

## Chapter 15.64 - FLOODWAYS, FLOODPLAINS, DRAINAGE, AND EROSION

## Part I. - Floodways and Floodplains

15.64.000 – Statutory Authorization

A. 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 City Council of the City of Carnation does ordain as follows:

## 15.64.010 - Findings—Purpose—Flood loss reduction.

- A. Findings. The flood hazard areas of the City of Carnation are subject to periodic inundation which results 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. These flood losses are 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.
- B. Purpose. It is the purpose of this ordinance to promote the public health, safety, and general welfare; to reduce the annual cost of flood insurance, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:
- (1) To protect human life and health;
  - (2) To minimize expenditure of public money and costly flood control projects;
  - (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
  - (4) To minimize prolonged business interruptions;
  - (5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
  - (6) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
  - (7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and
  - (8) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
  - (9) To ensure that development within the special flood hazard area complies with applicable local, state and federal regulations.

(10) Participate in and maintain eligibility for flood insurance and disaster relief.

C. Flood loss reduction. In order to accomplish its purposes, this ordinance includes methods and provisions for:

- (1) Restricting or prohibiting development that is ~~uses which are~~ dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in 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 flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas.

(Ord. 634 § 4, 2001)

(Ord. No. 864, § 2, 8-4-2015; Ord. No. 930, § 3(Exh. B), 8-4-2020)

#### 15.64.015 – Definitions.

**Accessory Structure:** a structure on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure. For floodplain management purposes, the term includes only accessory structures used for parking and storage.

**Alteration of watercourse:** Any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

**Appeal:** A request for a review of the interpretation of any provision of this ordinance or a request for a variance.

**Area of shallow flooding:** A designated zone AO, AH, AR/AO or AR/AH ~~(or VO)~~ on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. Also referred to as the sheet flow area.

**Area of special flood hazard:** The land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as zone ~~A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE).~~ "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

**ASCE 24:** The most recently published version of ASCE 24, Flood Resistant Design and Construction, published by the American Society of Civil Engineers.

**Base flood:** The flood having a 1% chance of being equaled or exceeded in any given year (also referred to as the "100-year flood").

**Base Flood Elevation (BFE):** The elevation to which floodwater is anticipated to rise during the base flood.

**Basement:** Any area of the building having its floor sub-grade (below ground level) on all sides.

**Building:** See "Structure."

**Building Code:** The currently effective versions of the International Building Code and the International Residential Code adopted by the State of Washington Building Code Council.

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

**Coastal High Hazard Area:** ~~An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The area is designated on the FIRM as zone V1-30, VE or V.~~

**Critical Facility:** 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.

**Development:** Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard.

**Elevation Certificate:** An administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

**Elevated Building:** For insurance purposes, a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

**Essential Facility:** This term has the same meaning as "Essential Facility" defined in ASCE 24. Table 1-1 in ASCE 24-14 further identifies building occupancies that are essential facilities.

**Existing Manufactured Home Park or Subdivision:** 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 before the effective date of the floodplain management regulations adopted by the community.

**Expansion to an Existing Manufactured Home Park or Subdivision:** 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).

**Farmhouse:** A single-family dwelling located on a farm site where resulting agricultural products are not produced for the primary consumption or use by the occupants and the farm owner.

**Flood or Flooding:**

- 1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
  - a) The overflow of inland or tidal waters.
  - b) The unusual and rapid accumulation or runoff of surface waters from any source.
  - c) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(a) of this definition.

**Flood elevation study:** An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

**Flood Insurance Rate Map (FIRM):** 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).

**Flood Insurance Study:** See "Flood Elevation Study."

**Floodplain or flood-prone area:** Any land area susceptible to being inundated by water from any source. See "Flood or flooding."

**Floodplain administrator:** The community official designated by title to administer and enforce the floodplain management regulations.

**Floodplain management regulations:** Zoning ordinances, subdivision regulations, building codes, health regulations and, 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.

**Floodproofing:** Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. Floodproofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

**Floodway:** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Also referred to as "Regulatory Floodway."

**Functionally dependent use:** 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.

**Highest adjacent grade:** The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

**Historic structure: Any structure that is:**

- 1) 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;

- 2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- 3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- 4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
  - a) By an approved state program as determined by the Secretary of the Interior, or
  - b) Directly by the Secretary of the Interior in states without approved programs.

**Lowest Floor:** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance (i.e. provided there are adequate flood ventilation openings).

**Manufactured Home:** 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."

**Manufactured Home Park or Subdivision:** A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**Mean Sea Level:** 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.

**New construction:** 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.

**New Manufactured Home Park or Subdivision:** 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 adopted by the community.

