

## ORDINANCE NO. 12-2020

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COVINGTON, KING COUNTY, AMENDING CHAPTER 16.15 CMC FLOOD DAMAGE PREVENTION; ADOPTING FINDINGS OF FACT; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, Chapter 35A.63 of the Revised Code of Washington (“RCW”) empowers the City of Covington (the “City”) to enact planning and environmental regulations; and

WHEREAS, the Washington State Constitution at article 11, section 11, grants cities the police power authority to protect the public health, safety, and welfare. Pursuant to that authority, a city may regulate the use of property. Cities may regulate property for purposes such as abating nuisances, enforcing building and health codes, zoning and planning, and environmental protection; and

WHEREAS, periodic code reviews and updates allow an opportunity to review code effectiveness, and ensure the codes remain relevant, are consistent with best available science, and align with the community’s vision; and

WHEREAS, the Planning Commission work plan for 2020 does not include an evaluation of Chapter 16.15 CMC, however, the City is mandated by the Federal Emergency Management Agency (“FEMA”) to adopt new floodplain maps and update the City’s code before August 19, 2020; and

WHEREAS, the City’s floodplain management regulations in Chapter 16.15 CMC are the flood hazard data and regulations provided to the City by FEMA; and

WHEREAS, FEMA identifies flood hazards nationwide and publishes and periodically updates flood hazard data in support of the National Flood Insurance Program (“NFIP”); and

WHEREAS, the NFIP is a federal flood insurance program and, if a City wants to participate in the NFIP the CMC must be consistent federal and state regulations; and

WHEREAS, the CMC is not currently consistent with those regulations; and

WHEREAS, Chapter 16.15 CMC was audited by FEMA and the State of Washington for compliance with the requirements of the NFIP; and

WHEREAS, in response to the FEMA audit, City staff drafted an amendment to Chapter 16.15 CMC to meet federal and state minimum floodplain management standards (Title 44 Code of Federal Regulations and Title 86 RCW); and

WHEREAS, City staff and FEMA completed an extensive evaluation of Chapter 16.45 CMC to ensure the City is complying with the requirements of the NFIP; and

WHEREAS, on April 30, 2020 the proposed amendments were approved by FEMA and the State for compliance with the NFIP; and

WHEREAS, flood hazard data is provided to communities in the form of a Flood Insurance Rate Map ("FIRM") and Flood Insurance Study ("FIS") report, which are typically prepared in a countywide format; and

WHEREAS, the City is adopting new FIRMs and a new FIS as part of this amendment; and

WHEREAS, the updated FIS and new FIRMs, effective August 19, 2020, will replace the current effective products; and

WHEREAS, flood insurance policies throughout King County are required by federal mandate to be amended based on these updated products; and

WHEREAS, the identification of flood hazards serves many important purposes and creates an awareness of the hazard, especially for those who live and work in floodprone areas; and

WHEREAS, the FIRM and FIS provide the City with the information needed for land use planning and to reduce flood risk to floodplain development and implement other health and safety requirements through codes and regulations; and

WHEREAS, the City can also use the information provided in the FIRMs and FIS for emergency management; and

WHEREAS, each time FEMA provides the City with additional flood hazard data, the City must adopt new floodplain management regulations or amend existing regulations to incorporate the new data and meet any additional requirements that result from any changes in the data, such as the designation of a regulatory floodway for the first time; and

WHEREAS, the City's floodplain management regulations must also meet any additional State requirements and be adopted through a process that complies with any procedural requirements established by the state for the adoption of ordinances or regulations; and

WHEREAS, the City must adopt the new regulations provided in the proposed amendments to avoid immediate suspension from the NFIP after August 19, 2020; and

WHEREAS, the planning commission is responsible for the review of amendments to the City's flood damage prevention code and making modification recommendations; and

WHEREAS, the planning commission is required to hold a noticed public hearing and make a recommendation to the city council as to whether the proposed amendments meet the decision criteria set forth in CMC 14.27.040; and

WHEREAS, on June 9, 2020, City staff transmitted a copy of the proposed code amendments to the Washington State Department of Commerce for expedited review and comment, pursuant to RCW 36.70A.106; and

WHEREAS, expedited review of the proposed code amendments was granted on July 2, 2020; and

WHEREAS, a legal notice of public hearing for the proposed amendments was published June 11, 2020 in the Seattle Times as well as posted on the City's website and at city hall; and

WHEREAS, pursuant to the State Environmental Policy Act ("SEPA") and Chapter 191-11 Washington Administrative Code ("WAC"), a Determination of Nonsignificance ("DNS") for non-project action was issued and noticed on June 11, 2020 for the proposed amendments; and

WHEREAS, pursuant to WAC 197-11-340(2), the City provided a 14-day comment period for the DNS issued on the proposed amendments with an appeal and comment period ending June 26, 2020; and

WHEREAS, the planning commission met on June 4, 2020 to discuss the current version of Chapter 16.15 CMC, reviewed the draft amendment, and directed staff to schedule the public hearing for July 16, 2020; and

WHEREAS, on July 16, 2020 the planning commission held a properly noticed public hearing on the proposed amendments; and

WHEREAS, the City received no public comments; and

WHEREAS, after the public hearing and review, the planning commission recommended that the city council adopt the amendments to Chapter 16.15 CMC as proposed; and

WHEREAS, the proposed amendments meet the decisional criteria set forth in CMC 14.27.040; and

WHEREAS, the city council, upon review of the facts and findings and recommendations of the planning commission, and after review and information provided by City staff, find that all applicable and substantive requirements of the law have been met, that adoption of this ordinance promotes the public health, safety, and general welfare of the community and the adoption of this ordinance serves the public interest.

NOW, THEREFORE, The City of Council of the City of Covington, Washington, do ordain as follows:

Section 1. Findings of Fact. The recitals set forth above are hereby adopted as the City Council's findings of fact.

Section 2. Amendments to Chapter 16.15 CMC. Chapter 16.15 CMC, Flood Damage Prevention, is hereby amended as set forth in the attached Exhibit A, which is incorporated herein by this reference.

Section 3. Severability. If any section, paragraph, sentence, clause, or phrase of this ordinance, or its application to any person or situation, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be pre-empted by state or federal law or regulation, such decision or preemption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or situation. The City Council of the City of Covington hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clauses, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, or portions be declared invalid or unconstitutional.

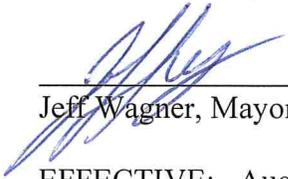
Section 4. Corrections. Upon the approval of the City Attorney, the City Clerk and the codifiers of this ordinance are authorized to make any necessary corrections to this ordinance including, but not limited to, the correction of scrivener's/clerical errors, references, ordinance numbering, section/subsection numbers, and any reference thereto.

Section 5. Ratification. Any act consistent with the authority and prior to the effective date of this ordinance is hereby ratified and affirmed.

Section 6. Effective Date. This ordinance shall be in full effect five (5) days after passage and publication, as provided by law. A summary of this ordinance may be published in lieu of publishing the ordinance in its entirety.

Passed by the City Council of the City of Covington this 11<sup>th</sup> day of August 2020.

