs. Under established programs authorized by state law (Chapter 83.34 RCW and related sections) the administrator could encourage an applicant or applicants as property owners to seek property tax relief as compensation for establishing minimum required buffers adjacent to critical areas when they are exempt under the current Chapter 19.02 EMC.

1. The administrator is hereby authorized to develop a tax relief information packet and provide said packet to land owners in the city of Enumclaw and immediately surrounding areas.

2. The administrator would have the authority to prepare documents indicating the designation of property currently designated as open space, forestry, and agricultural to critical area buffer, a designation that should lower tax liability on the dedicated lands.

3. The administrator would also be authorized to prepare property tax relief requests for properties that an applicant or applicants designated as fish and wildlife habitat conservation areas or critical area buffers. (Ord. 2293 § 2 (Exh. A), 2005).

19.02.210 Critical area tracts and easements.

A. Critical Area Management Tracts. As a condition of any permit, the city may require the permit holder to create a separate critical area management tract containing the areas determined to be critical areas. Critical area management tracts are legally created tracts containing critical areas, and compensation areas that shall remain undeveloped in perpetuity, except for allowed activities pursuant to this chapter. Critical area management tracts are an integral part of the lot in which they are created, are not intended for sale, lease or transfer, and shall be included in the area of the parent lot for purposes of subdivision method and minimum lot size.

B. Protection of Critical Area Management Tracts. The city may require, as a condition of any permit, that the critical area management tracts be protected and maintained in perpetuity by a critical area management easement which must be recorded. In addition, an entity that will be responsible for the maintenance and protection of the critical area tract must be designated as part of the permit.

C. Marking During Construction. The location of the outer extent of the critical area or associated buffer, as applicable, and the areas to be disturbed pursuant to an approved permit shall be marked in the field to prevent unnecessary disturbance by individuals and equipment during the development or construction of the permitted activity. Such field markings shall be approved by the city prior to the commencement of permitted activities. Such field markings shall be maintained throughout the duration of the permit.

D. Permanent Marking. The city may require the boundary of a critical area management tract be permanently identified by signs, the location, size, and wording of which must be approved by the administrator. These signs should be worded as follows: “Protection of this natural area is in your care. Alteration or disturbance is prohibited by law. Please call the city community development department for more information.”

E. Additional Requirements. Site-specific criteria shall be developed to determine if additional conditions are warranted to ensure the preservation and protection of critical areas are needed. These conditions include, but are not limited to, fencing, educational signage, and other passive recreational amenities. ~~(Ord. 2293 § 2 (Exh. A), 2005).~~

19.02.220 Deed restrictions and setbacks.

A. Deed Restrictions. The permit holder shall establish and record a permanent and irrevocable deed restriction on the property title of all lots containing critical area management tracts created as a condition of this permit. Such deed restriction(s) shall prohibit in perpetuity the development, alteration, or disturbance of vegetation within the critical area management tract except for allowed activities and regulated activities allowed by a permit issued pursuant to this chapter.

B. Setbacks. Building setbacks must be recorded on the property title for all critical areas identified and delineated on the project site and in close proximity of the project site. As it pertains to the provisions of this chapter, a building setback is an additional open area between the delineated edge of an identified critical area and a permanent structure or improvement.

1. Major structures and improvements shall be set back 25 feet from any landslide critical area tract, and 15 feet from any flood hazard zone, or erosion hazard critical area tract. Major structures and improvements shall be set back a minimum of 15 feet from the outer edge of any wetland or stream buffer.

2. The administrator may increase the setback to protect the proposal or adjacent properties from adverse impacts and may decrease the setback if the reduction does not result in significant adverse impacts to the proposal or adjacent properties. The setback can be decreased to no less than 10 feet. ~~(Ord. 2293 § 2 (Exh. A), 2005).~~

Article V. Mitigation of Critical Area Impacts

19.02.230 Mitigation sequencing – Decision criteria.

A. Eligibility for Reasonable Use Exception Application.

1. It is the city's responsibility to review all regulated land use activities and approve only those land use proposals that will not adversely impact public health and safety, public investments in infrastructure, and natural resources managed as a public trust.

2. It is the responsibility of an applicant requesting plan approval and development permits for a proposed land use action to ensure that all reasonable and practical project alternatives have been thoroughly evaluated in an effort to avoid adversely impacting public health and safety, public investments in infrastructure, and natural resources managed as a public trust.

3. To be consistent with the goals and objectives of its current comprehensive plan and the provisions of this chapter, the city shall require an applicant to clearly demonstrate that all efforts have been exhausted in the process of preparing a proposed development plan (land use activity).

4. The applicant having exhausted all reasonable and practical efforts to avoid impacts, it is the responsibility of the administrator to ensure that all unavoidable impacts to regulated critical areas are mitigated.

B. Compensatory Mitigation – Decision Criteria. Compensatory mitigation for alterations to critical areas, particularly wetlands and fish and wildlife habitat conservation areas, shall, in a reasonable period of time, achieve equivalent or greater biologic function within the critical area altered or in a viable alternative mitigation area. Compensatory mitigation plans shall be consistent with best available science (BAS), watershed approach to mitigation siting, as well as local knowledge and expertise.

1. Mitigation of critical area impacts associated with a proposed land use activity shall be required in the following order of preference:

a. Impact avoidance: avoiding the impact altogether by not taking a certain action or parts of an action. When it has been demonstrated, to the satisfaction of the administrator, that impact avoidance is neither practical nor prudent, the administrator shall approve one of the following, in descending order of preference;

b. Impact minimization: minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;

c. Impact rectification: rectifying the impact by repairing, rehabilitating, or restoring the affected environment. This may include off-site mitigation areas and the

restoration of previously impacted habitats in other critical areas; provided, that a watershed approach to mitigation siting (see Ecology Publication No. 09-06-032) is required;

d. Impact reduction over time: reducing or eliminating the impact over time by preservation and maintenance operations;

e. Impact compensation: compensating for the impact by replacing, enhancing, or providing substitute resources or environments. This may include mitigation alternatives such as wetland mitigation banking, fee-in-lieu, credit-debit method (reference Ecology Publication No. 10-06-011) and other creative approaches to mitigation that will result in a net increase in critical area function and value.

f. Monitoring the impact and taking appropriate corrective measures.

C. Minimizing Wetlands Impacts – Decision Criteria. After it has been determined by the city council, based on information presented to the council by the administrator and the applicant, that the loss of critical areas is necessary and unavoidable or that all reasonable economic use has been denied:

1. The applicant shall implement project planning and implementation measures intended to minimize critical area impacts; and

2. Efforts to minimize critical area impacts shall include but are not limited to:

a. Limiting the degree or magnitude of the regulated activity;

b. Limiting the implementation of the regulated activity;

c. Using appropriate and best available technology;

d. Taking affirmative steps to avoid or reduce impacts;

e. Sensitive site design and siting of facilities and construction staging areas away from regulated wetlands and their buffers;

f. Involving resource agencies early in site planning; and

g. Providing protective measures such as siltation curtains, hay bales and other siltation prevention measures, scheduling the regulated activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities.

D. Mitigation of Unavoidable Critical Area Impacts as Part of a Reasonable Use Exception. If the administrator has determined that implementation of an applicant's land use proposal results

in adverse impacts to critical areas identified within, or immediately adjacent to, the proposed project site and the application of the provisions of this chapter would deny all reasonable use of the property, the administrator may allow a proposed development that is consistent with the general purposes of this chapter and the public interest to proceed; provided, that the city council finds that:

1. Enforcement of the provisions of this chapter would otherwise deny all reasonable use of the property;

2. There is no other reasonable use with less impact on the wetland;

3. The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the property;

4. Any proposed alteration of the wetland is the minimum necessary to allow for reasonable use of the property;

5. There is no feasible on-site alternative, including reduction in density and site-planning considerations;

6. The inability to derive reasonable economic use from the property is not the result of actions by the applicant in segregating or dividing the property and creating the undevelopable condition after the effective date of the ordinance codified in this chapter.

19.02.240 Mitigation plans.

A. All wetland enhancement, restoration, or creation projects required pursuant to this chapter either as a permit condition or as the result of an enforcement action shall follow a mitigation plan prepared by a qualified professional and approved by the administrator.

1. Preparation of the mitigation report is an expense borne by the applicant and/or violator.

2. The minimum content of a critical area mitigation plan is outlined in Appendix C of this chapter.

3. Unless the administrator, in consultation with a qualified professional, determines, based on the size and nature of the development proposal, the nature of the impacted wetland, and the degree of cumulative impacts on the wetland from other development proposals, that the scope and specific requirements of the mitigation plan may be reduced from what is listed in Appendix B of this chapter, the mitigation plan shall include information in response to every item listed.

B. The applicant or violator shall receive written approval of the mitigation plan by the city prior to commencement of any wetland restoration, creation or enhancement activity.

C. Permit Conditions. Any compensation project prepared pursuant to this section and approved by the city shall become part of the application for the permit.

D. City personnel reviewing the mitigation plan and the applicant's consultants or staff preparing the mitigation plan are encouraged to consult with and solicit comments of any federal, state, regional, or local agency, including tribes, having any special expertise with respect to any environmental impact prior to approving a mitigation proposal which includes wetlands compensation.