**One-hundred-year flood or 100-year flood:** See "Base flood."

**Reasonably Safe from Flooding: Development** that is designed and built to be safe from flooding based on consideration of current flood elevation studies, historical data, high water marks and other reliable data known to the community. In unnumbered A zones where flood elevation information is not available and cannot be obtained by practicable means, reasonably safe from flooding means that the lowest floor is at least two feet above the Highest Adjacent Grade.

**Recreational Vehicle:** A vehicle,

- 1) Built on a single chassis;
- 2) 400 square feet or less when measured at the largest horizontal projection;
- 3) Designed to be self-propelled or permanently towable by a light duty truck; and
- 4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

**Start of construction:** Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

**Structure:** For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

**Substantial Damage:** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

**Substantial improvement:** Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

- 1) Any project for improvement of a structure to correct previously identified existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions; or
- 2) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

**Variance:** A grant of relief by a community from the terms of a floodplain management regulation.

**Water surface elevation:** The height, in relation to the vertical datum utilized in the applicable flood insurance study of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

**Water Dependent:** A structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.

#### 15.64.015 - General provisions.

- A. Applicability. The floodplain management regulations set forth in this chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Carnation.
- B. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance ~~Administrator Administration~~ in a scientific and engineering report entitled "The Flood Insurance Study for King County and Incorporated Areas" (FIS) dated August 19, 2020, and any revisions thereto, with an accompanying ~~flood insurance rate map~~ Flood Insurance Rate Maps (FIRMs), dated August 19, 2020, and any revisions thereto, are adopted by reference and declared to be a part of this chapter. The ~~(FIS)~~ and the FIRM are on file with the city clerk at Carnation ~~C~~city ~~H~~hall and available for public inspection and copying. The best

available information for flood hazard area identification as outlined in CMC Section 15.64.020(D)(4) shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under CMC Section 15.64.020(D)(4).

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

G.D. Penalties. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than one thousand dollars or imprisoned for not more than ninety 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 of Carnation city from taking such other lawful action as is necessary to prevent or remedy any violation. Each day that a violation exists shall constitute a separate violation.

D.E. Abrogation and greater restrictions. This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

E.F. 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.

G. Warning and disclaimer of liability. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of ~~the~~ the City of Carnation city, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder. (Ord. 684 § 2, 2005; Ord. 634 § 5, 2001)

F.H. Severability. This ordinance and the various parts thereof are hereby declared to be severable. Should any Section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the Section so declared to be unconstitutional or invalid.

(Ord. No. 930, § 3(Exh. B), 8-4-2020)



## 15.64.020 - Administration.

- A. Development Permit Required. A Floodplain Development permit-Permit shall be obtained before construction or development begins within any area of special flood hazard established in CMC 15.64.015 (B)(B). The permit shall be for all structures including manufactured homes, as set forth in CMC 15.08-01064.015 and for all development including fill and other activities, also defined in CMC 15.08-01064.015.
- B. Application for Floodplain Development Permit. Application for a Floodplain dDevelopment Ppermit shall be made on forms furnished by the city and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:
1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate with Section B completed by the Floodplain Administrator;
  2. Elevation in relation to mean sea level to which any structure has been floodproofed;
  3. Where a structure is to be flood proofed, certification ~~Certification~~ by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in CMC 15.64.035(B); and
  4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.
  5. Assessment of the potential impacts of any development on the critical habitat of threatened and endangered salmon to ensure compliance with the Endangered Species Act (ESA) per the 2008 Biological Opinion on the implementation of the NFIP in the Puget Sound Region.
  6. Where development is proposed in the floodway, an engineering analysis indicating no rise of the base flood elevation (BFE).
  7. Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.
- C. Designation of local floodplain administrator. The building official, or designee, is hereby appointed to administer, implement, and enforce ~~and implement~~ this part ordinance/chapter by granting or denying development permit applications in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.
- D. Duties and responsibilities of local floodplain administrator. The duties of the building official or designee under this part shall include, but not be limited to:
1. Review all development permits to determine that the permit requirements of this part have been satisfied;
  2. Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required;



~~2-3.~~ Review all development permits to determine that the site is reasonably safe from flooding;

4. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of CMC 15.64.040 are met;

~~3-5.~~ Notify FEMA when annexations occur in the Special Flood Hazard Area

6. Notify FEMA of changes to the base flood elevation within six months of when technical information of such changes becomes available. Such notification shall include technical or scientific information.

