

## ORDINANCE NO. 2679

**AN ORDINANCE OF THE CITY OF ENUMCLAW, KING COUNTY, WASHINGTON AMENDING ITS FLOODPLAIN MANAGEMENT ORDINANCE IN ENUMCLAW MUNICIPAL CODE (EMC) 19.02, AND MINOR UPDATES TO RELATED CONTENT IN THE CITY'S CRITICAL AREAS DEFINITIONS IN EMC 19.02. APPENDIX D. THESE EDITS INCLUDE THE ADOPTION OF THE NEW KING COUNTY FLOOD INSURANCE RATE MAPS, AND CONFORMANCE TO THE NEW NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD DAMAGE. THIS UPDATE IS IN COMPLIANCE WITH ENUMCLAW'S PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM, APPROVAL FROM FEMA IS REQUIRED.**

**Whereas**, the City of Enumclaw has adopted a Comprehensive Plan pursuant to the Growth Management Act (GMA), RCW Chapter 36.70A which covers the incorporated city limits as well as adjacent unincorporated lands within the Urban Growth Area; and

**Whereas**, the Comprehensive Plan includes a Natural Environment chapter as an optional plan element pursuant to RCW 36.70A.080 for the purpose of identifying policies for the protection and preservation of environmentally sensitive areas and wildlife habitats; and

**Whereas**, Enumclaw participates in the National Flood Insurance Program (NFIP), a federal program designed to provide flood insurance for those properties located within identified flood hazards; and

**Whereas**, participation in the National Flood Insurance Program requires the adoption and enforcement of a flood hazard reduction Ordinance meeting the minimum requirements of the federal NFIP program; and

**Whereas**, Chapter 86.16 RCW, Washington Floodplain Management Law has instituted additional requirements above and beyond the National Flood Insurance Program and requires that local jurisdiction adopt regulations consistent with both the Washington Floodplain Management Law and the National Flood Insurance Program; and

**Whereas**, the National Flood Insurance Program requires that local participants in the National Flood Insurance Program adopt and implement the more restrictive State requirements; and

**Whereas**, Chapter 19.02 Critical Areas Regulations, Ordinance No. 2544, was last updated on April 14, 2014 into the Enumclaw Municipal Code as the regulations governing environmentally critical areas within the City of Enumclaw promotes the health, safety and welfare of the general public by establishing minimum standards and review criteria for actions within the floodplain; and

**Whereas**, Chapter 19.02 contains an outdated reference to the applicable Flood Insurance Study and maps and does not comply with NFIP requirements; and

**Whereas**, the proposed amendment to Chapter 19.02 will incorporate the current effective dates of the Flood Insurance Study (FIS) for King County Washington, and Incorporated Areas (dated August 19, 2020) and the Flood Insurance Rate Map (FIRM) (dated August 19, 2020) and any revision thereto; and

**Whereas**, due to the Open Public Meetings Act restrictions due to Governor Proclamations based on controlling the Corona Virus Pandemic hearings could not be scheduled for public participation, and

**Whereas**, a SEPA Determination of Non-significance for the proposed amendments will be issued on June 24, 2020 with a 15-day comment period; and

**Whereas**, the City Council on July 13, 2020 adopted Ordinance No. 2678, which adopted these regulations to maintain the city's status within the NFIP, and

**Whereas**, the City of Enumclaw Planning Commission reviewed the proposed regulations on May 25, 2020, and

**Whereas**, the City of Enumclaw Planning Commission held a public hearing on July 23, 2020 and made a recommendation to approve the regulations, and

**Whereas**, the City Council held a public hearing on August 10, 2020, and

**Now, therefore, the City Council of the City of Enumclaw, King County, Washington, do ordain as follows:**

**Section 1: Findings and Adoption.** The recitals listed above are hereby adopted as findings of fact. The City Council hereby amends EMC 19.02. as shown in Exhibit "A"

**Section 2: Severability.** If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance or its application to any person or situation should be held to be invalid or unconstitutional for any reason by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of the remaining portions of this ordinance or its application to any other person or situation.