E. The mitigation plan may be reviewed by other agency personnel for compliance with other state and federal regulations. The applicant is encouraged to provide sufficient, clear, and concise information regarding the proposed mitigation plan design and implementation in order for such agencies to comment on the overall adequacy of the mitigation proposal in a timely manner. Approval of a proposed mitigation plan by the city does not mean that the plan has been approved by other reviewing agencies.

F. Compensatory wetland mitigation is not required for regulated activities:

1. For which a permit has been obtained for critical area impacts that will only occur in the outer 50 percent of a buffer, or expanded buffer, and which have no adverse impacts to regulated wetlands or no significant reduction in buffer function and value; or

2. Allowed activities pursuant to EMC 19.02.020(B), provided such activities utilize best management practices to protect the functions and values of regulated wetlands.

19.02.250 Critical area impact mitigation.

A. As a condition of any permit allowing alteration of critical areas, or as an enforcement action pursuant to Chapter 15.12 EMC, the city shall require that the applicant engage in the restoration, creation or enhancement of critical areas and their buffers in order to offset the impacts resulting from the applicant's actions.

B. The applicant shall develop a plan (see Appendix C of this chapter) that provides for land acquisition (if necessary), construction, maintenance and monitoring of replacement wetlands that provides equal or greater functions and values as the original wetlands.

C. The overall goal of any critical areas mitigation project designed and implemented to compensate for wetland or fish and wildlife habitat conservation area impacts shall be no net loss of habitat (wetland, stream, riparian area, buffer, pond, etc.) functions and values and to strive for a net resource gain in habitat functions and values over present conditions. Compensation should be completed, whenever it is feasible, prior to any critical area alteration.

D. 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 similar protocol; or

2. Out-of-kind replacement will best meet formally identified watershed goals, such as replacement of historically diminished wetland types.

E. 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.

a. 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.

F. Type and Location of Mitigation. Preference shall be given to the location of the mitigation in the following order, ~~Unless~~ unless it ~~is~~ can be demonstrated that a higher level of ecological functioning would result from an alternate mitigation approach: ~~, compensatory mitigation for ecological functions shall be:~~

1. On-site, in-kind compensation should be provided except where the applicant can demonstrate that:

a. The hydrology and ecosystem of the original wetland and those who benefit from the hydrology and ecosystem will not be significantly adversely impacted by the on-site loss; and

b. On-site compensation is not scientifically feasible due to problems with hydrology, soils, waves, or other factors; or

c. Compensation is not practical due to potentially adverse impact from surrounding land uses; or

d. Existing functional values at the site of the proposed restoration are significantly greater than lost wetland functional values; or

e. Local or regional goals for flood storage, flood conveyance, habitat or other wetland functions have been established and strongly justify location of compensatory measures at another site.

2. Off-site, within the same stream reach or watershed, in-kind compensation shall occur within the same stream reach or ~~watershed~~ sub-basin as the wetland loss occurred; provided, that Category IV wetlands may be replaced outside of the watershed when there is no reasonable alternative and local or regional environmental goals are furthered by this action.

3. Either ~~in-kind and~~ on-site and in-kind, or off site ~~in-kind and~~ within the same stream reach~~,~~ or sub-basin~~, or drift cell~~ in-kind. Mitigation actions shall be conducted within the same subdrainage basin and on the same site as the alteration except when all of the following apply:

Commented [AT35]: Drift cell is related to shorelines - deleted

a. 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, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);

b. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and

c. 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.

4. In selecting compensation sites, applicants shall pursue mitigation sites in the following order of preference:

a. Degraded wetland sites;

b. Upland sites which were formerly wetlands;

c. Upland sites generally having bare ground or vegetative cover consisting primarily of exotic introduced species, weeds, or emergent vegetation;

d. Other disturbed upland.

G. Mitigation Timing. Mitigation projects shall be completed and the approved monitoring plan activated prior to initiating any ground or vegetation disturbing activities in a critical area.

1. In all other cases, mitigation shall be completed immediately following disturbance and prior to issuance of a certificate of occupancy or the use of the project site or development that was conditioned upon the completion of such compensation or mitigation projects.

2. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

3. If the applicant submits a written request for a temporary delay in an aspect of the mitigation plan implementation, the administrator may authorize a one-time-only temporary delay, up to 120 days, in completing minor construction and landscaping when environmental conditions present a high probability of failure or significant construction or plant installation 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.

a. 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.

H. Mitigation Ratios. Mitigation ratios refer to the amount of area required to mitigate a wetland impact or the mitigation effort required to mitigate wetland function and value lost in a smaller area than was impacted by a land use activity.

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.

Wetland Category	Mitigation Ratio
I	3:1
II	2:1

Wetland Category	Mitigation Ratio
III	1.5:1
IV	1:1

a. The first number specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

b. These ratios do not apply to remedial actions resulting from unauthorized alterations; greater ratios shall apply in those cases.

c. 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.

2. Function and Value Replacement Ratios. The administrator may reduce the mitigation ratios listed above if the applicant proposes to mitigate for critical area impacts by enhancing previously impacted wetlands to increase the wetland category.

a. For example, an applicant may have a need to mitigate for impacts to an isolated 7,500 square feet of highly degraded pasture wetland (wet meadow) dominated by grass species and facultative emergent species. The applicant proposes off-site mitigation through the restoration (enhancement) of a 5,000-square-foot scrub-shrub/emergent adjacent to a salmonid-bearing stream without a functional buffer by lowering the whole mitigation area into the floodplain, grading a small open water area fed by surface flow and ground water, an emergent area with greater plant diversity and a lengthened hydroperiod, the addition of snags and large woody debris, and planting the buffer with tree, shrub, and groundcover species. The administrator would be consistent with the provisions in this chapter by approving the applicant's proposed mitigation plan.

3. Increased Replacement Ratio. The administrator may increase the ratios for wetland enhancement, restoration, or creation projects under the following circumstances:

a. Uncertainty exists as to the probable success of the proposed restoration or creation; or

b. A significant period of time will elapse between impact and replication of wetland functions; or

c. Projected losses in functional value; or

d. Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or

e. The impact was an unauthorized impact.

4. Decreased Replacement Ratio. The administrator may decrease these ratios if:

a. Findings of special studies coordinated with agencies with expertise demonstrate that no net loss of critical area function or value is attained under the decreased ratio;

b. If a compensatory mitigation project is undertaken adjacent to riverine, riparian, or wetland systems and increases the overall functions and values of these systems; or

c. If compensatory mitigation successfully occurs in advance of the proposed wetland altering activity.

19.02.260 Alternative mitigation strategies.

A. Wetland Mitigation Banking and In-Lieu Fee (ILF) Mitigation Opportunities.

1. Credits from a wetland mitigation bank or federally certified in-lieu fee (ILF) program may be approved for use as compensation for unavoidable impacts to wetlands, fish and wildlife conservation areas and other aquatic resources when:

a. The bank is certified by WDOE under Chapter 173-700 WAC or the federally certified ILF program is certified by the U.S. Army Corps of Engineers per federal regulations (33 CFR Part 332 and 40 CFR Part 230, Subpart J);

b. The administrator determines that the wetland mitigation bank or federally certified ILF program provides appropriate compensation for wetland, fish and wildlife conservation areas or other aquatic resource impacts associated with the applicant's project; and

c. The proposed use of credits is consistent with the terms and conditions of the bank or ILF program's certification.

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

3. Credits from a certified wetland mitigation bank or ILF program may be used to compensate for impacts located within the service area specified in the bank or ILF program's certification.

B. Cooperative Restoration, Creation or Enhancement Projects. The city may encourage, facilitate, and approve cooperative projects wherein a single applicant, group of applicants, or other entity with demonstrated capability may undertake a compensatory mitigation project with funding from each of the applicants or another source under the following circumstances:

1. Restoration, creation, or enhancement at an individual location (site) may be scientifically or economically impractical, difficult, or impossible; or

2. Creation of one or several larger wetlands, riparian areas, or buffer areas in an off-site location may be preferable to the mitigation of many small wetlands in their existing on-site locations; or

3. Restoration/relocation of a previously degraded stream channel in conjunction with the creation of floodplain wetlands, riparian corridors, and enhanced buffers may have a greater benefit to fish and wildlife production in the watershed than smaller individual mitigation projects located within current or future project sites; and

4. The applicant or applicants proposing cooperative compensation projects shall:

a. Submit a cooperative project mitigation plan prepared by a qualified professional that contains the information required listed in Appendix B of this chapter;

b. Demonstrate compliance with the provisions of this chapter and all standards, rules, requirements, and regulations enforced by other resource management agencies with jurisdictional interest in the proposed project;

c. Demonstrate, in the form of contractual agreements or verifiable funding sources (i.e., an escrow account), that the organizational and fiscal capability to act cooperatively are in place and are perpetual;

d. Demonstrate that long-term management capability can and will be provided through the entire life of the project; and

e. Obtain all state and federal permits and approvals necessary for the compensation project prior to making formal application to the city.

f. Note: This is an opportunity for individual land owners contemplating or anticipating future development opportunities to occur on the lands collectively to form a legal entity for the purpose of eliminating small, low function and value Category III and Category IV wetlands located on their individual properties and cooperatively mitigating the individual impacts in a larger off-site location in advance of the actual critical area impacts. The same concept can be used to restore and/or relocate stream habitat or to connect isolated areas of wildlife habitat.