~~4.~~ E. Use of Other Base Flood Data. When base flood elevation data has not been provided (~~AE or V~~-zone) in accordance with CMC Section 15.64.015 (B)(B), the building official or designee shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer CMC Sections 15.64.035 and 15.64.040;

~~5.~~ F. Information to be Obtained and Maintained. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in CMC 15.64.020(D)(4), obtain and maintain a record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement;

~~6.~~ 1. For all new or substantially improved flood-proofed nonresidential structures where base flood elevation data is provided through the flood insurance study, FIRM, or as required in subsection (D)(4) of this section:

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

2. Maintain the floodproofing certifications required in CMC 15.64.020(B);

~~b.~~ 3. Maintain for public inspection all records pertaining to the provisions of this part;

~~Maintain for public inspection all records pertaining to the provisions of this part;~~

4. Certification required by Section 5.4.1 (or the numbering system used by the community) (floodway encroachments)-CMC 15.64.020 (D) (4)

5. Records of all variance actions, including justification for their issuance.

6. Improvement and damage calculations.

G. Notification to Other Entities:

~~7.~~ Notify adjacent communities and the ~~D~~epartment of ~~E~~ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;

~~8.~~ Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished; and

H. Interpretation of FIRM Boundaries:

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in CMC.

I. Review of Building Permits:

Where elevation data is not available, either through the FIS, FIRM, or from another authoritative source ([Section 4.3-2](#)), CMC 15.64.020) applications for floodplain development shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available.

(Failure to elevate habitable buildings at least two feet above the highest adjacent grade in these zones may result in higher insurance rates.)

9- 15.64.025.

(Ord. 684 §§ 3, 4, 2005; Ord. 634 § 6, 2001)

(Ord. No. 864, § 3, 8-4-2015; Ord. No. 930, § 3(Exh. B), 8-4-2020; Ord. No. 971, § 1, 5-3-2023)

15.64.025 - Appeals and variances.

- A. The hearing examiner shall hear and decide appeals and requests for variances from the requirements of this chapter. The hearing examiner shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the building official or designee in the enforcement or administration of this ordinance. Those aggrieved by the decision of the building official or designee, or any taxpayer, may appeal such decision to the hearing examiner, as provided in Chapter 15.11 of the CMC.
- B. In passing upon such applications, the hearing examiner shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:
  1. The danger that materials may be swept onto other lands to the injury of others;
  2. The danger to life and property due to flooding or erosion damage;
  3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  4. The importance of the services provided by the proposed facility to the community;
  5. The necessity to the facility of a waterfront location, where applicable;
  6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  7. The compatibility of the proposed use with existing and anticipated development;
  8. The relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
  9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

C. Upon consideration of the factors of CMC 15.64.025(B) and the purposes of this chapter, the hearing examiner may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter. The hearing examiner shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

D. Conditions for Variances.

1. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (1-11) in CMC 15.64.025(B) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases;
2. Variances may be issued for the repair, rehabilitation, or restoration of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure;
3. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result;
4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
5. Variances shall only be issued upon:
  - a. A showing of good and sufficient cause;
  - b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
  - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

~~E.~~ Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances.

They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

~~F.E.~~ Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(Ord. 634 § 7, 2001)

(Ord. No. 930, § 3(Exh. B), 8-4-2020; Ord. No. 971, § 1, 5-3-2023)

#### 15.64.030 - General standards.

In all areas of special flood hazards, the following standards are required:

##### A. Anchoring.

1. All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy; and
2. All manufactured homes shall be anchored to prevent flotation, collapse or lateral movement, and shall be installed using engineering methods and engineering practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

B. AH Zone Drainage. Adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

##### C. Construction Materials and Methods.

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.

~~3.~~

##### D. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
2. A water well shall be located on high ground that is not in the floodway (WAC 173-160-171);

~~A water well shall be located on high ground that is not in the floodway (WAC 173-160-171);~~

3. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters; and

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

4. E. Subdivision Proposals.

1. All subdivision proposals shall be consistent with the need to minimize flood damage;
2. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
4. For subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less), base flood elevation data shall be included with the proposal. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated by the project proponent.

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

(Ord. 684 §§ 5, 6, 2005; Ord. 634 § 8, 2001)

(Ord. No. 930, § 3(Exh. B), 8-4-2020; Ord. No. 971, § 1, 5-3-2023)

15.64.035 - Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in CMC 15.64.015(B) or CMC 15.64.020(D)(4), the following provisions are required:

A. Residential Construction.

1. New construction, substantial improvement, and/or reconstruction due to substantial damage of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation. Mechanical equipment and utilities appurtenant to the residential structure shall be elevated at least one foot above the base flood elevation.
2. 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 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 floodwaters.
- 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.  
Mechanical equipment and utilities placed within an attached garage shall be elevated at least one foot above the base flood elevation.

