

For: Monday, May 11, 2015, City Council Meeting

Advance Packet Information

Dated: May 1, 2015

Included in this packet is documentation to support the following Agenda items:

ORDINANCES

1. Ordinance moving Chapter 15.15, Flood Damage Prevention to Brookings
Municipal Code Title 17, Land Development Code. [PWDS, pg. 2]
 - a. Ordinance 15-O-743 [pg. 3]

*Obtain Public Comment Forms and view the agenda and packet information on-line at www.brookings.or.us, or at City Hall. Return completed Public Comment Forms to the City Recorder before the start of meeting or during regular business hours.

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CITY OF BROOKINGS

COUNCIL AGENDA REPORT

Meeting Date: May 11, 2015

Submitted by:



Originating Dept: PWDS

City Manager:



Subject: Moving Brookings Municipal Code Chapter 15.15, Flood Damage Prevention to Title 17, Land Development Code.

Recommended Motion: Adopt Ordinance 15-O-743, deleting Chapter 15.15, Flood Damage Prevention, in its entirety, from Title 15, Buildings and Construction, and adding it to Title 17, Land Development Code of the Brookings Municipal Code.

Financial Impact:

None

Background/Discussion: A majority of jurisdictions in Oregon implement flood plain development regulations through their land use planning process. As they are recognized as land use actions any changes to flood plain development regulations are required to be submitted and approved through Oregon Department of Land Conservation and Development to insure that they remain compliant with the adopted State Goals.

The 2014 State Building Codes have removed all reference to flood plain development to help clarify that this type of development is a land use decision rather than a building codes issue.

Policy Considerations: None

Attachment(s):

- a. Ordinance 15-O-743

IN AND FOR THE CITY OF BROOKINGS
STATE OF OREGON
ORDINANCE 15-O-743

IN THE MATTER OF ORDINANCE 15-O-753, AN ORDINANCE DELETING CHAPTER 15.15, FLOOD DAMAGE PREVENTION, IN ITS ENTIRETY, FROM TITLE 15, BUILDINGS AND CONSTRUCTION, AND ADDING CHAPTER 17.098, FLOOD DAMAGE PREVENTION, TO TITLE 17, LAND DEVELOPMENT CODE, OF THE BROOKINGS MUNICIPAL CODE.

Sections:

- Section 1. Ordinance Identified.
- Section 2. Deletes Chapter 15.15 in its entirety.
- Section 3. Adds Chapter 17.098.

The City of Brookings ordains as follows:

Section 1. Ordinance Identified. This ordinance deletes Chapter 15.15, Flood Damage Prevention, in its entirety, from Title 15, Buildings and Construction, and adds Chapter 17.098, Flood Damage Prevention, to Title 17, Land Development Code of the Brookings Municipal Code.

Section 2. Deletes Chapter 15.15 in its entirety. Chapter 15.15, Flood Damage Prevention, is hereby deleted in its entirety.

Section 3. Adds Chapter 17.098. Chapter 17.098, Flood Damage Prevention, is hereby added to Title 17, Land Development Code, as follows:

Chapter 17.098
FLOOD DAMAGE PREVENTION

Sections:

- 17.098.020 Findings of fact.
- 17.098.030 Statement of purpose.
- 17.098.040 Methods of reducing flood losses.
- 17.098.050 Definitions.
- 17.098.060 Lands to which this chapter applies.
- 17.098.070 Basis for establishing the areas of special flood hazard.
- 17.098.080 Penalties for noncompliance.
- 17.098.090 Abrogation and greater restrictions.
- 17.098.100 Interpretation.
- 17.098.110 Warning and disclaimer of liability.
- 17.098.120 Severability.
- 17.098.130 Development permit required.
- 17.098.140 Application for development permit.
- 17.098.150 Designation of the city manager.
- 17.098.160 Duties and responsibilities of the city manager.
- 17.098.170 Use of other base flood data (in A zones).
- 17.098.180 City manager – Information to be obtained and maintained.
- 17.098.190 City manager – Alteration of watercourses.

- 17.098.200 City manager – Interpretation of FIRM boundaries.
- 17.098.210 Appeal board.
- 17.098.220 Conditions for variances.
- 17.098.230 Provisions for flood hazard reduction.
- 17.098.240 Specific standards.
- 17.098.250 Before regulatory floodway.
- 17.098.260 Floodways.
- 17.098.270 Critical facility.

17.098.010 Statutory authorization.

The state of Oregon has in Article XI, Section 2 of the Oregon Constitution delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the city of Brookings does ordain as set forth in this chapter. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 1.1.]

17.098.020 Findings of fact.

A. The flood hazard areas of the city of Brookings 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.

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard 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. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 1.2.]

17.098.030 Statement of purpose.

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 expenditure of public money and costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally 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, 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 areas of special flood hazard 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; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 1.3.]

17.098.040 Methods of reducing flood losses.

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

- A. Restricting or prohibiting 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;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 1.4.]