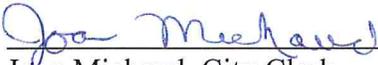
Signed in authentication of its passage this 12<sup>th</sup> day of August, 2020.

  
\_\_\_\_\_  
Jeff Wagner, Mayor

EFFECTIVE: August 19, 2020

PUBLISHED: August 14, 2020

AUTHENTICATED:

  
\_\_\_\_\_  
Joan Michaud, City Clerk

APPROVED AS TO FORM:

/s/ Mark Orthmann, as authorized by email on August 11, 2020

Mark Orthmann, City Attorney

Chapter 16.15

FLOOD DAMAGE PREVENTION

Sections:

Article I. General Provisions

16.15.005 Statutory Authorization.

- 16.15.010 Purpose.
- 16.15.020 Methods for reducing flood loss.
- 16.15.030 Definitions.
- 16.15.040 Lands to which this chapter applies.
- 16.15.045 Flood hazard area components.
- 16.15.050 Adoption of report and flood insurance rate map.
- 16.15.055 Determining other protected areas.
- 16.15.057 Stormwater management.
- 16.15.060 Penalty for noncompliance.
- 16.15.070 Abrogation and greater restrictions.
- 16.15.080 Interpretation.
- 16.15.090 Warning and disclaimer.

Article II. Administration

- 16.15.100 Development permit required.
- 16.15.110 Application for development permit.
- 16.15.120 ~~Local administrator~~ Floodplain Administrator.
- 16.15.130 ~~Local administrator~~ Floodplain Administrator – Duties.
- 16.15.140 ~~Local administrator~~ Floodplain Administrator – Use of other base flood data.
- 16.15.150 ~~Local administrator~~ Floodplain Administrator – Information to be obtained.
- 16.15.160 ~~Local administrator~~ Floodplain Administrator – Alteration of watercourses.
- 16.15.170 ~~Local administrator~~ Floodplain Administrator – Interpretation of FIRM boundaries.
- 16.15.180 Variances and appeals.
- 16.15.190 Variances – Permissible conditions.
- 16.15.195 Exemptions.
- 16.15.197 Partial exemptions.

Article III. Flood Hazard Reduction – General Standards

- 16.15.200 Flood hazard reduction – Anchoring.
- 16.15.210 Flood hazard reduction – Construction materials and methods.
- 16.15.220 Flood hazard reduction – Utilities.
- 16.15.230 Flood hazard reduction – Subdivision proposals.
- 16.15.240 Flood hazard reduction – Review of building permits.
- 16.15.245 Flood hazard areas certification by surveyor.

Article IV. Flood Hazard Reduction – Specific Standards

- 16.15.250 Flood hazard reduction – Residential construction.

- 16.15.260 Flood hazard reduction – Nonresidential construction.
- 16.15.270 Flood hazard reduction – Manufactured homes.
- 16.15.280 Flood hazard reduction – Recreational vehicles.
- 16.15.285 AE and A1-30 Zones with base flood elevations but no floodways.
- 16.15.310 Critical facility.

Article V. Floodplain Protection – Specific Standards

- 16.15.315 Allowable development activities in all flood hazard area zones.
- 16.15.320 Floodplain and floodway fringe development standards and alterations.
- 16.15.330 Riparian buffer zone development standards and alterations.
- 16.15.340 Zero-rise and FEMA floodway development standards and alterations.
- 16.15.350 FEMA floodway development standards and alterations.
- 16.15.360 Channel migration zones – Development standards and alterations.

Article I. General Provisions

**16.15.005 Statutory Authorization**

The Legislature of the State of Washington has delegated the responsibility to local communities to adopt floodplain management regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Covington City Council, does ordain as follows.

**16.15.010 Purpose.**

(1) The flood hazard areas of the City are subject to periodic inundation resulting in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(2) These flood losses ~~are~~ may be caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and, when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss. It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (a) To protect human life and health;
- (b) To minimize the expenditure of public money and costly flood control projects;
- (c) To minimize the need for rescue and relief efforts associated with flooding and typically undertaken at the expense of the general public;
- (d) To minimize prolonged business interruptions;
- (e) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines and streets and bridges located in areas of special flood hazard;
- (f) To help maintain a stable tax base by providing for the sound use and development of special flood hazard areas so as to minimize future flood blight areas;

(g) To ensure that potential buyers are notified that property is in an area of special flood hazard;

(h) To ensure that those who occupy special flood hazard areas assume responsibility for their actions;

(i) To qualify the City of Covington for participation and to maintain eligibility for flood insurance and disaster relief through ~~in~~ the National Flood Insurance Program (NFIP);

(j) To maintain the quality of surface waters and protect the natural channel and floodplain processes and functions that provide habitat for threatened and endangered species; and

(k) To minimize loss of hydraulic, geomorphic, and ecological functions of natural watercourses and floodplains.

#### **16.15.020 Methods for reducing flood loss.**

In order to accomplish its purposes, this chapter sets forth methods and provisions for:

(1) Restricting or prohibiting development ~~uses~~ which ~~are~~ is dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion, flood heights or velocities;

(2) Requiring that development ~~uses~~ vulnerable to floods, ~~including facilities which serve such uses,~~ be protected against flood damage at the time of initial construction;

(3) Controlling the alteration of natural floodplains, stream channels and natural protective barriers which help accommodate or channel flood water;

(4) Controlling filling, grading, dredging and other development which may increase flood damage; and

(5) Preventing or regulating the construction of flood barriers which unnaturally divert flood water or increase flood hazards in other areas.

#### **16.15.030 Definitions.**

Certain words and phrases used in this chapter, unless otherwise clearly indicated by their context, mean as follows. Unless otherwise defined in this chapter the definitions provided in Chapter 18.20 CMC shall be applicable. If there is a conflict, the definitions in this section shall govern.

(1) "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.

~~(12)~~ "Appeal" means a request for review of the interpretation of any provision of this chapter or a request for a variance therefrom.

~~(23)~~ "Area of special flood hazard" means the land in the floodplain within the City which is subject to a one percent or greater chance of flooding in any given year. This area's designation on flood insurance rate maps always includes the letter A or V.

~~(34)~~ "Base flood" means flood having a one percent chance of being equaled or exceeded in any given year (also referred to as the "100-year flood"). The base flood is noted as the special flood hazard area designated on flood insurance rate maps as Zone "A" or "V" including ~~AE, AO, AH, A1-00, and VE.~~

(5) "Base flood elevation" means the elevation to which floodwater is anticipated to rise during the base flood.

(6) "Basement" means any area of the building having its floor sub-grade (below ground level) on all sides.

(47) "Channel migration zone" or "CMZ" 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. "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. The regulated channel migration zone includes the channel migration zone boundary and extends 50 feet landward in each direction from the stream.

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

(69) "Development" or "development activity" means any manmade change to improved or unimproved real property, including but not limited to buildings or other structures or mining, dredging, filling, grading, paving, excavation, drilling operations or storage of equipment or materials, or removal of more than five percent of the natural vegetation located within the area of special flood hazard. This includes construction, repair, or replacement of culverts, pipes, bridges, levees, bank stabilization, docks, revetments, walls, bulkheads, driveways, or roads.

(10) "Director" means the Director of City of Covington Department of Community Development, or his or her designee. The term Director shall be interchangeable with the term Floodplain Administrator.