Alternatively, a registered engineer or architect may design and certify engineered openings.

~~B. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:~~

- ~~1. 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;~~
  - ~~2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;~~
  - ~~3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the building official or designee as set forth in CMC 15.64.020(D)(6);~~
  - ~~4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in CMC 15.64.035(A)(2); and,~~
  - ~~5. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one foot below).~~
- ~~C. Manufactured Homes.~~

~~1.b) If located in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.~~

~~d) If located in a V, V1-30, or VE zone, the structure shall meet the requirements in Appendix B.~~

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

- ~~i) 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 exit of floodwater.

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

Alternatively, a registered engineer or architect may design and certify engineered openings.

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 dry flood proofed 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;

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 provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in 15.64.035(B); Section 4.3-3(3);

~~(Applicants who are flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood proofed level (e.g. a building flood proofed to the base flood level will be rated as one foot below). Flood proofing the building an additional foot will reduce insurance premiums.)~~

**C. Manufactured Homes.** All manufactured homes to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement. Mechanical equipment and utilities appurtenant to the manufactured home shall be elevated at least one foot above the base flood elevation. This requirement shall apply to manufactured homes at the following locations:

- 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 on which a manufactured home has incurred "substantial damage" as the result of a flood, and



2. Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions be elevated so that either:

- a. The lowest floor of the manufactured home is elevated one foot or more above the base flood elevation. Mechanical equipment and utilities appurtenant to the manufactured home shall be elevated at least 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 which the lowest floor of the manufactured home is elevated by one foot or more above the base flood elevation, and be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement. Mechanical equipment and utilities appurtenant to the manufactured home shall be elevated at least one foot above the base flood elevation.

D. Recreational vehicles. Recreational vehicles, if otherwise permitted by this title, are required to either:

1. Be on the site for fewer than one hundred eighty consecutive days;
2. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
3. Meet the requirements of CMC 15.64.035(C) and the elevation and anchoring requirements for manufactured homes.

#### E. Enclosed Area Below the Lowest Floor

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

#### F. AE and A1-30 Zones with Base Flood Elevations but No Floodways

In areas with BFEs (when a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and zone 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.

3-

(Ord. 634 § 9, 2001)

(Ord. No. 930, § 3(Exh. B), 8-4-2020; Ord. No. 971, § 1, 5-3-2023)

15.64.040 - Floodways.

Located within areas of special flood hazard established in CMC 15.64.015(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Encroachments, including fill, new construction, substantial improvements, and other development are prohibited within the designated floodway unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. Construction or reconstruction of residential structures is prohibited within designated floodways, except for:
  - (1) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area;
  - (2) Repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure either: (a) before the repair, or reconstruction is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred;
  - (3) Repairs or reconstruction of a substantially damaged residential structure as provided in RCW 86.16.041 as said section presently exists or is hereafter amended; and
  - (4) Repairs, reconstruction, or replacement of existing farmhouses in designated floodways as provided in RCW 86.16.041 as said section presently exists or is hereafter amended. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or any projects for improvements to structures identified as historic places shall not be included in the fifty percent.
- C. If CMC 15.64.040(A) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of CMC 15.64.030, 15.64.035, 15.64.040, 15.64.045, and 15.64.050.
- D. Excavation in the designated floodway is prohibited, except: (1) as otherwise required by law; (2) as part of a government funded or sponsored wildlife habitat enhancement project.

(Ord. 684 § 7, 2005; Ord. 634 § 10, 2001)

#### 15.64.045—Standards for shallow flooding areas (AO Zones).

~~Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:~~

- ~~A.—New construction and substantial improvements of residential structures and manufactured homes within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade to the structure, one foot or more above the depth number specified in feet on the community's FIRM (at least two feet above the highest adjacent grade to the structure if no depth number is specified). Mechanical equipment and utilities appurtenant to residential structures and manufactured homes shall be elevated at least one foot above the base flood elevation;~~
- ~~B.—New construction and substantial improvements of nonresidential structures within AO zones shall either:~~
- ~~1.—Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or~~
  - ~~2.—Together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as set forth in CMC 15.64.035(B)(3).~~
- ~~C.—Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.~~
- ~~D.—Recreational vehicles placed on sites within AO Zones on the community's FIRM either:~~
- ~~1.—Be on the site for fewer than one hundred eighty consecutive days;~~
  - ~~2.—Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or~~
  - ~~3.—Meet the requirements of CMC 15.64.045(A) and (C) and the anchoring requirements for manufactured homes set forth in CMC 15.64.030(A)(2).~~

~~(Ord. 634 § 11, 2001) (Ord. No.~~

~~971, § 1, 5-3-2023)~~

#### 15.64.050 - Critical facility.

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (one hundred year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet or to the height of the five hundred year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

(Ord. 634 § 12, 2001)

## Part II. - Drainage, Erosion Control, Stormwater Management

*Footnotes:*

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**Editor's note**— Ord. No. 781, § 2(Exh. A), adopted July 20, 2010, amended Ch. 15.64, part II, to read as set out here.  
Former Ch. 15.64, part II, pertained to similar subject matter.