19.02.270 Mitigation area performance standards.

A. Compensatory mitigation shall follow an approved mitigation plan pursuant to EMC 19.02.140(B)(9) and shall meet the following minimum performance standards:

1. Given the uncertainties in scientific knowledge and the need for expertise and monitoring, critical area compensatory mitigation projects may be permitted only when the city finds that the mitigation project is associated with an activity or development otherwise permitted and that the restored, created, or enhanced wetland will be as persistent as the wetland it replaces.

2. Additionally, the applicant shall:

a. Demonstrate sufficient scientific expertise (including current knowledge of best available science), supervisory capability, and financial resources to carry out the proposed mitigation project;

b. Demonstrate the capability to adequately monitor the site and to maintain (make corrections) the mitigation area during the monitoring period so the mitigation project does not fail to meet the environmental goals and performance standards defined in the approved mitigation plan; and

c. Protect and manage, or provide for the protection and management of, the mitigation area to avoid future development-related impacts or degradation within the mitigation area and to provide for long-term persistence of the compensation area.

3. Wetland functions and values shall be calculated using the best professional judgment of a qualified professional using the best available techniques.

Article VI. Floodplain Variance Procedure

19.02.300 Nature of variances.

A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this chapter would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants or the property owners.

It is the duty of the city of Enumclaw to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the base flood elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this article are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate. This criteria is specific to frequently flooded areas in EMC 19.02.060.

19.02.310 Conditions for variances.

A. Variances shall only be issued:

1. Upon a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances; and

2. Upon a showing of good and sufficient cause; and

3. Upon a determination that failure to grant the variance would result in exceptional hardship to the applicant.

B. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

C. Variances may be issued for the repair, rehabilitation or restoration of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

D. Variances shall not be issued within any floodway if any increase in flood levels during the base flood discharge would result.

E. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood elevation, provided the procedures of EMC 19.02.060(C) and 19.02.065 are followed. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

F. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use; provided, that (1) the criteria of subsections A through E of this section are met, and (2) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

19.02.320 Variance criteria.

A. In considering variance applications, the city shall consider all technical evaluations, all relevant factors, standards specified in other sections of this article, and:

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger of life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;

7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. The safety of access to the property in time of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and

11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, water system and streets and bridges.

B. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:

1. The issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as $25.00 for $100.00 of insurance coverage; and

2. Such construction below the base flood elevation increases risks to life and property.

C. The floodplain administrator shall maintain a record of all variance actions, including justification for their issuance.

Appendices

Appendix A Wetland rating criteria.

Different types of wetlands are separated from one another on the basis of wetland class and wetland category. The former is a scientific system based upon dominant plant communities, substrate conditions, hydrologic regime, and location in the "watershed." The latter is a categorization system used to regulate land uses adjacent to wetlands.

A. Wetland Class. Wetland class is a science- based classification system based on a U.S. Fish and Wildlife Service publication titled "Classification of Wetlands and Deepwater Habitats of the United States" that was edited by Lewis M. Cowardin et al. and published in December 1979. Cowardin divides wetlands into five systems (marine, estuarine, riverine, lacustrine, and palustrine), eight subsystems (subtidal, intertidal, tidal, lower perennial, upper perennial, intermittent, limnetic, and littoral), 10 classes, and numerous modifiers. A combination of the system name, subsystem, name, class, and a modifier forms a code that identifies the wetland class.

The WDOE expanded the term "wetland class" by incorporating use of the HGM (hydrogeomorphic method) classification into the Washington State Wetland Rating System for Western Washington (WDOE Publication No. 14-06-029 or as hereafter revised and approved by Ecology). The HGM is based on the "landscape" location of a wetland or portion of a wetland. The HGM classes are depressional, riverine, lake-fringe, slope, flats, and freshwater tidal.

B. Wetland Category. In the city, wetland category is used to regulate activities within and adjacent to wetlands and in determining the width of the wetland buffer. The wetland category is determined after a wetland has been identified and delineated. Wetland category is determined using the current Washington State Wetland Rating System for Western Washington (WDOE Publication No. 14-06-029 or as hereafter revised and approved by Ecology).

The WDOE document contains the definitions and scoring methods used for determining if the wetland rating criteria outlined in this Appendix A are met. Note that streams and lakes are not rated as wetlands, but rather are classified and rated as fish and wildlife conservation areas (EMC 19.02.100).

C. Wetland Rating. Wetlands shall be rated according to the Washington Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington (Ecology Publication No. 14-06-029, or as revised and approved by Ecology), which contains the definitions and methods for determining whether the criteria below are met.

1. Category I. Category I wetlands are: (a) relatively undisturbed estuarine wetlands larger than one acre; (b) wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR; (c) bogs; (d) mature and old-growth forested wetlands larger than one acre; (e) wetlands in undisturbed coastal lagoons; (f) interdunal wetlands that score eight or nine habitat points and are larger than one acre; and (g) wetlands that perform many functions well (scoring 23 points or more). These wetlands: (a) represent unique or rare wetland types; (b) are more sensitive to disturbance than most wetlands; (c) are relatively undisturbed and contain ecological

attributes that are impossible to replace within a human lifetime; and (d) provide a high level of functions.

2. Category II. Category II wetlands are: (a) estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre; (b) interdunal wetlands larger than one acre or those found in a mosaic of wetlands; (c) disturbed coastal lagoons or (d) wetlands with a moderately high level of functions (scoring between 20 and 22 points).

3. Category III. Category III wetlands are: (a) wetlands with a moderate level of functions (scoring between 16 and 19 points); (b) can often be adequately replaced with a well-planned mitigation project; and (c) interdunal wetlands between 0.1 and one acre. ~~Wetlands scoring between 16 and 19 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.~~

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

Appendix B Critical areas report content.

Note: The information items listed below represent the minimum information requirements to be included in a critical areas report (refer also to Appendix E of this chapter). Further, if a critical areas report is required by the administrator in accordance with EMC 19.02.130 and Appendix E of this chapter, the applicant shall submit a critical areas report prepared by a qualified professional as defined in Appendix D of this chapter.

1. A description of the vegetative cover of the critical area and adjacent area including dominant species;

2. A site plan for the proposed activity at a scale no smaller than one inch equals 40 feet showing the location, width, depth and length of all existing and proposed structures, roads, sewage treatment, and installations within and adjacent to critical areas;

3. The exact sites and specifications for all regulated activities including the amounts and methods;

4. Elevations of the site and adjacent lands within the critical areas at contour intervals of no greater than two feet;

5. Typical cross-section views of the critical area to scale;

6. The purposes of the project and an explanation why the proposed activity cannot be located at other sites, including an explanation of how the proposed activity is dependent upon critical areas;

7. A study of flood, erosion, or other hazards at the site and the effect of any protective measures that might be taken to reduce such hazards;

8. A critical areas report that documents the ecological, aesthetic, economic, or other values of the critical areas, including a discussion of the methodology used to identify, delineate, and survey critical areas described in the report (refer to this Appendix B);

9. A description of site development alternatives and an evaluation of those alternatives vis-à-vis any proposed critical area alterations. Include a rationale for not avoiding or minimizing impacts to critical areas identified within the project site;

10. A mitigation plan may be submitted to the administrator at the time the applicant submits a critical areas permit (or a Type III through Type V permit application) or the applicant can defer submittal of the mitigation until after the preliminary project design has been reviewed by the administrator. The applicant will be required, however, to submit a final mitigation plan describing mitigation projects for all unavoidable critical area impacts before any project permits are approved by the administrator. The final mitigation plan shall include baseline information, environmental goals and objectives, a financial guarantee quantity worksheet to bond the proposed mitigation activities, detailed construction plans, performance standards, a three-to-five-year monitoring program, and a contingency plan.

Appendix C Mitigation plan requirements.

When mitigation is required, the applicant shall submit, for approval by the administrator, a mitigation plan as part of the critical areas report (unless a deferral is granted by the administrator per EMC 19.02.140(B)(9)). The mitigation plan shall include:

A. Baseline Information. A written assessment and accompanying maps drawn to an appropriate scale of the:

1. Impacted wetland including, at a minimum, wetland delineation; existing wetland acreage; vegetative, faunal, and hydrologic characteristics; soil and substrate conditions; topographic elevations;

2. Impacted wetland functions and values shall be described using the system approved by the administrator; and

3. Compensation site, if different from the impacted wetland site, including at a minimum: existing acreage; vegetative, faunal and hydrologic conditions; relationship within

watershed and to existing water bodies; soil and substrate conditions; topographic elevations; existing and proposed adjacent site conditions; buffers; and ownership.

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

1. 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;

2. A review of the best available science supporting the proposed mitigation and a description of the report author's experience to date in restoring or creating the type of critical area proposed;

3. An analysis of the likelihood of success of the compensation project duplicating the original wetland shall be provided based on the experiences of comparable projects, if any; and

4. An analysis of the likelihood of persistence of the created or restored wetland shall be provided based on such factors as surface and ground water supply and flow patterns, dynamics of the wetland ecosystem, sediment or pollutant influx and/or erosion, periodic flooding and drought, etc., presence of invasive flora or fauna, potential human or animal disturbance, and previous comparable projects, if any.

C. 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 chapter have been met. Such criteria may include water quality standards, survival rates of planted vegetation, species abundance and diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.