(711) "Elevated building," for insurance purposes, means a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings or columns.

(812) "Existing manufactured home park or subdivision" means a manufactured home park subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the adopted floodplain management regulations.

(913) "Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

(1410) "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (a) the overflow of inland or tidal waters; ~~and/or~~ (b) the unusual and rapid accumulation of surface water runoff from any source; (c) Mudslides (i.e., mudflows) that are

proximately caused by flooding as defined in (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.

It also means 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 (a) of this definition.

(15) "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.

~~(16)~~(11) "Flood insurance study" means the current effective official report provided by FEMA that includes flood profiles, the flood insurance rate maps, and the water surface elevation of the base flood see Flood Elevation Study.

(17) "Flood Insurance Rate Map (FIRM)" means the official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas 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).

(18) "Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source. See "Flood" or "flooding."

(19) "Floodplain administrator" means the Director or community official designated by this title to administer and enforce the floodplain management regulations.

(20) "Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works, and floodplain management regulations.

(21) "Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance, and erosion control ordinance) and other application of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

(22) "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.

~~(23)~~(23) "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."

(24) "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 cargo or passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

(25) "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

(26) "Historic structure" means any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of 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 Interior; or

(d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(i) By an approved state program as determined by the Secretary of the Interior or

(ii) Directly by the Secretary of the Interior in states without approved programs.

(2813) "Lowest floor" means the lowest floor of the lowest enclosed area, including any basement. An unfinished or flood resistant enclosure which is usable solely for parking of vehicles, building access or storage, located 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 CMC 16.15.250(2).

(29) "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

(1430) "Manufactured home park or subdivision" means a parcel or contiguous parcels of land divided into two or more manufactured home lots for rent or sale.

(31) "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.

(1532) "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 purposes, "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.~~ means any structure for which the start of construction commenced on or after the effective date of the ordinance codified in this chapter.

(1633) "New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads, is completed on or after the effective date of adopted floodplain management regulations.

(1734) "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.

(1835) "Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement is within 180 days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of a slab or footings, the installation of piles, the construction of columns or any other 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 or the installation of streets and/or walkways or excavation for a basement, footings, piers, or foundations or the erection of temporary forms or 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. With respect to 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.

(1936) "Structure" means a walled and roofed building permanently constructed in or on the ground, ~~or over water, excluding fences six feet or less, and including a gas or liquid storage tank that is principally above ground~~ as well as a manufactured home.

(2037) "Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its predamaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

(3821) "Substantial improvement" means any ~~repair, reconstruction,~~ rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure: ~~(a) before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. —or repair is— started; or (b) if the structure has been damaged and is being restored, before the damage occurred. For purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.—~~

The term does not, however, include: (a) any project to improve a structure to correct precited existing violations of State or local health, sanitary, or safety code specifications which have been identified by the local enforcement official and which are the minimum 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.” listed on the National Register of Historic Places or a State Inventory of Historic Places.

~~(3922)~~ “Variance” means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

~~(40)~~ “Violation” means the failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

~~(4123)~~ “Water dependent” means a structure for commerce or industry which is dependent on the water by reason of the intrinsic nature of its operations and cannot exist in any other location.

~~(42)~~ “Water surface elevation” means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, or other datum, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

~~(4324)~~ “Water typing” means a system for classifying water bodies according to their size and fish habitat characteristics. The Washington Department of Natural Resources’ Forest Practices Water Typing classification system is hereby adopted by reference. The system defines four water types:

- (a) Type “S” = Shoreline: Streams that are designated “shorelines of the State,” including marine shorelines.
- (b) Type “F” = Fish: Streams that are known to be used by fish or meet the physical criteria to be potentially used by fish.
- (c) Type “Np” = Nonfish Perennial streams.
- (d) Type “Ns” = Nonfish Seasonal streams.

**16.15.040 Lands to which this chapter applies.**

This chapter shall apply to all areas of special flood hazard located within the City limits.

**16.15.045 Flood hazard area components.**

(1) A flood hazard area consists of the following components:

- (a) Floodplain;
- (b) Floodway fringe;
- (c) Riparian buffer zone (RBZ);
- (d) Zero-rise floodway;
- (e) FEMA floodway; and

(f) Channel migration zone (CMZ).

These areas at times overlap. For the purpose of this chapter, the most restrictive development requirements shall apply. In addition, exceptions, if any, must apply to all the overlapping zones to be allowable and applicable.

**16.15.050 Adoption of report and flood insurance rate map.**

(1) 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 ~~March 30, 1998~~ August 19, 2020, as amended, with the accompanying flood insurance rate maps (FIRM), as amended, are hereby adopted by reference as though fully set forth herein. The flood insurance study is on file at Covington City Hall. The best available information for flood hazard area identification as outlined in CMC 16.15.140 shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under said section.

(2) The ~~Floodplain Administrator~~ Director shall use the following for floodplain boundaries, regulatory floodway boundaries, and base flood elevations when determining a special flood hazard area:

(a) Flood insurance rate maps;

(b) Preliminary flood insurance rate maps, as long as the preliminary data is more restrictive than the effective FIRM;

(c) Letters of map amendment; and

(d) Letters of map revision;

(3) When regulating development in special flood hazard areas mapped on the FIRM, the ~~Director~~ Floodplain Administrator shall determine the base flood elevation for existing conditions using the following sources:

(a) Flood insurance rate maps;

(b) Flood insurance studies;

(c) Preliminary flood insurance rate maps, as long as the preliminary data is more restrictive than the effective FIRM;

(d) Preliminary flood insurance studies, as long as the preliminary data is more restrictive than the effective FIS;

(e) Letters of map amendment;

(f) Letters of map revision;

(g) Historical flood hazard information, as long as the historical data is more restrictive than the effective FIS and FIRM;

(h) Flood studies prepared and approved by a recognized governmental agency, such as FEMA, the U.S. Army Corp of Engineers, Washington State, or King County; or

(i) Best available data, as determined by the Director, as long as the best available data is more restrictive than the effective FIS and FIRM.

**16.15.055 Determining other protected areas.**

(1) Channel migration zones (CMZ) are specified by public rule adopted by the Director. When channel migration zones have not been determined, they shall be the same as the Federal Emergency Management Agency (FEMA) floodway. Waters with no defined floodway or CMZ will be considered exempt from this protected area requirement. An applicant for a development proposal may submit a critical area report to the Department to determine channel migration zone boundaries on a specific property if there is an apparent discrepancy between the site-specific conditions and the adopted channel migration zone. The regulated CMZ includes the channel migration zone boundary and extends 50 feet landward in each direction from the stream.

(2) The riparian buffer zone (RBZ) is the area in the floodplain measured perpendicularly from the OHW line on each side of the watercourse landward. The stream type determines the distance. The RBZ does not extend past the floodplain boundary. The following water typing designations and distances shall be used to determine the applicable riparian buffer zone:

(a) Type S streams that are designated "shorelines of the State": 250 feet from the OHW line.

(b) Type F streams (fish bearing) streams greater than five feet wide and marine shorelines: 200 feet from the OHW line.

(c) Type F streams less than five feet wide and lakes: 150 feet from the OHW line.

(d) Type N (nonsalmonid-bearing) perennial and seasonal streams with unstable slopes: 225 feet from the OHW line.