## 15.64.160 - Purpose; intent.

The purpose of this part is to establish drainage standards governing the development and redevelopment of land within the city. The city of Carnation does not own or operate a stormwater utility or any other comprehensive system for the collection and treatment of storm runoff. As such, insuring adequate drainage of storm runoff must be accomplished exclusively through on-site retention and/or infiltration. The primary component of these standards is the requirement that the rate of stormwater discharge resulting from new development or redevelopment sites will not exceed the predeveloped condition rate of stormwater discharge. Another critical aspect of the following regulations is to place the financial and legal responsibility for the design, maintenance, operation and repair of private drainage facilities exclusively upon the owner(s) of the underlying property. Unless otherwise expressly provided in this part, the following provisions shall be interpreted in furtherance of these objectives. (Ord. No. 781, § 2(Exh. A), 7-20-2010; Ord. No. 816, § 2, 10-2-2012)

## 15.64.165 - Definitions.

A. "Predeveloped condition" shall mean the existing condition prior to submission of development application.

B.

"Rate of stormwater discharge" shall mean the rate of stormwater surface runoff from the site as modeled using the current version of the Department of Ecology Western Washington Hydrology Model which is based on continuous simulation hydrologic modeling.

(Ord. No. 816, § 3, 10-2-2012)

## 15.64.170 - Stormwater standards adopted.

A. The 2019 edition of the Washington State Department of Ecology's Stormwater Management Manual for Western Washington ("the manual") is hereby adopted by reference, including any future amendments, revisions, updates or future year editions thereof. A copy of the manual shall be maintained at city hall and made available for public inspection and copying upon request.

B. The provisions of this chapter shall supersede any inconsistent provisions of the manual to the extent of any irreconcilable conflict.

(Ord. No. 781, § 2(Exh. A), 7-20-2010; Ord. No. 846, § 2, 8-19-2014; Ord. No. 971, § 1, 5-3-2023)

15.64.180 - Natural drainage system utilized to extent feasible.

- A. To the extent practicable, all development shall conform to the natural contours of the land and natural and preexisting manmade drainage ways shall remain undisturbed.
- B. To the extent practicable, lot boundaries shall be made to coincide with natural and pre-existing manmade drainage ways within subdivisions to avoid the creation of lots that can be built upon only by altering such drainage ways.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

15.64.190 - Developments must drain properly.

- A. All developments shall be provided with a drainage system that is adequate to prevent the undue detention or retention of surface water on the development site. Surface water shall not be regarded as unduly detained or retained if:
  - 1. The detention or retention results from a technique, practice or device deliberately installed as part of an approved sedimentation or stormwater control plan; or
  - 2. The detention or retention is not substantially different in location or degree than the existing condition prior to the development or redevelopment, unless such detention or retention presents a danger to health or safety.
  - 3. The detention or retention is temporary, resulting from short ~~3-4~~ term fluctuations in groundwater level.

- B. No surface water may be channeled or directed into a sanitary sewer.

C.

Stormwater infiltration drainage shall be provided, on site, for all new development and redevelopment as defined in this chapter. Retention or detention of stormwater shall be provided, as required by this chapter, to ensure that stormwater discharge from new development and redevelopment does not exceed the predeveloped condition rate of stormwater discharge.

- 1. For purposes of determining the rate, stormwater discharges shall match developed discharge durations to predeveloped durations for the range of predeveloped discharge rates from fifty percent of the two-year peak flow up to the full fifty-year peak flow.
- D. The direct discharge to groundwater from untreated or polluted stormwater shall be governed by the applicable standards and procedures set forth in the manual.
- E. Private roads and access ways within unsubdivided developments shall utilize a storm drainage system designed by a licensed engineer to provide adequate drainage if the grade of such roads or access ways is too steep to provide drainage in another manner or if other sufficient reasons exist to require such construction.