D. Detailed Construction Plans. The mitigation plan submitted to the administrator for review and approval shall include written specifications and descriptions of the mitigation proposed, such as:

1. The proposed construction sequence, timing, and duration;

2. Grading and excavation details;

3. Erosion and sediment control features needed for wetland construction and long-term survival;

4. A planting plan specifying plant species, quantities, locations, sizes, spacing, and density; source of plant materials, propagules, or seeds; water and nutrient requirements for planting; planting instructions and, where appropriate, measures to protect plants from predation;

5. Specification of substrate stockpiling techniques and soil augmentation instructions;

6. Specifications for supplemental irrigation systems and a description of conditions that warrant supplemental irrigation;

7. Descriptions of water control and water-level maintenance practices needed to achieve the necessary hydrocycle/hydroperiod characteristics, etc.; and

8. Measures required for protecting and maintaining plants until they are established, including staking of tree species for a period of five years.

These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps prepared by a PLS (professional licensed surveyor) licensed in the state of Washington showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome. The plan shall provide for elevations which are appropriate for the desired habitat type(s).

E. Monitoring Program. A program outlining the approach for monitoring construction of the compensation project and for assessing a completed project shall be provided. Monitoring may include, but is not limited to, one or more of the following:

1. Establishing vegetation plots to track changes in plant species composition and density over time;

2. Using photo stations to evaluate vegetation community response;

3. Sampling surface and subsurface waters to determine pollutant loading, and changes from the natural variability of background conditions (pH, nutrients, heavy metals);

4. Measuring base flow rates and storm water runoff to model and evaluate water quality predictions, if appropriate;

5. Measuring sedimentation rates, if applicable; and

6. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity.

A protocol shall be included outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the compensation project. The plan will identify the applicant's

responsibility for completing an “as-built” survey of the mitigation site after the planting has been completed. A monitoring report documenting milestones, successes, problems, maintenance activities, and contingency actions of the compensation project shall be submitted to the administrator annually, at a minimum, no later than November 15th each year. The first year’s mitigation monitoring report will include a copy of the “as-built” survey.

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 three to five years, with three to five years being authorized by the administrator only when there is overwhelming evidence that the environmental goals and objectives of the mitigation site have been achieved.

F. 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.

G. Demonstration of Competence. A demonstration of financial resources, administrative, supervisory, and technical competence and scientific expertise of sufficient standing to successfully execute the compensation project shall be provided. A compensation project manager shall be named and the qualifications of each team member involved in preparing the mitigation plan and implementing and supervising the project shall be provided, including educational background and areas of expertise, training and experience with comparable projects.

H. Financial Guarantees. The mitigation plan shall include financial guarantees, as determined by the administrator, 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 EMC 19.02.180(B).

Appendix D Definitions.

The definitions provided in this appendix apply to the critical area regulations in this chapter.

“Agricultural drainage” means any stream, ditch, tile system, pipe or culvert primarily used to drain fields for horticultural or livestock activities.

“Agricultural land” means any land primarily used for cultivation, farming, horticultural or livestock activities, consistent with RCW 84.33.100 through 84.33.140.

“Alteration” means any human activity that results or is likely to result in an impact upon the existing condition of a critical area or its buffer. “Alteration” includes, but is not limited to, grading, filling, dredging, channelizing, applying herbicides or pesticides or any hazardous substance, discharging pollutants except storm water, grazing domestic animals, paving, constructing, applying gravel, modifying topography for surface water management purposes, cutting, pruning, topping, trimming, relocating or removing vegetation or any other human

activity that results or is likely to result in an impact to existing vegetation, hydrology, fish or wildlife or their habitats. “Alteration” does not include passive recreation such as walking, fishing or any other similar activities.

“Alteration of watercourse” means any action that will change the location of the channel occupied by water within the banks of any portion of a riverine water body.

“Applicant” means a property owner, a public agency or a public or private utility that owns a right-of-way or other easement or has been adjudicated the right to such an easement under RCW 8.08.040, or any person or entity designated or named in writing by the property or easement owner to be the applicant, in an application for a development proposal, permit or approval.

“Aquatic area” means any nonwetland water feature including all shorelines of the state, rivers, streams, marine waters, inland bodies of open water including lakes and ponds, reservoirs and conveyance systems and impoundments of these features if any portion of the feature is formed from a stream or wetland and if any stream or wetland contributing flows is not created solely as a consequence of storm water pond construction. “Aquatic area” does not include water features that are entirely artificially collected or conveyed storm or wastewater systems or entirely artificial channels, ponds, pools or other similar constructed water features.

“Area of special flood hazard” is the land in the floodplain within a community subject to one percent or greater chance of flooding in any given year. Designations on maps always include the letter A or V. It is shown on the flood insurance rate map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR. “Special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard.”

“Bank stabilization” means an action taken to minimize or avoid the erosion of materials from the banks of rivers and streams.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year (also referred to as the “100-year flood”).

“Base flood elevation (BFE)” means the elevation to which floodwater is anticipated to rise during the base flood.

“Basement” means, for purposes of development proposals in a flood hazard area, any area of a building where the floor subgrade is below ground level on all sides.

“Best management practice” means a schedule of activities, prohibitions of practices, physical structures, maintenance procedures and other management practices undertaken to reduce pollution or to provide habitat protection or maintenance.

“Bioengineering” means the use of vegetation and other natural materials such as soil, wood and rock to stabilize soil, typically against slides and stream flow erosion. When natural materials alone do not possess the needed strength to resist hydraulic and gravitational forces, “bioengineering” may consist of the use of natural materials integrated with human-made fabrics and connecting materials to create a complex matrix that joins with in-place native materials to provide erosion control.

“Buffer” means a natural, preferably undisturbed, area contiguous to a critical area; an area designated to separate and protect a critical area from potential impacts of associated adjacent land use activities; an area of natural or native growth required to support the functions and stability of a critical area.

“Channel” means a feature that contains and was formed by periodically or continuously flowing water confined by banks.

“Channel edge” means the outer edge of the water’s bankfull width or, where applicable, the outer edge of the associated channel migration zone.

“Channel migration zone” means those areas within the lateral extent of likely stream channel movement that are subject to risk due to stream bank destabilization, rapid stream incision, stream bank erosion and shifts in the location of stream channels, as shown on Enumclaw’s channel migration zone maps. “Channel migration zone” means the corridor that includes the present channel, the severe channel migration hazard area and the moderate channel migration hazard area. “Channel migration zone” does not include areas that lie behind an arterial road, a public road serving as a sole access route, a state or federal highway or a railroad. “Channel migration zone” may exclude areas that lie behind a lawfully established flood protection facility that is likely to be maintained by existing programs for public maintenance consistent with designation and classification criteria specified by public rule. When a natural geologic feature affects channel migration, the channel migration zone width will consider such natural constraints.

“Clearing” means cutting, killing, grubbing or removing vegetation or other organic plant material by physical, mechanical, chemical or any other similar means. For the purpose of this definition of “clearing,” “cutting” means the severing of the main trunk or stem of woody vegetation at any point.

“Critical aquifer recharge area” means an area designated on the critical aquifer recharge area map adopted by this chapter that has a high susceptibility to ground water contamination or an area of medium susceptibility to ground water contamination that is located within a sole source aquifer or within an area approved in accordance with Chapter 246-290 WAC as a wellhead protection area for a municipal or district drinking water system, or an area over a sole source aquifer for a private potable water well in compliance with Washington State Department of Ecology (WDOE) and Public Health standards. Susceptibility to ground water contamination occurs where there is a combination of permeable soils, permeable subsurface geology and ground water close to the ground surface.

"Critical area" means any area that is subject to natural hazards or a land feature that supports unique, fragile or valuable natural resources including fish, wildlife or other organisms or their habitats or such resources that carry, hold or purify water in their natural state. "Critical areas" includes the following areas:

A. Frequently flooded areas;

B. Geologically hazardous areas (including mine hazard areas, erosion hazard areas, landslide hazard areas, steep slope hazard areas, seismic areas, and volcanic hazard areas);

C. Critical aquifer recharge areas;

D. Wetlands;

E. Fish and wildlife habitat conservation areas (including streams, rivers, ponds, lakes, estuaries, other aquatic areas, large concentrations of forested habitat within urban areas); and

F. Buffers associated with those critical areas.

"Development" means any manmade change to improved or unimproved real estate in the special flood hazard area (SFHA), including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of equipment or materials.

"Ditch" means an artificial ~~open channel~~drainage feature created in uplands through purposeful human action (such as irrigation and drainage ditches, grass-lined swales, and canals) used or constructed for the purpose of conveying water. The purposeful creation of ditches must be demonstrated through documentation, photographs, statements, and/or other evidence. Ditches are excluded from regulation as streams, unless they are used by native fish species. Development standards related to ditches are described in Enumclaw Municipal Code Chapter 14.10 Stormwater Management.

"Drainage basin" means a drainage area that drains to the Green River or White River or other drainage area that drains directly to Puget Sound.

"Drainage facility" means a feature, constructed or engineered for the primary purpose of providing drainage, that collects, conveys, stores or treats surface water. A drainage facility may include, but is not limited to, a stream, pipeline, channel, ditch, gutter, lake, wetland, closed depression, flow control or water quality treatment facility and erosion and sediment control facility.

"Drainage subbasin" means a drainage area identified as a drainage subbasin in a city-approved basin plan or, if not identified, a drainage area that drains to a body of water that is named and mapped and contained within a drainage basin.

Commented [AT36]: @Shook, Erika, by removing Water Type O, I think we should bulk up discussion of ditches.