(e) All other Type N (nonsalmonid-bearing) perennial and seasonal streams: 150 feet from the OHW line.

**16.15.057 Stormwater management.**

(1) Stormwater management shall be provided for projects located within lands to which this chapter applies. Stormwater management facilities shall not be located within floodways or the CMZ. Stormwater management facilities may be located within special flood hazard areas or the RBZ, subject to approval by the City Engineer; provided, that the increase in the water surface elevation of the base flood does not exceed the limits of CMC 16.15.320(2).

(2) Stormwater management facilities shall be designed in accordance with ~~CMC~~ Title 13 CMC.

**16.15.060 Penalty for noncompliance.**

Unless a variance is properly granted, no structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and any other applicable regulations. Any violation of the provisions of this chapter by failure to comply with any of its requirements, including but not limited to 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 be guilty of a misdemeanor and upon conviction thereof be fined not more than \$1,000 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 deemed necessary to prevent or remedy any violation.

**16.15.070 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 any other ordinance, easement, covenant or deed restriction conflict or overlap, the one which imposes the more stringent restrictions shall prevail.

**16.15.080 Interpretation.**

In the interpretation and application of this chapter all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and
- (3) Deemed neither to limit nor repeal any other powers granted under State statutes.

**16.15.090 Warning and disclaimer.**

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. More extensive 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 damage. This chapter shall not create liability on the part of the City, any officer or employee thereof or the Federal Insurance Administration for any flood damage that results from reliance on this chapter or any administrative decision lawfully made hereunder.

**Article II. Administration**

**16.15.100 Development permit required.**

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in CMC 16.15.050. The permit shall be for all structures, including manufactured homes, and for all development.

**16.15.110 Application for development permit.**

An application for a development permit shall be made on forms furnished by the ~~City administrator~~ Floodplain Administrator and will include such information as is required by the ~~local administrator~~ Floodplain Administrator, including but not 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. In addition, the following information shall be required from all applicants:

- (1) In relation to mean sea level, the proposed elevation of the lowest floor of all structures, including the basement;
- (2) In relation to mean sea level, the proposed elevation to which any nonresidential structure ~~has been~~ will be floodproofed;
- (3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria set forth in CMC 16.15.260; and

(4) A description of the extent to which a watercourse will be altered or relocated as a result of the proposed development.

**16.15.120 ~~Local administrator~~Floodplain Administrator.**

The ~~City Manager~~Floodplain Administrator, or his or her designee, is hereby appointed to act as the ~~local administrator~~Floodplain Administrator of this chapter and, to that end, shall administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

**16.15.130 ~~Local administrator~~Floodplain Administrator – Duties.**

The duties of the ~~local administrator~~Floodplain Administrator shall include, but are not limited to:

(1) Reviewing all development permits to determine whether the permit requirements of this chapter have been satisfied;

(2) Reviewing all development permits to determine whether all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required;

(3) Reviewing all development permits to ensure the site is reasonably safe from flooding; and

~~(4)~~ Reviewing all development permits to determine whether the proposed development is located in the floodway and, if so, ensuring that the encroachment provisions of CMC 16.15.350(2) are satisfied.

**16.15.140 ~~Local administrator~~Floodplain Administrator – Use of other base flood data.**

In order to administer CMC 16.15.250 through 16.15.285 when base flood elevation data has not been provided in accordance with CMC 16.15.050, the ~~local administrator~~Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from any Federal, State or other source.

**16.15.150 ~~Local administrator~~Floodplain Administrator – Information to be obtained.**

(1) Where base flood elevation data is provided through the flood insurance study or as set forth in CMC 16.15.140, the ~~local administrator~~Floodplain Administrator shall obtain and ~~record~~maintain the actual elevation, in relation to mean sea level, of the lowest floor (including basement) of all new or substantially improved structures, and, in addition, shall record whether or not said structures contain basements.

(2) For all new or substantially improved floodproofed structures where base flood elevation is provided through the flood insurance study or is set forth in CMC 16.15.140, the ~~local administrator~~Floodplain Administrator shall:

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

(b) Maintain the floodproofing certifications required in CMC 16.15.110(3).

(3) The ~~local administrator~~Floodplain Administrator shall maintain for public inspection all records pertaining to and required by the provisions of this chapter.   

(4) The Floodplain Administer shall maintain for public inspection all records pertaining to Improvement and damage calculations.

(5) The Floodplain Administer shall maintain for public inspection all records pertaining to the certification required by CMC 16.15.350(2) (floodway encroachments).

**16.15.160 ~~Local administrator~~Floodplain Administrator – Alteration of watercourses.**

Whenever any watercourse is to be altered or relocated, the ~~Floodplain local administrator~~  
Administrator shall:

- (1) Notify adjacent communities and the Department of Ecology prior to any such alteration or relocation and submit evidence of such notification to the Federal Insurance Administrator~~ion~~; and
- (2) Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained. ~~Require that maintenance be provided for within the altered or relocated portion of said watercourse so that its flood carrying capacity is not diminished.~~

**16.15.170 ~~Local administrator~~Floodplain Administrator – Interpretation of FIRM boundaries.**

The ~~local administrator~~Floodplain Administrator shall make all necessary interpretations as to the exact location of the boundaries of any areas of special flood hazard. The FIRM boundary shall be the sole determinant for jurisdiction and application of this chapter.

(1) Base Flood Elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, the Floodplain Administrator shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data in accordance with Volume 44 Code of Federal Regulations Section 65.3. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based upon current data.

(2) The Floodplain Administrator shall notify the Federal Insurance Administrator in writing of acquisition by means of annexation, incorporation or otherwise, of additional areas of jurisdiction.

**16.15.180 Variances and appeals.**

- (1) The Hearing Examiner shall hear and decide any appeal or request for a variance from the requirements of this chapter. Appeals and requests for variances shall be accompanied by a fee as set forth in the current fee resolution.
- (2) The Hearing Examiner shall hear and decide appeals when it is alleged that there is an error in any requirement, decision, or determination made by the ~~local administrator~~Floodplain Administrator in the enforcement or administration of this chapter. Appeals shall be heard in accordance with Chapter 14.45 CMC.
- (3) Anyone aggrieved by the decision of the Hearing Examiner, or any taxpayer, may appeal such decision to the King County Superior Court, as provided in the Land Use Petition Act.
- (4) In passing upon such appeals and variance requests, the Hearing Examiner shall consider all technical evaluations, all relevant factors and standards specified in other sections of this chapter, and, in addition:
  - (a) The danger that materials may be swept onto other lands to the injury of others;
  - (b) The danger to life and property due to flooding or erosion damage;

- (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (d) The importance of the services provided by the proposed facility to the City;
- (e) The necessity of a waterfront location for the facility, if applicable;
- (f) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
- (g) The compatibility of the proposed use with existing and anticipated development;
- (h) The relationship of the proposed use to the comprehensive plan and the floodplain management program for that area;
- (i) The safety of access to the property for ordinary and emergency vehicles in times of flood;
- (j) The expected height, velocity, duration, rate of rise and sediment transport of the flood water and the effects of wave action, if applicable, expected at the site; and
- (k) The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets and bridges.