17.098.050 Definitions.

Unless specifically defined in this section, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

“Appeal” means a request for a review of the interpretation of any provision of this chapter or a request for a variance.

“Area of special flood hazard” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letter A.

“Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the “100-year flood.” Designation on maps always includes the letter A.

“Basement” means any area of the building having its floor subgrade (below ground level) on all sides.

“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.

“Development” means any manmade 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.

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

“Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal water; and/or
2. The unusual and rapid accumulation of runoff of surface waters from any source.

“Flood Insurance Rate Map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

“Flood Insurance Study” means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary-floodway map, and the water surface elevation of the base flood.

“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.

“Lowest floor” means 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 nonelevation design requirements of this chapter found at BMC 17.098.240(A)(2).

“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 connected to the required utilities. The term “manufactured home” does not include a “recreational vehicle.”

“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.

“New construction” means structures for which the “start of construction” commenced on or after the effective date of the ordinance codified in this chapter.

“Recreational vehicle” means a vehicle which is:

1. Built on a single chassis;
2. Four hundred 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, placement or other improvement was 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 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” means a walled and roofed building including a gas or liquid storage tank that is principally above ground.

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

“Substantial improvement” means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored, before the damage occurred. For the 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 either:

1. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are solely necessary to assure safe living conditions; or
2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

“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.

“Water dependent” means a structure for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations. [Ord. 10-O-670 § 2; Ord. 09-O-634 § 3; Ord. 87-O-412 § 2.0. Formerly 15.15.050 – 15.15.240.]

17.098.060 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the city of Brookings. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 3.1. Formerly 15.15.250.]

17.098.070 Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for Curry County and Incorporated Areas,” dated September 25, 2009, with accompanying Flood Insurance Maps are hereby adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at 898 Elk Drive. The best available information for flood hazard area identification as outlined in BMC 17.098.170 shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under BMC 17.098.170. [Ord. 09-O-648 § 2; Ord. 09-O-634 § 3; Ord. 87-O-412 § 3.2. Formerly 15.15.260.]

17.098.080 Penalties for noncompliance.

As per BMC [1.05.010](#). [Ord. 09-O-634 § 3; Ord. 07-O-588 § 5; Ord. 87-O-412 § 3.3. Formerly 15.15.270.]

17.098.090 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. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 3.4. Formerly 15.15.280.]

17.098.100 Interpretation.

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

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 3.5. Formerly 15.15.290.]

17.098.110 Warning and disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city of Brookings, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 3.6. Formerly 15.15.300.]

17.098.120 Severability.

If any section, clause, sentence, or phrase of this chapter is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this chapter. [Ord. 09-O-634 § 3.]

17.098.130 Development permit required.

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in BMC 17.098.070. The permit shall be for all structures including manufactured homes, as set forth in BMC 17.098.050, Definitions, and for all development including fill and other activities, also as set forth in BMC 17.098.050, Definitions. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.1-1. Formerly 15.15.310.]

17.098.140 Application for development permit.

Application for a development permit shall be made on forms furnished by the building department 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:

- A. Elevation in relation to North American Vertical Datum of 1988 (NAVD 88) of the lowest floor (including basement) of all structures;
- B. Elevation in relation to NAVD 88 to which any structure has been floodproofed;
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in BMC 17.098.240(B); and
- D. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.1-2. Formerly 15.15.320.]

17.098.150 Designation of the city manager.

The city manager or his designee is hereby appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.2. Formerly 15.15.330.]

17.098.160 Duties and responsibilities of the city manager.

Duties of the city manager shall include but not be limited to permit review as follows:

- A. Review all development permits to determine that the permit requirements of this chapter have been satisfied.
- B. 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.
- C. 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 BMC 17.098.260(A) are met. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.3. Formerly 15.15.340(A).]

17.098.170 Use of other base flood data (in A zones).

When base flood elevation data has not been provided (A zones) in accordance with BMC 17.098.070, Basis for establishing the areas of special flood hazard, the local administrator 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 BMC 17.098.240, Specific standards, and BMC 17.098.260, Floodways. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.3. Formerly 15.15.340(B).]

17.098.180 City manager – Information to be obtained and maintained.

- A. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in BMC 17.098.170, obtain and record the actual elevation (in relation to NAVD 88) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
- B. For all new or substantially improved floodproofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in BMC 17.098.170:
 - 1. Verify and record the actual elevation (in relation to NAVD 88) to which the structure was floodproofed; and
 - 2. Maintain the floodproofing certifications required in BMC 17.098.140(C).
- C. Maintain for public inspection all records pertaining to the provisions of this chapter. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.3. Formerly 15.15.340(C).]

17.098.190 City manager – Alteration of watercourses.

A. Notify adjacent communities and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

B. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.3. Formerly 15.15.340(D).]

17.098.200 City manager – Interpretation of FIRM boundaries.

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazard (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 BMC 17.098.210. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.3. Formerly 15.15.340(E).]