I paralleled Kenmore code (Black Diamond's was confusing re: artificial wetlands and ditch conversation): https://www.codepublishing.com/WA/Kenmore/#!/html/Kenmore18/Kenmore1855.html

Commented [CP37R36]: This is great Tess, agreed.

“Emergency” means an occurrence during which there is imminent danger to the public health, safety and welfare, or that poses an imminent risk of property damage or personal injury or death as a result of a natural or human-made catastrophe.

“Engineer, civil, geotechnical and structural” shall mean the following:

A. “Civil engineer” means an engineer who is licensed as a professional engineer in the branch of civil engineering by the state of Washington;

B. “Geotechnical engineer” means an engineer who is licensed as a professional engineer by the state of Washington and who has at least four years of relevant professional employment; and

C. “Structural engineer” means an engineer who is licensed as a professional engineer in the branch of structural engineering by the state of Washington.

“Enhancement” means, for the purposes of critical area regulation, an action that improves the processes, structure and functions of ecosystems and habitats associated with critical areas or their buffers.

“Erosion” means the wearing away of the ground surface as the result of the movement of wind, water or ice.

“Erosion hazard area” means an area underlain by soils that is subject to severe erosion when disturbed. These soils include, but are not limited to, those classified as having a severe to very severe erosion hazard according to the United States Department of Agriculture Soil Conservation Service, the 1973 King County Soils Survey or any subsequent revisions or additions by or to these sources such as any occurrence of River Wash (“Rh”) and any of the following when the soils occur on slopes inclined at 15 percent or more:

A. Alderwood gravelly sandy loam (“AgD”);

B. Alderwood and Kitsap soils (“AkF”);

C. Beausite gravelly sandy loam (“BeD” and “BeF”);

D. Kitsap silt loam (“KpD”);

E. Ovall gravelly loam (“OvD” and “OvF”);

F. Ragnar fine sandy loam (“RaD”); and

G. Ragnar-Indianola association (“RdE”).

“Federal Emergency Management Agency” means the independent federal agency that, among other responsibilities, oversees the administration of the National Flood Insurance Program.

“Flood” or “flooding” means either:

A. A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters.

2. The unusual and rapid accumulation of runoff of surface waters from any source.

3. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in subsection (A)(2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in subsection (A)(1) of this definition.

“Flood elevation study” means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a flood insurance study (FIS).

“Flood fringe” means that portion of the floodplain outside of the zero-rise floodway.

“Flood insurance rate map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a digital flood insurance rate map (DFIRM).

“Floodplain” or “flood-prone area” means any land area susceptible to being inundated by water from any source. See “Flood” or “flooding.”

“Floodplain administrator” means the community official designated by title to administer and enforce the floodplain management regulations.

“Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or

improved real property, water and sanitary facilities, structures, and their contents. Floodproofed structures are those that have the structural integrity and design to be impervious to floodwater below the base flood elevation.

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Also referred to as “regulatory floodway.”

“Footprint” means the area encompassed by the foundation of a structure including building overhangs if the overhangs do not extend more than 18 inches beyond the foundation and excluding uncovered decks.

“Forest practice” means any forest practice as defined in RCW 79.06.020.

“Functionally dependent use” means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

Geologist. See definition of “Professional, qualified.”

“Grade” means the elevation of the ground surface. “Existing grade,” “finish grade” and “rough grade” are defined as follows:

A. “Existing grade” means the grade before grading;

B. “Finish grade” means the final grade of the site that conforms to the approved plan as required under EMC 19.02.190; and

C. “Rough grade” means the grade that approximately conforms to the approved plan as required under EMC 19.02.190.

“Ground cover” means competitive living plant species normally growing up to a maximum of 24 inches in height.

“Habitat” means the locality, site and particular type of environment occupied by an organism at any stage in its life cycle.

“Habitat conservation area, fish and wildlife” means an area for a species whose habitat the Enumclaw comprehensive plan requires the city to protect that includes an active breeding site and the area surrounding the breeding or lifecycle site that is necessary to protect breeding or lifecycle activity.

"Hazard tree" means a tree that represents an imminent threat or danger to public health or safety, to public or private property, or of serious environmental degradation due to factors including, but not limited to, rot, root damage, stem or limb damage, and/or leaning.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic structure" means any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

1. By an approved state program as determined by the Secretary of the Interior, or

2. Directly by the Secretary in states without approved programs.

"Impacts" means the effects or consequences of actions. Environmental impacts are effects upon the elements of the environment listed in WAC 197-11-444.

"Impervious surface" means a nonvertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle at natural infiltration rates including, but not limited to, roofs, swimming pools and areas that are paved, graveled or made of packed or oiled earthen materials such as roads, walkways or parking areas. "Impervious surface" does not include landscaping and surface water flow control and water quality treatment facilities.

"Infiltration rate" means the rate of transmission of water through soil, measured in inches per hour, or similar measurement unit.

"In-stream structure" means anything placed or constructed below the ordinary high water mark, including, but not limited to, weirs, culverts, fill and natural materials and excluding dikes, levees, revetments and other bank stabilization facilities.

“Invasive vegetation” means a plant species listed as obnoxious or noxious weeds on a noxious weed and/or invasive plant list adopted by King County, by the state of Washington, or by the federal government.

“Landslide hazard area” means an area subject to severe risk of landslide, such as:

A. An area with a combination of:

1. Slopes steeper than 15 percent of inclination;

2. Impermeable soils, such as silt and clay, frequently interbedded with granular soils, such as sand and gravel; and

3. Springs or ground water seepage;

B. An area that has shown movement during the Holocene epoch, which is from 10,000 years ago to the present, or that is underlain by mass wastage debris from that epoch;

C. An area potentially unstable as a result of rapid stream incision, stream bank erosion or undercutting by wave action;

D. An area that shows evidence of or is at risk from snow avalanches; or

E. An area located on an alluvial fan, presently or potentially subject to inundation by debris flows or deposition of stream-transported sediments.

“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, 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 nonelevation design requirements of this chapter (i.e., provided there are adequate flood ventilation openings).

“Maintenance” means the usual acts to prevent a decline, lapse or cessation from a lawfully established condition without any expansion of or significant change from that originally established condition. Activities within landscaped areas within areas subject to native vegetation retention requirements may be considered “maintenance” only if they maintain or enhance the canopy and understory cover. “Maintenance” includes repair work but does not include replacement work. When maintenance is conducted specifically in accordance with the Regional Road Maintenance Endangered Species Act Program Guidelines, the definition of “maintenance” in the glossary of those guidelines supersedes the definition of “maintenance” in this appendix.

"Mean sea level" means, for purposes of the National Flood Insurance Program, the vertical datum to which base flood elevations shown on a community's flood insurance rate map are referenced.

"Mitigation" means an action taken to compensate for adverse impacts to the environment resulting from a development activity or alteration (see EMC 19.02.230(B), Compensatory Mitigation – Decision Criteria, in Article V of this chapter).

"Mitigation bank" means a property that has been protected in perpetuity and approved by appropriate county, state and federal agencies expressly for the purpose of providing compensatory mitigation in advance of authorized impacts through any combination of restoration, creation or enhancement of wetlands and, in exceptional circumstances, preservation of adjacent wetlands and wetland buffers or protection of other aquatic or wildlife resources.

"Monitoring" means active management, reporting, measurement, and checking the progress of site restoration, enhancement, or rehabilitation efforts over a period of time; generally the time period is established by the code.

"Mulch" means organic material used to cover ground to retain moisture and control weeds.

"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, preventing or minimizing surface soil erosion, maintaining slope stability, buffering critical areas from potential impacts associated with adjacent land use activities, and protecting/preserving wildlife habitat. Typically the term "NGPA" is synonymous with the term "buffer" or "buffer zone."

"Native vegetation" means plant species indigenous to the Puget Sound region that reasonably could be expected to naturally occur on the site.

"Net buildable area" means the "site area" less the following areas:

A. Areas within a project site that are required to be dedicated for public rights-of-way in excess of 60 feet in width;

B. Critical areas and their buffers to the extent they are required by this chapter to remain undeveloped;

C. Areas required for storm water control facilities other than facilities that are completely underground, including, but not limited to, retention or detention ponds, biofiltration swales and setbacks from such ponds and swales;

D. Areas required to be dedicated or reserved as on-site recreation areas;

E. Regional utility corridors; and

F. Other areas, excluding setbacks, required to remain undeveloped.

"New construction" means, for the purposes of determining insurance rates, structures for which the start of construction commenced on or after the effective date of an initial flood insurance rate map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purpose, "new construction" means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

"Noxious weed" means a plant species that is typically nonnative, invasive, highly destructive, competitive or difficult to control by cultural or chemical practices, limited to any plant species listed on the state noxious weed list in Chapter 16-750 WAC, regardless of the list's regional designation or classification of the species. Noxious weeds may also possess characteristics that can cause distress or even death to animals that consume the plants.

"Ordinary high water mark" means the mark found by examining the bed and banks of a stream, lake, or pond water and ascertaining where the presence and action of waters are so common and long maintained in ordinary years as to mark upon the soil a vegetative character distinct from that of the abutting upland. In an area where the ordinary high water mark cannot be found, the line of mean high water in areas adjoining freshwater is the "ordinary high water mark." In an area where neither can be found, the top of the channel bank is the "ordinary high water mark." In braided channels and alluvial fans, the ordinary high water mark or line of mean high water includes the entire water or stream feature.