(5) Upon due consideration of the factors set forth in subsection (4) of this section as well as the purposes of this chapter, the Hearing Examiner may, in his discretion, attach such conditions to the granting of any variance as he deems necessary to further the purposes of this chapter.

(6) The ~~local administrator~~ Floodplain Administrator shall maintain the records, including justification of their issuance, of all appeals and report any variances to the Federal Insurance Administrator ~~or~~ upon request.

#### **16.15.190 Variances – Permissible conditions.**

(1) As interpreted in the National Flood Insurance Program, a variance is based on the general zoning law principle that the variance pertains to a physical piece of property, is not personal in nature and does not pertain to the structure, its inhabitants or any economic or financial circumstances. A variance primarily pertains to small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

(2) A variance may be issued for the reconstruction, rehabilitation or restoration of any historic structures ~~listed on the National Register of Historic Places or the State Inventory of Historic Places~~ ~~without regard to the procedures set forth in this section~~, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure.

(3) A variance shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would thereby result.

(4) A variance shall only be issued upon:

- (a) A showing of good and sufficient cause;
- (b) A determination that denial of the variance application would result in exceptional hardship to the applicant;
- (c) A determination that granting the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create a nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances; and
- (d) A determination that, considering the flood hazard, the variance is the minimum necessary to afford relief.

(5) In very limited circumstances, a variance to allow a lesser degree of floodproofing than watertight or dry-floodproofing may be issued for a nonresidential building where it can be demonstrated that such action will have low damage potential, complies with all other variance criteria of this section, and otherwise complies with CMC 16.15.200 and 16.15.210.

(6) Any applicant to whom a variance is granted shall be afforded written notice over the signature of a community official that the issuance of a variance for a structure will be permitted to be built with a lowest floor elevation below the base flood elevation will result in increased premium flood insurance rates as high as \$25 for \$100 of insurance coverage and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation such construction increases risks to life and property.

#### **16.15.195 Exemptions.**

The following activities and developments are exempt from the provisions of this chapter. All exempted activities shall use reasonable methods to avoid potential impacts to special flood hazard areas. An exemption from this chapter is not an endorsement to degrade a special flood hazard area, ignore risk from natural hazards, or otherwise limit the ability of the ~~Director~~ Floodplain Administrator to identify and abate such actions that may cause degradation.

(1) Activities and development in response to emergencies that, in the opinion of the ~~Director~~ Floodplain Administrator, threaten public health, safety or welfare; or that pose an immediate risk of damage to property and that require remedial or preventative action in a time frame too short to allow for compliance with the requirements of this chapter. In the event a person determines that the need to take emergency action is so urgent that there is insufficient time for review by the Department, such emergency action may be taken immediately. The person undertaking such action shall notify the Department within one working day of the commencement of the emergency activity. The ~~Director~~ Floodplain Administrator will determine what, if any, mitigation shall be required to protect health, safety, welfare, and environment and to repair any resource damage. In such cases, permits shall be obtained retroactively.

(2) Operation, maintenance, or repair of existing public improvements, utilities, public roads, parks, trails, or drainage systems if the activity does not further alter or increase impact to, or encroach further within, the special flood hazard area and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair, and no new clearing of native vegetation beyond routine pruning.

(3) Normal maintenance and repair.

(4) Recreation, education, and scientific research activities that do not require grading, native vegetation clearing, or placement of structures.

(5) Site reconnaissance necessary for preparing land use or building permit applications. Any disturbance of the special flood hazard area shall be the minimum necessary to conduct the site reconnaissance and the area shall be restored to its previous condition immediately.

(6) Removal by hand of invasive and noxious vegetation. Removal by hand does not include using mechanical equipment or the use of herbicides.

(7) Normal maintenance and continuation of existing landscaping and gardens that were legally established prior to City incorporation. This exemption shall be documented by photographs, statements, and/or other evidence provided by the applicant. The use of herbicide is not permitted under this exemption in wetlands and streams or their buffers for the control of invasive vegetation.

(8) Excavation of cemetery graves in an established cemetery where the approval of the plots predates the City's participation in the NFIP or has an approved flood permit. Maintenance, operation, or repair of the cemetery graves as long as any such alteration does not involve the expansion of improvements.

**16.15.197 Partial exemptions.**

The following activities are partial exemptions to the provisions of this chapter and require written approval from the ~~Director~~Floodplain Administrator. The ~~Director~~Floodplain Administrator may require supporting documentation, prepared by a qualified professional, to demonstrate compliance with partial exemptions:

(1) Demolition of structures and impervious surfaces for restoration to pervious or landscaped areas, provided they are not a precursor to development. The applicant shall submit a temporary erosion and sedimentation control plan and apply for applicable demolition permit(s).

(2) Vegetation maintenance such as hazard tree removal, removal of nuisance vegetation, and limited pruning for view preservation. The applicant shall submit a vegetation maintenance plan prepared by a certified arborist or registered landscape architect that includes the following:

(a) A site plan at appropriate scale denoting the extent of the proposed vegetation maintenance activity;

(b) Tree and vegetation location, type, and caliper of each tree within the area subject to the proposed vegetation maintenance activity;

(c) Identification of methods of vegetation maintenance (limited to hand tools and hand powered tools);

(d) Location of private septic systems if applicable; and

(e) Proposed tree and/or vegetation replacement shown on the site plan.

**Article III. Flood Hazard Reduction – General Standards**

**16.15.200 Flood hazard reduction – Anchoring.**

In all areas of special flood hazard, the following standards for anchoring shall be complied with:

(1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

(2) All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement and, in addition, shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, over-the-top or frame ties to ground anchors and additional techniques referred to in the Federal Emergency Management Agency's "Manufactured Home Installation in Flood Hazard Areas" guidebook.

**16.15.210 Flood hazard reduction – Construction materials and methods.**

In all areas of special flood hazard, the following standards for construction materials and methods shall be complied with:

(1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

(2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage; and

(3) 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 conditions of flooding.

**16.15.220 Flood hazard reduction – Utilities.**

In all areas of special flood hazard, the following standards pertaining to utilities shall be complied with:

(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood water into the system;

(2) All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood water into the systems and, in addition, discharge from the systems into flood water;

(3) All on-site waste disposal systems shall be located so as to avoid impairment to them or contamination from them during flooding; and

(4) Water wells for potable water shall not be located in the floodway or channel migration zone.

**16.15.230 Flood hazard reduction – ~~Subdivision~~ Development proposals.**

In all areas of special flood hazard, the following standards pertaining to ~~subdivision~~ development proposals, including subdivisions and manufactured home parks or subdivisions, shall ~~be complied with:~~

(1) ~~All subdivision proposals shall b~~ e consistent with the need to minimize flood damage;

(2) ~~All subdivision proposals shall h~~ ave public utilities and facilities such as sewer, gas, electrical and water systems located and constructed so as to minimize or eliminate flood damage;

(3) ~~All subdivision proposals shall h~~ ave adequate drainage provided to reduce exposure to flood damage; and

(4) Where base flood elevation data has not been provided or is not available from another authoritative source, such data shall be generated for ~~subdivision~~ all development proposals greater than and other proposed developments which contain at least 50 lots or five acres, whichever is the lesser.