F. For sites within the central business district, or in the mixed use zone if the property has frontage on Tolt Avenue, with insufficient space for on-site stormwater infiltration facilities, the director, in his or her sole discretion, may authorize construction of infiltration facilities within the public rights-of-way when design of the facility is acceptable to the director and the director determines sufficient space would remain to accommodate future buried utilities requirements. Such authorization may be granted pursuant to the following criteria:

1. The facility is properly sized for both the stormwater runoff from the site plus the runoff from the right-of-way tributary to the site.
2. The cost of facilities construction and right-of-way restoration is paid by the property owner.
3. A written covenant in a form approved by the city attorney has been recorded against the title of the underlying property containing without limitation the following provisions:
  - a. A city-approved maintenance and operation plan for the facility.
  - b. A permanent right of access for city personnel to inspect the facility.
  - c. A detailed construction design clearly depicting the location, depth, and operation of the facility.
  - d. The landowner agrees to indemnify, protect, defend, and hold harmless the city, its officers, employees, and volunteers, from any and all damages, injuries, costs, expenses, including attorneys fees, resulting from or otherwise arising out of, directly or indirectly, the location, installation, construction, operation, and/or repair of the facility.
  - e. An authorization, but not an obligation, for the city to perform any emergency maintenance or repair work necessary to insure the proper functioning of the facility and to charge all expenses therefrom to the landowner.
  - f. An agreement to relocate the facility at the landowner's exclusive expense to an alternative location within the public right-of-way whenever such relocation is deemed reasonably necessary by the director. Such relocation shall be completed within one hundred and twenty days of receipt of notice of the city's intent from the city; provided, however, that in the event of an emergency requiring relocation of the facility within a shorter time period, as determined by the director, the landowner shall relocate said facility in accordance with the director's instruction.

(Ord. No. 781, § 2(Exh. A), 7-20-2010; Ord. No. 816, § 4, 2012)

15.64.200 - Illegal discharge of materials into the stormwater system.

- A. The discharge of any material pollutant, substance or other matter other than stormwater into stormwater facilities or groundwater is prohibited.
- B. Illicit discharges to stormwater drainage systems are prohibited. Illicit discharges are unauthorized connections to the stormwater drainage systems or discharges that exceed the rate, volume and/or water quality requirements set forth in this chapter. (Ord. No. 781, § 2(Exh. A), 7-20-2010)

## 15.64.210 - Exemptions.

All new development or redevelopment is subject to minimum requirements set forth in this chapter except the following:

- A. Commercial agriculture, and forest practices regulated under Title 222 WAC, except for Class IV general forest practices that are conversions from timber land to other uses, are exempt from the provisions of this chapter.
- B. Development undertaken by the Washington State Department of Transportation in state highway rights-of-way is regulated by Chapter 173-270 WAC, the Puget Sound Highway Runoff Program.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

## 15.64.220 - Stormwater best management practices (BMPs).

A. General. BMPs shall be used for stormwater management, for source control of pollution, for runoff treatment, and for construction stormwater pollution prevention to comply with the standards in this chapter. Provided, that use of particular BMPs shall not excuse full compliance with the requirements set forth in this chapter unless expressly provided herein. Standard BMPs are described in the manual.

A-B. B.

All new development and redevelopment as defined in this chapter shall be required to implement BMPs for on-site stormwater management, for source control of pollution, for construction stormwater pollution prevention, and to manage stormwater discharge to avoid harming downstream properties, regardless of whether such activities require a permit.

- C. Experimental BMPs. The director may approve the use of BMPs that are not set forth in the manual ("Experimental BMPs"). Experimental BMPs are encouraged as a means of solving problems in a manner not addressed by the manual in an effort to improve stormwater quality technology. Experimental BMPs must be approved by the director in accordance with the approval process outlined in the manual. Experimental BMPs may include, but not be limited to pervious paving surfaces, rain-gardens, green roofs and soil improvements designed to mimic predevelopment soil conditions.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

## 15.64.230 - Permits required for regulated activities.

A. Regulated activities include:

- 1. All new development or redevelopment except for single family residential development, the result of which is to create, add or otherwise cause to exist upon a development site two thousand square feet or more of:
  - (i) new impervious surface area, (ii) replaced impervious surface area, or (iii) new impervious surface area plus replaced impervious surface area;
- 2. All new development or redevelopment that involves land disturbing activity, as defined in Chapter 15.08 CMC, of five thousand square feet up to three-fourths acres;
- 3. Class IV general forest practices involving conversions from timber land to other uses; or



4. Subdivision, short subdivision and binding site plans, as defined in Ch. 58.17.020 RCW.

~~B.~~ B. Regulated activities shall proceed only after the city approves a stormwater site plan and issues a drainage permit. Stormwater site plans shall include the following plans as required by this chapter:

1. Permanent stormwater control plan, in accordance with the manual.
2. Construction stormwater pollution prevention plan (SWPPP), in accordance with the manual.