"Professional, qualified" means a person with training and experience in the scientific discipline, and who is a qualified scientific expert with expertise in streams, wetlands or lakes subject matter in accordance with WAC 365-195-905(4). A qualified professional must have obtained a Bachelor of Science degree in hydrology, soil science, botany, ecology, or a related field from an accredited college or university or who has equivalent educational training and professional experience related to the subject of habitat or species. Also includes fluvial morphologist if stream relocation is involved. Geologists are included as those professionals who hold an active license from the State of Washington Geology Board. A qualified wetland professional must be a Professional Wetland Scientist (PWS) or have a combination of the following: at least a Bachelor's degree in a relevant field (e.g., hydrology, botany, ecology, soil science), a minimum of two years of full-time experience in wetland delineation, report preparation, functional assessments, and mitigation planning, and/or completion of additional wetland-specific training programs, such as the University of Washington Wetland Science and Management Certificate Program or individual workshops related to wetland delineation, function assessment, mitigation design, hydrophytic plant or hydric soil identification.

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“Public road right-of-way structure” means the existing, maintained, improved road right-of-way or railroad prism and the roadway drainage features including ditches and the associated surface water conveyance system, flow control and water quality treatment facilities and other structures that are ancillary to those facilities, including catch-basins, access holes and culverts.

“Reasonable use exception” means the discretionary review process to determine the minimum permitted use possible of a site when the site is 65 percent to 100 percent covered by critical areas and associated buffers, and the critical area designation precludes the zoned allowable use of the parcel.

“Reclamation” means the final grading and restoration of a site to reestablish the vegetative cover, soil stability and surface water conditions to accommodate and sustain all permitted uses of the site and to prevent and mitigate future environmental degradation.

“Recreational vehicle” means a vehicle:

A. Built on a single chassis;

B. Four hundred square feet or less when measured at the largest horizontal projection;

C. Designed to be self-propelled or permanently towable by a light duty truck; and

D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

“Regional Road Maintenance Guidelines” means the National Marine Fisheries Service-published Regional Road Maintenance Endangered Species Act Program Guidelines.

“Repair” means to fix or restore to sound condition after damage. “Repair” does not include replacement of structures or systems.

“Replace” means to take or fill the place of a structure, fence, deck or paved surface with an equivalent or substitute structure, fence, deck or paved surface that serves the same purpose. “Replacement” may or may not involve an expansion.

“Restoration” means, for purposes of critical areas regulation, an action that reestablishes the structure and functions of a critical area or any associated buffer that has been altered.

“Roadway” means the maintained areas cleared and graded within a road right-of-way or railroad prism. For a road right-of-way, “roadway” includes all maintained and traveled areas, shoulders, pathways, sidewalks, ditches and cut and fill slopes. For a railroad prism, “roadway” includes the maintained railroad bed, shoulders, and cut and fill slopes. “Roadway” is equivalent to the “existing, maintained, improved road right-of-way or railroad prism” as defined in the Regional Road Maintenance Guidelines.

“Salmonid” means a member of the fish family Salmonidae, including but not limited to:

A. Chinook, coho, chum, sockeye and pink salmon;

B. Rainbow, steelhead and cutthroat salmon, which are also known as trout;

C. Brown trout;

D. Brook, bull trout, which is also known as char, and Dolly Varden char;

E. Kokanee; and

F. Pygmy whitefish.

“Salmonid migration barrier” means an in-stream blockage that consists of a natural gradient drop (no human influence) with an uninterrupted slope greater than 100 percent (45-degree angle and height in excess of 11 vertical feet with anadromous salmon-bearing waters or a height of three vertical feet within resident-trout-only-bearing waters). Culverts and weirs meet the definition, yet are subject to the director’s determination of whether the barrier must be removed or may remain, based on factors including impacts to existing systems and significant expense.

“Setback” means the required distance of separation from the edge of a critical area buffer to the face of a structure free of all structures.

“Shoreline” means those lands defined as shorelines of the state in the Shoreline Management Act of 1971, Chapter 90.58 RCW, as amended or updated.

“Shrub” means an evergreen or deciduous plant species that grows to a maximum of 24 to 30 inches in height.

“Side channel” means a channel that is secondary to and carries water to or from the main channel of a stream or the main body of a lake or estuary, including a back-watered channel or area and oxbow channel that is still connected to a stream by one or more aboveground channel connections or by inundation at the base flood.

“Site area” means the total horizontal area of a project site.

“Start of construction” includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a

manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"Steep slope hazard area" means an area on a slope of 40 percent inclination or more within a vertical elevation change of at least 20 feet. For the purpose of this definition, a slope is delineated by establishing its toe and top and is measured by averaging the inclination over at least 10 feet of vertical relief. Also for the purpose of this definition:

A. The "toe" of a slope means a distinct topographic break in slope that separates slopes inclined at less than 40 percent from slopes inclined at 40 percent or more. Where no distinct break exists, the "toe" of a slope is the lowermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet; and

B. The "top" of a slope is a distinct topographic break in slope that separates slopes inclined at less than 40 percent from slopes inclined at 40 percent or more. Where no distinct break exists, the "top" of a slope is the uppermost limit of the area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.

"Stream" means an aquatic area where surface water produces a channel, not including a wholly artificial channel, unless it is:

A. Used by salmonids; or

B. Used to convey a stream that occurred naturally before construction of the artificial channel.

"Structure" means, for floodplain management purposes, a walled and roofed building including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any reconstruction, rehabilitation, addition, or other improvement to a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed.

This term does not, however, include either:

A. Any project for improvement of a structure to correct previously identified existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are necessary to assure safe living conditions; or

B. Any alteration of a "historic structure;" provided, that the alteration will not preclude the structure's continued designation as a "historic structure."

"Surface water conveyance" means a drainage facility designed to collect, contain and provide for the flow of surface water from the highest point on a development site to receiving water or another discharge point, connecting any required flow control and water quality treatment facilities along the way. "Surface water conveyance" includes, but is not limited to, gutters, ditches, pipes, biofiltration swales and channels.

"Surface water discharge" means the flow of surface water into receiving water or another discharge point.

Swale. See definition of "Ditch" in this appendix.

"Swale, vegetated" means a ditch or flat terrain with sheet flow of water for periods of time that supports vegetative ground cover.

"Tree, hazard" means any tree with a structural defect, combination of defects or disease resulting in a structural defect that, under the normal range of environmental conditions at the site, will result in the loss of a major structural component of that tree in a manner that will:

A. Damage a residential structure or accessory structure, place of employment or public assembly or approved parking for a residential structure or accessory structure or place of employment or public assembly;

B. Damage an approved road or utility facility; or

C. Prevent emergency access in the case of medical hardship.

"Utility corridor" means a narrow strip of land containing underground or above-ground utilities and the area necessary to maintain those utilities. A "utility corridor" is contained within and is a portion of any utility right-of-way or dedicated easement.

"Utility facility" means a facility for the distribution or transmission of services, including:

A. Telephone exchanges, except for telecommunications facilities;

B. Water pipelines, pumping or treatment stations;

C. Electrical substations;

D. Water storage reservoirs or tanks;

E. Municipal ground water well-fields;

F. Regional surface water flow control and water quality facilities;

G. Natural gas pipelines, gate stations and limiting stations;

H. Propane, compressed natural gas and liquefied natural gas storage tanks serving multiple lots or uses from which fuel is distributed directly to individual users;

I. Wastewater pipelines, lift stations, pump stations, regulator stations or odor control facilities; and

J. Communication cables, electrical wires and associated structural supports.

“Variance” means a grant of relief by a community from the terms of a floodplain management regulation.

Wetland. As per RCW 36.70A.030(20), “wetland” or “wetlands” means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and 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, 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 created to mitigate conversion of wetlands.

A. Wetlands generally include:

1. Swamps;

2. Marshes;

3. Bogs;

4. Fens;

5. Wet meadows; and

6. Any other area meeting the wetland identification ~~three wetland~~and delineation criteria ~~(presence of wetland plants, wetland hydrology, and wetland or hydric soils) defined in the U.S. Army Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1) and the Washington State Wetlands Identification and Delineation Manual (WDOE Publication No. 96-94).~~per WAC 173-22-035.

a. Where the vegetation has been removed or substantially altered, a wetland is determined by the presence or evidence of hydric soil, by other documentation such as aerial photographs of the previous existence of wetland vegetation or by any other manner authorized in the wetland delineation manual required by RCW 36.70A.175; and

B. Except for artificial features intentionally made for the purpose of wetland impact mitigation, the term "wetland" does not include an artificial feature made from a nonwetland area, which may include, but is not limited to:

1. A surface water conveyance for drainage or irrigation;

2. A grass-lined swale;

3. A canal;

4. A flow control facility;

5. A wastewater treatment facility;

6. A farm pond;

7. A wet pond;

8. A landscape amenity; or

9. A wetland created after July 1, 1990, that was unintentionally made as a result of construction of a road, street or highway.

Wetland Biologist. A "wetland biologist or ecologist" is a "qualified professional" with a minimum of a Bachelor of Science degree from an accredited college or university in a program that includes coursework in wetland biology. Postgraduate training or certification and experience in the delineation of wetland habitats may be substituted for college or university coursework.

"Wetland category" is determined using a regulatory classification system defined in current state and local wetlands or critical areas management regulations. The current rating system used to define wetland category within the city of Enumclaw is noted in EMC 19.02.090(B).