**16.15.240 Flood hazard reduction – Review of building permits.**

In all areas of special flood hazard, where elevation data is not available through the flood insurance study or from some other authoritative source pursuant to CMC 16.15.140, an application for a building permit shall be reviewed to assure that the proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and may include, but is not limited to, the use of historical data, high water marks, and photographs of past flooding, where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

**16.15.245 Flood hazard areas certification by surveyor.**

(1) For all new structures or substantial improvements in a flood hazard area, the applicant shall provide a FEMA elevation certificate completed by a professional land surveyor licensed by the State of Washington documenting:

(a) The actual as-built elevation of the lowest floor, including basement; and

(b) The actual as-built elevation to which the structure is dry floodproofed, if applicable. Floodproofing requires a separate certificate and is not recorded on the elevation certificate.

(2) The applicant shall submit a FEMA elevation certificate before the issuance of a certificate of occupancy or temporary certificate of occupancy, whichever occurs first. For unoccupied structures, the applicant shall submit the FEMA elevation certificate before the issuance of the final letter of completion or temporary letter of completion, whichever occurs first.

(3) The land surveyor shall indicate if the structure has a basement.

(4) The Department shall maintain the certifications required by this section for public inspection and for certification under the National Flood Insurance Program.

**Article IV. Flood Hazard Reduction – Specific Standards**

**16.15.250 Flood hazard reduction – Residential construction.**

In all areas of special flood hazard where base flood elevation data has been provided pursuant to CMC 16.15.050 or 16.15.140, the following provisions pertaining to residential construction shall be complied with:

(1) New construction and substantial improvement of any residential structure shall have the lowest floor, including any basement, elevated one foot or more above the base flood elevation; Mechanical equipment and utilities shall be waterproof or elevated at least one foot above the base flood elevation; and

(2) Fully enclosed areas below the lowest floor usable solely for parking, access or storage and 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 flood water. Designs for meeting this requirement must 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; and
- (c) Openings may be equipped with screens, louvers or other coverings, or devices; provided, that they permit the automatic entry and exit of flood water.

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

(3) Construction of Below-Grade Crawlspace.

(a) The interior grade of a crawlspace must not be more than two feet below the exterior lowest adjacent grade (LAG).

(b) The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four feet at any point.

(c) There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event.

(d) The velocity of floodwaters at the site should not exceed five feet per second for any crawlspace.

See Technical Bulletin 11 for further information.

Caution:

Buildings that have below-grade crawlspaces will have higher flood insurance premiums than buildings that have the preferred crawlspace construction, with the interior elevation of the crawlspace soil at or above the Base Flood Elevation (BFE).

(4) All crawlspaces that have enclosed areas or floors below the BFE must be:

(a) Designed and adequately anchored to resist flotation, collapse and later movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(b) Have openings that allow for the automatic entry and exit of floodwaters. The bottom of the flood opening can be no more than 1 foot above the lowest adjacent exterior grade and meet the requirements in CMC 16.15.250(2);

(c) Constructed with materials resistant to flood damage, including foundation walls, joists, insulation or other materials that will be below BFE;

(d) Located in areas where flood velocities do not exceed five feet per second; and

(e) Any building utility systems within the crawlspace must be elevated above the BFE or designed so that floodwaters cannot enter or accumulate with the system components during flood conditions.

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

**16.15.260 Flood hazard reduction – Nonresidential construction.**

~~In all areas of special flood hazard where base flood elevation data has been provided pursuant to CMC 16.15.050 or 16.15.140, the following provisions pertaining to nonresidential construction shall be complied with:~~ New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet the requirements of subsection 1 or 2, below:

(1) New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet all of the following requirements: ~~have the lowest floor, including basement, elevated one foot above the base flood elevation, or, alternatively, together with attendant utility and sanitary facilities, shall:~~

(a) In AE or other A zoned areas where the base flood elevation has been determined or can be reasonably obtained: have the lowest floor, including basement, elevated one foot or more above the base flood elevation, or as required by ASCE 24, whichever is greater.

(b) If located in an A zone for which a base flood elevation 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.

(c) 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 criteria:

(i) Have a minimum of two openings with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.

(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 exist of floodwaters.

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

(2) 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:

(a) Be 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 flood proofed to the elevation required by ASCE 24, whichever is greater;

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

(c) 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 the provisions of this subsection based on his/her development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the local administrator Floodplain Administrator as set forth in CMC 16.15.150(2).

(2) Nonresidential structures that are elevated and not floodproofed must meet the standards for space below the lowest floor set forth in CMC 16.15.250(2).

(3) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level, that is, a building floodproofed to the base flood level will be rated as one foot below.

**16.15.270 Flood hazard reduction – Manufactured homes.**

In all areas of special flood hazard where base flood elevation data has been provided pursuant to CMC 16.15.050 or 16.15.140, the following provisions pertaining to manufactured homes shall be complied with:

(1) Any manufactured home which is to be placed or substantially improved within Zones A and A1-30, AH or AE on the City's FIRM on sites which are: (a) outside of a manufactured home park or subdivision; (b) in a new manufactured home park or subdivision; (c) in an expansion to an existing manufactured home park or subdivision; or (d) in an existing manufactured home park or subdivision in which a manufactured home has incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation so that the lowest floor of the manufactured home is elevated one foot above the base flood elevation and, in addition, securely anchored to an adequately anchored foundation system so as to resist flotation, collapse and lateral movement.

(2) Any manufactured home which is to be placed or substantially improved in an existing manufactured home park or subdivision located within Zones A and A1-30, AH or AE on the City's FIRM and which is not subject to the provisions of subsection (1) of this section shall be elevated so that: (a) the lowest floor of the manufactured home is elevated one foot above the base flood elevation; or (b) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and, in addition, securely anchored to an adequately anchored foundation system so as to resist flotation, collapse, and lateral movement.

**16.15.280 Flood hazard reduction – Recreational vehicles.**

In all areas of special flood hazard, the following provisions pertaining to recreational vehicles shall apply:

~~(1) Meet the requirements of CMC 18.50.190;~~

(1) Be on site for fewer than 180 consecutive days;

(2) Be fully licensed and ready for highway use, on its wheels or jacking system and attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached addition(s); or

(3) Meet the requirements of CMC 16.15.270 and the elevation and anchoring requirements for manufactured homes.

**16.15.285 AE and A1-30 Zones with base flood elevations but no floodways.**

In areas with base flood elevations (but 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 of the base flood more than one foot at any point within the community.

**16.15.310 Critical facility.**

To the extent possible, the construction of any new critical facility shall be located outside the limits of the special flood hazard area (100-year floodplain). Construction of any new critical facility shall be permissible within the special flood hazard area if no feasible alternative site is available. Any critical facility constructed within said area shall have the lowest floor elevated three feet or more above the level of the base flood elevation at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into flood waters. To the extent possible, access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.