~~C.~~ C. All costs for inspection, maintenance, operation and repair of private stormwater facilities shall be born exclusively by the property owner.

~~D.~~ D. A covenant containing a description, configuration, and operation and maintenance requirements of and with respect to the stormwater facilities shall be recorded against the title of the underlying property at the property owner's expense. The covenant shall be in a form approved and developed by the director, and shall include a dimensional plan view drawing depicting the record drawings location(s) of the stormwater facilities. The covenant shall authorize, but not require, the city to: (i) perform any maintenance or repair necessary to prevent damage to public or private property resulting from the property owner's failure to properly maintain and/or repair the facilities, and (ii) charge any expenses incurred therefore to the property owner.

~~E.~~ E. To ensure compliance with these standards, maintenance bonding or other appropriate financial instruments shall be required for all stormwater facilities serving commercial properties, long or short plats, and stormwater facilities constructed within public rights-of-way. The duration and amount of any bonding/security requirements shall be fifteen percent of the value of the improvement, to be held by the city for two years.

~~F.~~ F. Nothing in this chapter shall be construed as exempting any development project or activity from any other requirement concerning storm runoff under any applicable federal, state or local regulation, specifically including without limitation any other provision of the CMC.

(Ord. No. 781, § 2(Exh. A), 7-20-2010; Ord. No. 826, § 2, 2-5-2013; Ord. No. 846, § 3, 8-19-2014)

15.64.235 - Compliance with state regulations.

All stormwater drainage shall, in addition to compliance with the provisions of this chapter, comply fully with all applicable state and/or federal regulations, specifically including without limitation the following:

- A. Underground injection wells shall be registered with the Washington State Department of Ecology in accordance with WAC Chapter 173-218, Underground Injection Control Program.
- B Discharge of storm water runoff into groundwater shall comply with the provisions of WAC Chapter 173-200 Water Quality Standards for Groundwaters of the State of Washington.

(Ord. No. 816, § 5, 10-2-2012)

15.64.240 - Replacement of impervious surfaces, exceptions for maintenance.

Replacement of existing impervious surfaces for routine maintenance including re-roofing, roof replacement and routine overlays of existing paved surfaces shall not count as replacement for purposes of calculating the volume of impervious surface that requires a permit.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

#### 15.64.250 - Minimum requirements for large projects.

##### A. Large projects shall be defined as:

1. All new development or redevelopment that creates or adds five thousand square feet or more of new, replaced, or new plus replaced impervious surface area, or
2. All new development or redevelopment that converts three-fourths acres or more of native vegetation to lawn or landscape areas.

##### B. In addition to providing a stormwater site plan, large projects shall provide the following minimum requirements, as applicable, in accordance with the manual:

- a. Runoff treatment.
- b. Flow control.
- c. Wetlands protection.
- d. Basin/watershed planning.
- e. Operation and maintenance.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

#### 15.64.260 - Road-related projects.

For projects primarily involving the installation, construction, repair, replacement and/or relocation of streets, roadways, alleys and sidewalks, runoff from replaced and new impervious surfaces (including pavement, shoulders, curbs, and sidewalks) shall meet all of the minimum requirements for large projects as described in this chapter if the new impervious surfaces total five thousand square feet or more and total fifty percent or more of the existing impervious surfaces within the project limits. (Ord. No. 781, § 2(Exh. A), 7-20-2010)

#### 15.64.270 - Exceptions.

Exceptions to minimum requirements for new development or redevelopment may be granted by the director prior to permit approval and construction, provided that:

1. The exception provides substantially equivalent environmental protection; and that the objectives of safety, function, environmental protection and facility maintenance, based upon sound engineering, are met;
2. That there are special physical circumstances or conditions affecting the property such that the strict application of these provisions would deprive the applicant of all reasonable use of the parcel of land in

question, and every reasonable effort to find creative ways to meet the intent of the minimum standards has been made;

3. That the granting of the exception will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and
4. The exception is the least reasonably possible exception that could be granted to comply with the intent of the minimum requirements.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