"Wetland class" is determined through use of an ecological classification system found in "Classification of Wetlands and Deepwater Habitats of the United States" written by Lewis M. Cowardin, Virginia Carter, Francis C. Golet, and Edward T. LaRoe and published by the U.S. Department of the Interior, Fish and Wildlife Service (Publication No. FWS/OBS 79/31, December 1979).

"Wetland complex" means a grouping of two or more wetlands, not including grazed wet meadows, that meet the following criteria:

A. Each wetland included in the complex is within 500 feet of the delineated edge of at least one other wetland in the complex;

B. The complex includes at least:

1. One wetland classified Category I or II;

2. Three wetlands classified Category III; or

3. Four wetlands classified Category IV;

C. The area between each wetland and at least one other wetland in the complex is predominately vegetated with shrubs and trees; and

D. There are not any barriers to migration or dispersal of amphibian, reptile or mammal species that are commonly recognized to exclusively or partially use wetlands and wetland buffers during a critical lifecycle stage, such as breeding, rearing or feeding.

"Wetland creation" means, for purposes of wetland mitigation, the manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Activities to create a wetland typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils and support the growth of hydrophytic plant species. Wetland creation results in a gain in wetland acres.

"Wetland edge" means the line delineating the outer edge of a wetland, consistent with the wetland delineation manual required by RCW 36.70A.175.

"Wetland enhancement" means the manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific functions or to change the growth state or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Wetland enhancement activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods or some combination of these. Wetland enhancement results in a change in

some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Wetland enhancement can result in a change of wetland class or wetland category or both.

"Wetland, forested" means a wetland that is dominated by mature woody vegetation or a wetland vegetation class that is characterized by woody vegetation at least 20 feet tall.

~~"Wetland, isolated" means an area that is not connected to any waters of the state under normal circumstances and weather patterns, up to the 100-year storm event.~~

"Wetland rehabilitation" is very similar to wetland enhancement except that the activities generally do not result in a change of wetland class or wetland category, nor is there a net increase in wetland area. The term "wetland improvement" is generally synonymous with the wetland rehabilitation.

"Wetland restoration," for purposes of wetland mitigation, means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic wetland functions to a previously filled or substantially degraded wetland. Activities typically required to reestablish a wetland include removing fill material, importing hydric soil, grading wetland area, altering human-made drainage features, and installing appropriate native plants. Wetland restoration can result in a gain in both wetland acres and wetland function. Wetland rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres.

"Wetland vegetation class" means a wetland community classified under the Cowardin naming system or by its vegetation description including aquatic bed, emergent, forested and shrub-scrub. To constitute a separate wetland vegetation class, the vegetation must be at least partially rooted within the wetland and must occupy the uppermost stratum of a contiguous area or comprise at least 30 percent areal coverage of the entire wetland.

"Wet meadow, grazed or tilled" means an emergent wetland that has grasses, sedges, rushes or other herbaceous vegetation as its predominant vegetation and has been previously converted to agricultural activities.

"Wildlife" means birds, fish and animals that are not domesticated and are considered to be wild. ~~(Ord. 2679 § 1 (Exh. A), 2020; Ord. 2572 § 3 (Exh. B § 1), 2015; Ord. 2293 § 2 (Exh. A), 2005).~~

~~Appendix E Critical area identification form.~~

~~This form is to be used by a project applicant, property owner, or a property owner's agent contemplating any land use action regulated by Chapter 19.02 EMC. The completed form can be submitted as a request for site review in advance of planning or design of any contemplated land use action. This form can also be used for a preapplication review when submitted with preliminary plans or designs and a formal request for a preapplication conference. The purpose of this form is to:~~

(1) Provide the administrator with the minimum amount of information required to evaluate a project site or a proposed land use activity and provide the project applicant or land owner with appropriate information regarding regulatory requirement and review processes necessary to acquire land use permits from the city of Enumclaw.

(2) Provide an information checklist of the minimum information requirements.

Project Name:	**Checklist Date:**
Applicant Contact Information:	**Applicant's Agent Contact Information:**
Name:	Name:
Address:	Address:
Telephone Number:	Telephone Number:
Fax Number:	Fax Number:
E-mail Address:	E-mail Address:
Name and Contact Information of Person Completing This Form (if different from above):	
Name:	
Company Name:	
Address:	
Telephone Number:	Fax Number:
E-mail Address:	
Location and Description of Proposed Land Use Action:	
Property Address:	
Property Legal Description:	Tax Parcel Number:
Description of Proposed Land Use Action (include description of area within the property that will be impacted by the proposed land use action):	
Description of Existing Property Conditions (include site photos and map that provides directions to the site):	
Property Owner Contact Information (if different from Applicant or Applicant's Agent):	
Name:	
Address:	
Telephone Number:	Fax Number:
E-mail Address:	
Owner's Signature giving Applicant or Applicant's Agent Permission to Contact City re: proposed land use action:	

Date: _____

(Ord. 2293 § 2 (Exh. A), 2005).

Appendix F Critical area buffer risk and opportunity rating form.

Critical area buffer risks and opportunity rating form to be provided by the department of community development. (Ord. 2293 § 2 (Exh. A), 2005).

Appendix G WAC 222-16-030 (Rev. 2004).

A. WAC 222-16-030 Water typing system. Until the fish habitat water type maps described below are adopted by the board, the interim water typing system established in WAC 222-16-031 will continue to be used. The department, in cooperation with the Departments of Fish and Wildlife, and Ecology, and in consultation with affected Indian tribes, will classify streams, lakes and ponds. The department will prepare water type maps showing the location of Type S, F, and N (Np and Ns) waters within the forested areas of the state. The maps will be based on a multiparameter, field-verified geographic information system (GIS) logistic regression model. The multiparameter model will be designed to identify fish habitat by using geomorphic parameters such as basin size, gradient, elevation and other indicators. The modeling process shall be designed to achieve a level of statistical accuracy of 95 percent in separating fish habitat streams and nonfish habitat streams. Furthermore, the demarcation of fish and nonfish habitat waters shall be equally likely to overestimate and underestimate the presence of fish habitat. These maps shall be referred to as "fish habitat water typing maps" and shall, when completed, be available for public inspection at region offices of the department.

B. Fish habitat water type maps will be updated every five years where necessary to better reflect observed, in-field conditions. Except for these periodic revisions of the maps, on-the-ground observations of fish or habitat characteristics will generally not be used to adjust mapped water types. However, if an on-site interdisciplinary team using nonlethal methods identifies fish, or finds that habitat is not accessible due to naturally occurring conditions and no fish reside above the blockage, then the water type will be immediately changed to reflect the findings of the interdisciplinary team. The finding will be documented on a water type update form provided by the department and the fish habitat water type map will be updated as soon as practicable. If a dispute arises concerning a water type, the department shall make available informal conferences, as established in WAC 222-46-020, which shall include the Departments of Fish and Wildlife, and Ecology, and affected Indian tribes and those contesting the adopted water types.

C. The waters will be classified using the following criteria:

Commented [CP38]: I have never, ever been able to find this form. Anywhere.

Commented [CP39R38]: I think we should talk about what to do about this section. It's a bit useless.

Commented [SE40]: Delete and make sure that the defn aren't needed

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 acre or greater at seasonal low water and which in any case contain fish habitat or are described by one of the following four categories:

a. Waters, which are diverted for domestic use by more than 10 residential or camping units or by a public accommodation facility licensed to serve more than 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 1,500 feet or until the drainage area is reduced by 50 percent, whichever is less;

b. 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 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:

i. The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and

ii. Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery;

c. Waters which are within a federal, state, local, or private campground having more than 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 100 feet of a camping unit, trail or other park improvement;

d. 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:

i. The site must be connected to a fish habitat stream and accessible during some period of the year; and

ii. 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 during 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:

a. At least 13 acres in the Western Washington coastal zone (which corresponds to the Sitka spruce zone defined in Franklin and Dyrness, 1973);

b. At least 52 acres in other locations in Western Washington;

c. At least 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.

5. For purposes of this section:

a. "Residential unit" means a home, apartment, residential condominium unit or mobile home serving as the principal place of residence.

b. "Camping unit" means an area intended and used for:

i. Overnight camping or picnicking by the public containing at least a fireplace, picnic table and access to water and sanitary facilities; or

ii. A permanent home or condominium unit or mobile home not qualifying as a "residential unit" because of part-time occupancy.

c. "Public accommodation facility" means a business establishment open to and licensed to serve the public, such as a restaurant, tavern, motel or hotel.