17.098.210 Appeal board.

A. The city council shall hear and decide appeals and requests for variances from the requirements of this chapter.

B. The city council shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the city of Brookings in the enforcement or administration of this chapter.

C. Those aggrieved by the decision of the city council, or any taxpayer, may appeal such decision to the district court.

D. In passing upon such applications, the city council 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 floodplain 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 floodwaters 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.

E. Upon consideration of the factors of subsection (D) of this section and the purposes of this chapter, the city council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

F. The building department shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. [Ord. 09-O-634 § 3; Ord. 87-O-412 § 4.4-1. Formerly 15.15.350.]

17.098.220 Conditions for variances.

A. 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 in BMC 17.098.210(D)(1) through (11) have been fully considered. As the lot size increases, the technical justification required for issuing the variance increases.

B. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the Statewide Inventory of Historic Places, without regard to the procedures set forth in this section.

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

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

E. Variances shall only be issued upon:

1. A showing of good and sufficient cause;
2. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
3. 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 as identified in BMC 15.15.210(D), or conflict with existing local laws or ordinances.

F. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to the 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.

G. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subsection (A) of this section, and otherwise complies with BMC 17.098.230(A).

H. 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. 09-O-634 § 3; Ord. 87-O-412 § 4.4-2. Formerly 15.15.360.]

17.098.230 Provisions for flood hazard reduction.

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

A. Anchoring.

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

B. 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.
3. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other utility and 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.

C. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and
3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

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

E. Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source (BMC 17.098.170), 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. 09-O-634 § 3; Ord. 87-O-412 §§ 5.1 – 5.1-5. Formerly 15.15.370 – 15.15.420.]

17.098.240 Specific standards.

In all areas of special flood hazard where base flood elevation data has been provided (Zones A1-30 and AE) as set forth in BMC 17.098.070, Basis for establishing the areas of special flood hazard, or BMC 17.098.170, Use of other base flood data (in A zones), the following provisions are required:

A. Residential Construction.

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more 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 for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
 - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - b. The bottom of all openings shall be no higher than one foot above grade.
 - c. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

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

1. Be floodproofed so that below 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 official as set forth in BMC 17.098.180(B).

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

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 the base flood level).

C. **Manufactured Homes.** For all manufactured dwellings to be placed or substantially improved on sites:

1. The stand shall be a minimum of 12 inches above BFE unless the foundation wall is opened on one side or end so that floodwater cannot be trapped (Manufactured Dwelling Specialty Code, 4-3.1(5));

2. The bottom of the longitudinal chassisframe beam in A zones, and the bottom of the lowest horizontal structural member supporting the dwelling in V zones, shall be a minimum of 12 inches above BFE (see definition of “lowest floor” in the Manufactured Dwelling Specialty Code);

3. The manufactured dwelling shall be anchored to prevent flotation, collapse, or lateral movement during the base flood. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA’s Manufactured Home Installation in Flood Hazard Areas guidebook for anchoring techniques) ([44 CFR 60.3\(c\)\(6\)](#)); and

4. Electrical crossover connections shall be a minimum of 12 inches above BFE (Manufactured Dwelling Specialty Code 6-4.2(1)).

D. **Recreational Vehicles.** Recreational vehicles placed on sites are required to either:

1. Be on the site for fewer than 180 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 subsection (C) of this section and the elevation and anchoring requirements for manufactured homes. [Ord. 10-O-670 § 3; Ord. 09-O-634 § 3; Ord. 06-O-575; Ord. 87-O-412 §§ 5.2 – 5.2.3. Formerly 15.15.430 – 15.15.460.]

17.098.250 Before regulatory floodway.

In areas where 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. [Ord. 09-O-634 § 3.]

17.098.260 Floodways.

Located within areas of special flood hazard established in BMC 17.098.070 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. Except as provided in subsection (C) of this section, prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. If subsection (A) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of BMC 17.098.230, Provisions for flood hazard reduction.

C. Projects for stream habitat restoration may be permitted in the floodway provided:

1. The project qualifies for a Department of the Army, Portland District, Regional General Permit for Stream Habitat Restoration (NWP-2007-1023); and
2. A qualified professional (a registered professional engineer; or staff of NRCS; the county; or fisheries, natural resources, or water resources agencies) has provided a feasibility analysis and certification that the project was designed to keep any rise in 100-year flood levels as close to zero as practically possible given the goals of the project; and
3. No structures would be impacted by a potential rise in flood elevation; and
4. An agreement to monitor the project, correct problems, and ensure that flood carrying capacity remains unchanged is included as part of the local approval. [Ord. 10-O-670 § 4; Ord. 09-O-634 § 3; Ord. 87-O-412 § 5.3. Formerly 15.15.470.]

17.098.270 Critical facility.

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the special flood hazard area (SFHA) (100-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 500-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. 09-O-634 § 3.]

First Reading: _____ Passage: _____
Second Reading: _____ Effective Date: _____
Signed by me in authentication of its passage this _____, day of _____, 2015

ATTEST:

Mayor Ron Hedenskog

City Recorder Joyce Heffington