**Section 3: Effective Date.** This ordinance shall take effect and be in force five (5) days from and after its passage, approval and publication as required by law.

\_\_\_\_\_  
Mayor Jan Molinaro  
Introduced: \_\_\_\_\_  
Passed: \_\_\_\_\_  
Approved: \_\_\_\_\_  
Published: \_\_\_\_\_

Attested:

\_\_\_\_\_  
Maureen Burwell  
City Clerk

Approved as to Form:

\_\_\_\_\_  
Michael J. Reynolds  
City Attorney

(underlined text is added, struck-out ~~text~~ is deleted):

## 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 waterbody.

“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 1% 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 used or constructed for the purpose of conveying water.

“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.

“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:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from:
  - a. The overflow of inland or tidal waters.
  - b. The unusual and rapid accumulation of runoff of surface waters from any source.
  - c. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) 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.
2. 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 paragraph (1)(a) 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 hazards 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.

“Flood proofing” 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. Flood proofed structures are those 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 ~~one foot~~ 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](#).

“Highest adjacent grade” means

“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.

“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:

1. 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;
2. 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;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
  - a. By an approved state program as determined by the Secretary of the Interior, or
  - b. 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.

“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:

- 1) Built on a single chassis;
- 2) 400 square feet or less when measured at the largest horizontal projection;
- 3) Designed to be self-propelled or permanently towable by a light duty truck; and
- 4) 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 ~~repair~~, 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.

either:

- ~~A. Before the improvement is started; or~~
- ~~B. If the structure has been damaged and is being restored, before the damage occurred.~~

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.” ~~structure listed in the National or State Register of Historic Places.~~

“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 three wetland 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).

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.

### **Chapter 19.02.060 Frequently flooded area**

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 hazards 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 ~~April 19, 2005~~August 19, 2020, and any revisions thereto, with ~~an~~ accompanying flood insurance rate map (FIRM), dated ~~May 16, 1995~~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 Section 19.02.060(C)(1) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under Section 19.02.060(C)(1).

C. Administrator – Duties.

1. When base flood elevation data has not been provided in accordance with ~~the area identified by the Federal Insurance Administration scientific and engineering report referred to above,~~ section 19.02.060(B)(1)(a), 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 as 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 hazards (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 Section 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 ordinance 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 ordinance 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, assure 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 ordinance 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 ordinance and other applicable regulations. Violations of the provisions of this ordinance 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 ordinance 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 ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance 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 ordinance, all provisions shall be:

1. Considered as minimum requirements; and

2. Liberally construed in favor of 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 ordinance 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 ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from

flooding or flood damages. This ordinance 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 ordinance or any administrative decision lawfully made hereunder.

## **New Section**

### 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 Section 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 flood proofed;
- 3) Where a structure is to be flood proofed, certified by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet the flood proofing criteria in Section 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.

### **Section 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 section 19.02.060(B)(1)(a), Basis for Establishing the Areas of Special Flood Hazard, or section 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 ~~to 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 1 or 2, below: either have the highest floor, including basement, elevated to or above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

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:

i. 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.

ii. The bottom of all openings shall be no higher than one foot above grade.

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

iv. 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 1 are not met, then new construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet all of the following requirements:

A1. 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;

B2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of the buoyancy;

C3. 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 ~~to~~ 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 ~~are allowed to be stored~~ placed on sites are required either: within special flood hazard areas if they are fully licensed and ready for highway use, on their wheels, not connected to utilities and meet other zoning requirements.

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 meet the requirements of Section 19.02.190(A)(8), above.

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 ~~or architect~~ 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 section 15.28.310(A);

6. The appurtenant structure must be designed to allow for the automatic entry and exit of floodwaters in accordance with section 15.28.260(B);

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 section 15.28.260.

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 ordinance 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 ordinance 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 section 15.28.260(B); and

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