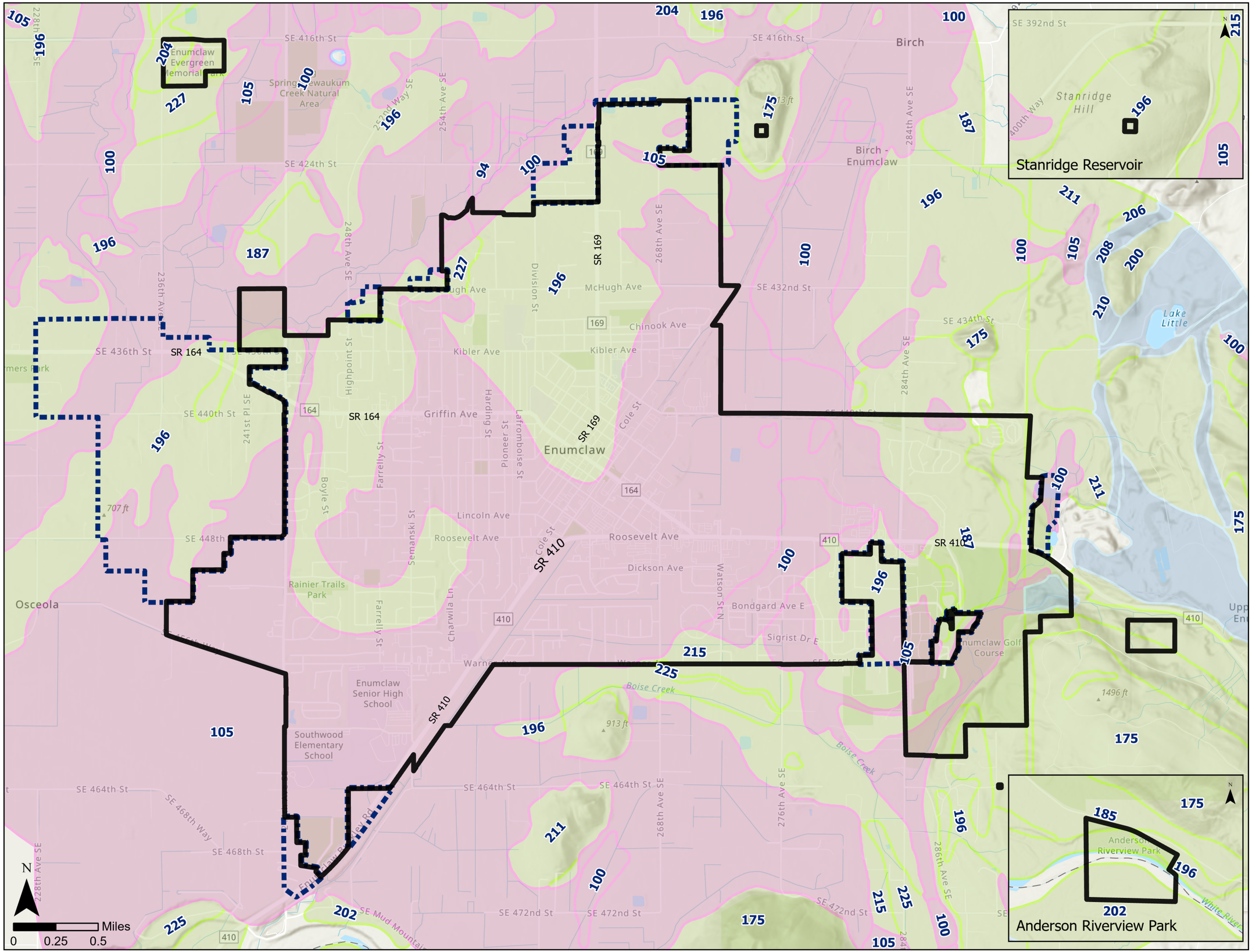
d. "Natural waters" only excludes water conveyance systems which are artificially constructed and actively maintained for irrigation.

e. “Seasonal low flow” and “seasonal low water” mean the conditions of the seven-day, two-year low water situation, as measured or estimated by accepted hydrologic techniques recognized by the department.

f. “Channel width and gradient” means a measurement over a representative section of at least 500 linear feet with at least 10 evenly spaced measurement points along the normal stream channel but excluding unusually wide areas of negligible gradient such as marshy or swampy areas, beaver ponds and impoundments. Channel gradient may be determined utilizing stream profiles plotted from United States Geological Survey topographic maps (see board manual, section 23).

g. “Intermittent streams” means those segments of streams that normally go dry.

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



CITY OF ENUMCLAW

DEPARTMENT OF COMMUNITY DEVELOPMENT
1309 MYRTLE AVE, ENUMCLAW, WA 98022
PH: (360) 825-3593

CITY OF ENUMCLAW SPTH MAP

DRAFT

200-Year Site Potential Tree Height (SPTH)

- Douglas-fir
- Red Alder
- Western Hemlock
- Urban Growth Area (UGA)
- City Limits

Data Sources: City of Enumclaw, Natural Resources Conservation Service, Washington Department of Fish & Wildlife (WDFW)

SPTH Note: This dataset when combined with the NRCS 200 Year Table shows the Site Potential Tree Height (SPTH) of forested areas in Washington State. Site potential tree height (SPTH) is a method for determining the height that trees can grow within the forested landscapes. SPTH is based on site index, which is a common system for classifying productivity of forested land for management purposes. Site index is the total height to which dominant trees of a given species will grow on a given site at some index age. In Western Washington, the index age is generally given as 50 years. The 200 year site index is then the height of the dominant trees at 200 years in age.

Disclaimer: This map is a visual representation derived from the Geographic Information System of the City of Enumclaw and does not represent survey level accuracy. This map is based on the best information available as of the date shown on this map. The City of Enumclaw makes every effort to provide correct information, but makes no representation as to the completeness or accuracy of this map. The process of data collection is continuous and the information displayed should not be considered complete. This map is not intended for regulatory purposes, as the scale, accuracy, and completeness are not sufficient to determine regulatory implications at a site-specific level. This map represents the best available data at the time of publication.

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Date: November 2024

FINDINGS AND CONCLUSIONS:

Critical Areas Ordinance Amendments

Title 15 outlines the findings required to approve comprehensive plan amendments/code amendments. EMC section 15.32.038 outlines three general requirements and six consistency statements to be used when evaluating the merits of the proposals.

1. The amendment will not result in development that will adversely affect the public health, safety and general welfare.

Staff response: Staff and the Planning Commission find that the proposed amendments will not adversely affect the public health, safety and general welfare. The revised edits to the critical areas regulations will provide for better protection of wetlands, streams, aquifer recharge areas, etc. While the increase in buffer widths is substantial, this is necessary to ensure that pollutants are removed prior to entering the critical areas.

2. The amendment is based upon new information that was not available at the time of adoption of the comprehensive plan, or that circumstances have changed since the adoption of the plan that warrant an amendment to the plan.

Staff response: Staff and the Planning Commission find that circumstances have changed as the city will be adopting a revised 2024 Comprehensive Plan. The new plan includes goals and policies for protection of critical areas as well as required changes in the state law prompting the amendments to the municipal code. Staff and the commission considered the likely affects of climate change specific to landslides and erosion hazards due to declining snowpack and increased frequency and intensity of heavy rains. The city's conducted a climate vulnerability and risk assessment. That assessment indicates that the increased risk for landslides are generally located adjacent to the Green and White rivers at the north and south sides of the city, outside of city limits and therefore no additional standards within the development regulations are necessary. Most of the city's assets are also located outside of high-hazard locations.

3. The amendment[s] is consistent with other goals and policies of the comprehensive plan, and that the amendment will maintain concurrency between the land use, transportation, and capital facilities element of the plan.

Staff response: Staff and the Planning Commission find that the proposal is consistent with the goals and policies within the 2024 Comprehensive Plan:

> **Goal NE-3: Protect people, property, and environment in areas of natural hazards.**
>
> **Goal NE-5: In accordance with the GMA, designate and protect critical areas including wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas to protect community health, safety and general welfare.**

The updated code provisions will provide greater protection for critical areas within the city.

B. The administrator, planning commission and council shall use the following detailed criteria in evaluating the merit of a proposal.

1. The amendment[s] should address an existing, significant need for a public necessity or convenience.

Staff response: Staff and the Planning Commission find that the proposed amendments would address the requirement by the state of Washington to amend our critical area's ordinance in compliance with state law and our revised Comprehensive Plan.

2. The amendment[s] should be in the public's best interest.

Staff response: Staff and the Planning Commission find that the amendments are in the public's best interest to comply with the Growth Management Act as well as provide greater protections for critical areas within the city. As part of the CAO ordinance, the city has determined that the majority of the city has a SPTH for Red Alder (approximately 60%). This would yield a buffer requirement of 100 feet. Adopting this standard would reduce pollutants by 95% as outlined in the city's Best Available Science Memo, September 23, 2024 See attached BAS document and SPTH map.

The city maintains that it is in the public's best interest to maintain buffers within the CAO as opposed to Riparian Management Zone's (RMZ's). This is primarily for the development community who are familiar with the term buffers as opposed to RMZ's. The buffer comply with the guidance.

3. The amendment should be compatible with all adjacent comprehensive plan and zoning map designations.

Staff response: Staff and the Planning Commission find that the proposed amendments are compatible with all adjacent comprehensive plan and zoning map designations.

4. The amendment should be compatible with all elements of the comprehensive plan and zoning code.

Staff response: Staff and the Planning Commission find that the proposed amendments is compatible with the city's comprehensive plan and zoning code.

5. The amendment[s] should be compatible with and should not adversely impact related ordinances, regulations and development standards.

Staff response: Staff and the Planning Commission find that the proposed amendment will not adversely impact any existing ordinances, regulations or conflict with existing development standards.

6. The amendment should not adversely impact the health, safety and general welfare of the public; the city design; development interests; neighborhoods; environmentally sensitive areas; and historic areas.

Staff response: Staff and the Planning Commission find that the proposed amendments should not adversely impact the health, safety and general welfare of the public; the city design; development interests; neighborhoods; environmentally sensitive or historic areas. The revised CAO will provide better protection for critical areas within the city.