**Article V. Floodplain Protection – Specific Standards**

**16.15.315 Allowable development activities in all flood hazard area zones.**

(1) The development activities identified below are allowed within all zones, subject to review under this code:

- (a) Maintenance, repair, or replacement of a dock or pier;
- (b) Construction of new slope stabilization or maintenance of existing slope stabilization provided fill, native vegetation clearing, and encroachment limits are addressed;
- (c) Clearing of nonnative, exotic or invasive vegetation by hand or other nonmechanical means;
- (d) Maintenance or repair of an existing bridge or culvert;
- (e) Replacement of a bridge or culvert, for public roads, subject to compliance with this section and for the purpose of betterment for flood control, stream habitat improvement, or fish passage;
- (f) Maintenance, repair, or replacement of an existing flood protection facility, provided there is no increase or betterment. Improved facilities would be evaluated as new;
- (g) Maintenance or repair of an outdoor public park facility or trail;
- (h) Habitat enhancement or restoration; and
- (i) Construction or expansion of stormwater or drainage conveyance systems.

**16.15.320 Floodplain and floodway fringe development standards and alterations.**

In addition to other requirements of this chapter, the following standards apply to development proposals and alterations on sites within the floodplain and floodway fringe:

(1) Development proposals and alterations shall not reduce the effective base flood storage volume of the floodplain. A development proposal shall provide compensatory storage if grading or other activity displaces any effective flood storage volume. Compensatory storage shall:

- (a) Provide equivalent volume at equivalent elevations to that being displaced;
- (b) Hydraulically connect to the source of flooding;
- (c) Provide compensatory storage in the same construction season as when the displacement of flood storage volume occurs and before the flood season begins on September 30th for that year; and
- (d) Occur on the site. The ~~Director~~ **Floodplain Administrator** may approve equivalent compensatory storage off the site if legal arrangements, acceptable to the Department, are made to assure that the effective compensatory storage volume will be preserved over time;

~~(2) In all areas of special flood hazard, the cumulative effect of any proposed development, combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point;~~

~~(3)~~ A registered professional engineer shall design and certify all elevated construction and submit the design to the City prior to construction;

~~(3)~~ Subdivisions, short subdivisions, and commercial development proposal binding site plans shall meet the following requirements:

- (a) New building lots shall include 5,000 square feet or more of buildable land outside the floodplain. Structures and other development shall be located in this area;
- (b) All utilities and facilities such as sewer, gas, electrical and water systems are consistent with this section;
- (c) A professional engineer shall identify base flood elevations in accordance with FEMA guidelines for all new lots;
- (d) A development proposal shall provide adequate drainage in accordance with the stormwater manuals adopted in ~~CMC~~ Title 13 **CMC**; and
- (e) The face of the recorded subdivision, short subdivision, or binding site plan shall include the following for all lots:
  - (i) Building setback areas restricting structures to designated buildable areas;
  - (ii) Base flood data and sources and flood hazard notes including, but not limited to, base flood elevations, required flood protection elevations, the boundaries of the floodplain and the zero-rise floodway, if determined; and channel migration zone boundaries, if determined; and
  - (iii) Include the following notice:

Lots and structures located within flood hazard areas may be inaccessible by emergency vehicles during flood events. Residents and property owners should take appropriate advance precautions.

(45) If an existing lot does not have sufficient buildable area outside of the floodplain (5,000 square feet), the following shall apply:

- (a) Structures must be located to the non-floodplain area to the extent practicable;
- (b) If the lot has no buildable area outside of the floodplain, all structures and development must be sited to have the least impact on the floodplain and riparian habitat;
- (c) All structures must be set back at least 15 feet from the RBZ and shall be sited as close to the 100-year floodplain boundary as possible;
- (d) Creation of new impervious surfaces shall not exceed 10 percent of the surface area of the portion of the lot in the floodplain unless mitigation is provided to make the impervious area ineffective;
- (e) Roads and access driveways to the site are not permitted in the floodplain, except if they are the sole and least impactful access to the site;
- (f) No new stream crossings over Type S, F, or Np streams are allowed to provide access to floodprone sites;

(56) New development or improvements to the following publicly owned infrastructure in the floodplain shall meet the following standards:

(a) Public trails and nonmotorized travel ways shall be allowed in floodplains subject to the following:

- (i) Trails are not allowed in CMZ or floodways;
- (ii) Floodplain storage compensation requirements of subsection (1) of this section are met;
- (iii) The facility is elevated above the base flood elevation, floodproofed, or signed for closure to protect public safety during flood events;
- (iv) Low impact design measures are applied to the extent practicable to make the impervious surface ineffective;
- (v) Removal of native vegetation is minimized and compliant with other City standards;

(b) Public road improvements at stream crossings or in floodplains shall be allowed in all floodplain zones subject to the following:

- (i) Encroachment into the floodway does not exceed existing conditions;
- (ii) Fill and encroachment into the floodplain are minimized to the extent practicable;
- (iii) Floodplain storage compensation requirements of subsection (1) of this section are met;

(c) Stormwater management facilities shall be allowed in all floodplain zones subject to the following:

- (i) Facilities are not allowed in the floodway or CMZ;
- (ii) Fill and encroachment into the floodplain are minimized to the extent practicable;
- (iii) Floodplain storage compensation requirements of subsection (1) of this section are met;
- (iv) Removal of native vegetation is minimized and compliant with other City standards;

~~(67)~~ Public and private utilities shall meet the following standards:

(a) Dry-proof new and replacement utilities including, but not limited to, sewage treatment and storage facilities, to, or elevate above, the flood protection elevation;

(b) Locate new on-site sewage disposal systems outside the floodplain. When there is insufficient soil or area outside the floodplain, new on-site sewage disposal systems are allowed only in the floodway fringe. Locate on-site sewage disposal systems in the floodway fringe to avoid:

- (i) Impairment to the system during flooding;
- (ii) Contamination from the system during flooding;
- (iii) Design all new and replacement water supply systems to minimize or eliminate infiltration of flood waters into the system;
- (iv) Above-ground utility transmission lines, except for electric transmission lines, are allowed only for the transport of nonhazardous substances; and
- (v) Bury underground utility transmission lines transporting hazardous substances at a minimum depth of four feet below the maximum depth of scour for the base flood, as predicted by a civil engineer, and achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated;

~~(78)~~ Critical facilities are only allowed within the floodway fringe, when a feasible alternative site is not available and the following standards are met:

- (a) Elevate the lowest floor to the 500-year floodplain elevation or three or more feet above the base flood elevation, whichever is higher;
- (b) Dry floodproof and seal structures to ensure that hazardous substances are not displaced by or released into flood waters;
- (c) Elevate access routes to or above the base flood elevation from the critical facility to the nearest maintained public street or roadway.

**16.15.330 Riparian buffer zone development standards and alterations.**

The following standards apply to development proposals and alterations on sites within the RBZ, subject to the exceptions provided in CMC 16.15.315 and 16.15.320(6) and (7):

(1) The following development is not permitted in the RBZ:

- (a) New structures, including accessory buildings and nonresidential structures;
  - (b) New impervious surfaces;
  - (c) Removal of native vegetation;
  - (d) Grading, clearing, filling, or other related land disturbing activity, other than for approved restoration work.
- (2) If an existing lot does not have sufficient buildable area outside of the RBZ (5,000 square feet), the following shall apply:
- (a) Structures must be located to the non-RBZ area to the extent practicable;
  - (b) If the lot has no buildable area outside of the RBZ, all structures and development must be sited to have the least impact on the floodplain and riparian habitat;
  - (c) Other site development and nonresidential structures are not permitted in the RBZ;
  - (d) Roads and access driveways to the site are not permitted in the RBZ, except if they are the sole and least impactful access to the site. No new stream crossings are allowed to provide access to floodprone sites.