#### 15.64.280 - Administration.

- A. Director. The city manager or designee shall administer this part, and shall be referred to as the director. The director shall have the authority to develop and implement administrative procedures to administer and enforce this part.
- B. Review and Approval. The director may approve, conditionally approve or deny an application for activities regulated by this part.
- C. Enforcement Authority. The director shall have the authority to enforce this part.
- D. Inspection. All activities regulated by this part, except those exempt in Section 15.64.210, shall be inspected by the director or designee. The director shall inspect projects at various stages of the work requiring approval to determine that adequate control is being exercised. Stages of work requiring inspection may include, but are not limited to, preconstruction; installation of BMPs; land disturbing activities; installation of utilities, landscaping, retaining walls and completion of project. When required by the director, a special inspection and/or testing shall be performed. (Ord. No. 781, § 2(Exh. A), 7-20-2010; Ord. No. 971, § 1, 5-3-2023)

#### 15.64.290 - Enforcement.

- A. General enforcement action may be taken whenever a person has violated any provision of this chapter. The choice of enforcement action and the severity of any penalty shall be based on the nature of the violation, the damage or risk to the public or to public resources, and/or the degree of bad faith of the person subject to the enforcement action.
- B. Stop Work Order. The director shall have the authority to serve a person a stop work order if an action is being undertaken in violation of this chapter.
  1. Content of Order. The order shall contain:
    - a. A description of the specific nature, extent, and time of violation and the damage or potential damage; and
    - b. A notice that the violation or the potential violation cease and desist, and, in appropriate cases, the specific corrective action to be taken within a given time. A civil penalty may be issued with the order.

2. Notice. A stop work order shall be imposed by a notice in writing, either by certified mail with return receipt requested, or by personal service, to the person incurring the same.
3. Effective Date. The stop work order issued under this section shall become effective immediately upon receipt by the person to whom the order is directed.
4. Compliance. Failure to comply with the terms of a stop work order may result in enforcement actions including, but not limited to, criminal misdemeanor liability in addition to the issuance of a civil penalty, including fines imposed ranging from one hundred dollars to five hundred dollars per day.
5. The director shall consider the following factors to determine the amount of fine imposed:
  - a. Severity of the violation.
  - b. Amount of damage to private and/or public property resulting from the violation.
  - c. The compliance history of the property.
  - d. Evidence of good or bad faith by the violator including without limitation the delay in achieving compliance upon notice of the violation.

(Ord. No. 781, § 2(Exh. A), 7-20-2010)

#### 15.64.300 Flexibility - in administration permitted.

- A. Purpose. The city recognizes that the wide variety of types of development, natural systems and unique topography in the city weighs against the inflexible enforcement of standards set forth in this chapter. The purpose of this section is to authorize the director to permit deviations from the strict adherence to certain requirements and to either require more intensive or allow less intensive requirements or alternatives whenever the director finds that such deviations or alternatives will alternately achieve the purposes of this chapter without imposing unnecessary costs.
- B. Areas with Seasonal High Groundwater or Flooding. The city recognizes that in areas with exceptionally high seasonal groundwater levels, seasonal variations in the groundwater table, including those associated with high riparian water levels, may temporarily decrease the normal capacity and effectiveness of stormwater facilities. In some situations, it would be unreasonably onerous to require stormwater infiltration designs that are guaranteed to always comply with the runoff standards established in this chapter during extreme weather events or temporary high groundwater conditions. Therefore, in areas where seasonal groundwater levels rise to within seven feet of the surface for residential development or nine feet of the surface for nonresidential development, the director may approve stormwater infiltration facilities that may be expected to experience temporarily reduced capacity and/or performance if such facilities are designed and constructed in a manner that ensures any off-site runoff will occur at a rate and volume that will not cause property damage. The applicant shall demonstrate to the satisfaction of the director that: (i) an on-site drainage system cannot practicably be designed and constructed to ensure complete compliance with the requirements of this chapter, and (ii) under the applicant's alternative proposal, resulting stormwater runoff will not cause property damage or

violate applicable state or federal regulations, including without limitation any applicable runoff or discharge standards.

- C. Deviations and Mitigation. Whenever the director authorizes a deviation from the requirements set forth in this chapter, he/she shall enter on the face of the permit the requirement that it imposes to meet the standard and the reasons for allowing or requiring the deviation. Any such decision shall be entirely at the discretion of the director, and nothing in this chapter shall be construed as requiring the director to approve any deviation. The director may condition any such decision upon the imposition of such reasonable mitigation measures as deemed necessary by the director. Without limitation of the forgoing, the director may require an applicant requesting a deviation to execute a recorded covenant indemnifying, protecting, defending, holding harmless the city, its officers, employees, and volunteers, from any and all damages, injuries, claims, costs, expenses, including attorneys fees, resulting from, relating to or otherwise arising out of stormwater runoff from the applicant's property.

(Ord. No. 781, § 2(Exh. A), 7-20-2010; Ord. No. 816, § 6, 10-2-2012)