**16.15.340 Zero-rise and FEMA floodway development standards and alterations.**

The following standards apply to development proposals and alterations on sites within the zero-rise and FEMA floodways:

- (1) The standards that apply to the zero-rise flood fringe also apply to the zero-rise floodway. The more restrictive standards apply where there is a conflict;
- (2) A development proposal shall not increase the base flood elevation except as follows:
  - (a) Revisions to the flood insurance rate map are approved by FEMA, in accordance with 44 CFR ~~70\_65~~, to incorporate the increase in the base flood elevation; and
  - (b) Appropriate legal documents are prepared and recorded in which all property owners affected by the increased flood elevations consent to the impacts on their property;
- (3) If post and piling construction techniques are used, the following are presumed to produce no increase in base flood elevation and a critical areas report is not required to establish this fact:
  - (a) New residential structures outside the FEMA floodway on lots in existence before November 27, 1990, that contain less than 5,000 square feet of buildable land outside the zero-rise ~~or FEMA floodway if the total building footprint of all existing and proposed structures on the lot does not exceed 2,000 square feet~~;
  - (b) Substantial improvements of existing residential structures in the zero-rise floodway, but outside the FEMA floodway, if the footprint is not increased; or
  - (c) Substantial improvements of existing residential structures that meet the standards for new residential structures in Article III of this chapter;

(4) When post or piling construction is not used, a critical areas report is required in accordance with CMC 16.15.110 demonstrating that the proposal will not increase the base flood elevation;

(5) During the flood season from September 30th to May 1st the following are not allowed to be located in the zero-rise or FEMA floodway:

(a) All temporary seasonal shelters, such as tents and recreational vehicles; and

(b) Staging or stockpiling of equipment, materials or substances that the ~~Director~~Floodplain Administrator determines may be hazardous to the public health, safety, or welfare;

(6) New residential structures and substantial improvements to existing residential structures or any structure accessory to a residential use shall meet the following standards:

(a) Locate the structures outside the zero-rise and FEMA floodway;

(b) Locate the structures only on lots in existence before November 27, 1990, that contain less than 5,000 square feet of buildable land outside the zero-rise ~~or FEMA floodway~~; and

(c) To the maximum extent practical, locate the structures the farthest distance from the channel, unless the applicant can demonstrate that an alternative location is less subject to risk;

(7) Public and private utilities are only allowed if:

(a) The ~~Director~~Floodplain Administrator determines that a feasible alternative site is not available;

(b) A waiver is granted by the Department of Public Health of Seattle-King County for new on-site sewage disposal facilities;

(c) The utilities are dry floodproofed to or elevated above the flood protection elevation;

(d) Above-ground utility transmission lines, except for electrical transmission lines, are only allowed for the transport of nonhazardous substances; and

(e) Underground utility transmission lines transporting hazardous substances are buried at a minimum depth of four feet below the maximum depth of scour for the base flood, as predicted by a civil engineer, and achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated;

(8) Critical facilities, except for those listed in subsection (9) of this section, are not allowed within the zero-rise or FEMA floodway; and

(9) Structures and installations that are dependent upon the zero-rise floodway are allowed in the zero-rise floodway if the development proposal is approved by all agencies with jurisdiction and meet the development standards for the zero-rise floodway. These structures and installations may include, but are not limited to:

(a) Dams or diversions for water supply, flood control, irrigation or fisheries enhancement;

(b) Flood damage reduction facilities, such as levees, revetments and pumping stations, provided:

- (i) That the new structural flood hazard reduction measures are only allowed where demonstrated to be necessary;
  - (ii) Nonstructural methods are infeasible and mitigation is provided to achieve no net loss, such facilities must be located landward of associated wetlands and buffer areas except where no alternative exists;
- (c) Stream bank stabilization structures only if a feasible alternative does not exist for protecting structures, public roadways, flood protection facilities or sole access routes. Bank stabilization projects must meet the standards of the stormwater manuals adopted in ~~CMC~~ Title 13 CMC and use bioengineering techniques to the maximum extent practical. An applicant may use alternative methods to the guidelines if the applicant demonstrates that the alternative methods provide equivalent or better structural stabilization, ecological and hydrological functions and salmonid habitat;
- (d) Surface water conveyance facilities;
- (e) Boat launches and related recreation structures;
- (f) Bridge piers and bridge widening structures; provided, that the new abutments and piers are aligned with existing piers and abutments;
- (g) Culvert replacements that upgraded to current fish passage standards; and
- (h) Approved stream or wetland restoration projects including, but not limited to, fisheries enhancement projects.

**16.15.350 FEMA floodway development standards and alterations.**

Located within areas of special flood hazard are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood water which carries debris, potential projectiles, and erosion potential, the following provisions shall apply to development proposals and alterations on sites within the FEMA floodway areas:

- (1) The standards that apply to the zero-rise floodway also apply to the FEMA floodway. The more restrictive standards apply where there is a conflict;
- (2) A development proposal shall not increase the base flood elevation. Encroachments, including but not limited to fill, new construction, substantial improvements and other development, are prohibited unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed with standard engineering practice that said encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge;
- (3) New residential or nonresidential structures are prohibited within the FEMA floodway;
- (4) Reconstruction of residential structures is prohibited within FEMA designated floodways, except for:
  - (a) repairs, reconstruction or improvements to a structure which do not increase the ground floor area;
  - and (b) repairs, reconstruction of residential structures or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either: (i) before the repair or reconstruction is started; or (ii) if the structure has been damaged and is being restored, before the damage occurred. Any project for improvement for 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 minimums necessary to assure safe living conditions or to be structures identified as historic places may be excluded in the 50 percent.

(5) If subsection (4) of this section is satisfied, all new construction and substantial improvements in an area designated as a floodway shall comply with all the applicable flood hazard reduction provisions of CMC 16.15.200 through 16.15.310.

(6) If the footprint of the existing residential structure is not increased, substantial improvements of existing residential structures in the FEMA floodway meeting the requirements of this section are presumed to not increase the base flood elevation and do not require a critical areas report to establish this fact.

**16.15.360 Channel migration zones – Development standards and alterations.**

The following standards apply to development proposals and alterations on sites within CMZ that have been mapped and adopted by public rule:

(1) The following standards apply to development proposals and alterations within the regulated channel migration zone:

(a) Maintenance, repair or expansion of any use or structure is allowed if the existing structure's footprint is not expanded towards any source of channel migration hazard, unless the applicant can demonstrate that the location is the least subject to risk;

(b) New primary dwelling units, accessory dwelling units or accessory living quarters, and required infrastructure, are allowed if:

(i) The structure is located on a separate lot in existence on or before February 16, 1995;

(ii) A feasible alternative location outside of the regulated CMZ is not available on-site; and

(iii) To the maximum extent practical, the structure and supporting infrastructure is located the farthest distance from any source of channel migration hazard, unless the applicant can demonstrate that an alternative location is the least subject to risk;

(c) The subdivision of property is allowed within the portion of a regulated channel migration zone if:

(i) All lots contain 5,000 square feet or more of buildable land outside of the regulated CMZ;

(ii) Access to any lots does not cross the regulated CMZ; and

(iii) All infrastructure is located outside the regulated CMZ.