

**BINGEN MUNICIPAL CODE**

**Chapter 15.16**

**FLOOD HAZARD PROTECTION**

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**Article I STATUTORY AUTHORIZATION AND STATEMENT OF PURPOSE**

**15.16.010 Authority.**

The Legislature of the state of Washington has in RCW Chapter 86.16 delegated the responsibility to local government units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. Therefore, the council of the City of Bingen does ordain the provisions set out in this chapter. (Ord. 337 §1.0, 1984).

**15.16.020 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 methods and provisions designed 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 flood waters;
- 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 floodwater or which may increase flood hazards in other areas. (Ord. 337 §1.2, 1984).

**Article II DEFINITIONS**

**15.16.030 Definitions.**

Unless specifically defined below, 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 it's most reasonable application.

- A. "Area of special flood hazard" means the land in the floodplain within a community subject to a one-percent or greater change of flooding in any given year.

- B. “Base flood” means the flood having a one-percent chance of being equaled or exceeded in any given year.
- C. “Development” means any manmade change to improved or unimproved real estate, including but not limited buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.
- D. “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 waters: and/or
  - 2. The unusual and rapid accumulation of runoff or surface waters from any source.
- E. “Flood Insurance Rate Map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones to the community.
- F.
  - 1. “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, For floodplain management purposes the term “manufactured home” also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. For insurance purposes the term “manufactured home” does not include park trailers, travel trailers, and other similar vehicles.
  - 2. “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.
- G. “New construction” means structures for which the start of construction commenced on or after the effective date of the chapter codified in this chapter.
- H. “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 one hundred eighty 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 foundation or the erection of temporary forms; not 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.

- I. “Structured” means a walled and roofed building or mobile home that is principally above-ground.
- J. “Substantial improvement” means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty 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 the 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 are solely necessary to assure safe living conditions; or
  - 2. Any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.
- K. “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.
  - L. “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. 391 §§2.1, 2.2, 2.3, 3.1 and 3.2, 1989; Ord. 337 §2.0, 1984).

**Article III GENERAL PROVISIONS**

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

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the city. (Ord. 337 §3.1, 1984).

**15.16.041 Penalties for noncompliance.**

No structure or land shall hereafter be constructed, located, extended, converted, or altered after the effective date of the ordinance from which this section derives without full compliance with the terms of this chapter and other applicable regulations. Violation 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) constitutes 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 five hundred 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 from taking such other lawful action as is necessary to prevent or remedy any violation. (Ord. 391 §3.3, 1989).

**15.16.042 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 chapter, easement, covenant, or deed restriction conflict or overlap, whichever imposed the more stringent restrictions shall prevail. (Ord. 391 §3.4, 1989).

**15.16.043 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. 391 §3.5, 1989).

**15.16.044 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 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 city, any office 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. 391 §3.6, 1989).

**15.16.050 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 Rate Map for the Town of Bingen” dated September 24, 1984, with accompanying flood insurance maps, is adopted by reference and declared to be part of this chapter. The Flood Rate Map is on file at Bingen City Hall. (Ord. 391 §2.4, 1989; Ord. 337 §3.2, 1984).

## **Article IV ADMINISTRATION**

### **15.16.060 Development permit required.**

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 15.16.050. The permit shall be for all structures, including mobile homes, as set forth in Section 15.16.030, Definitions, and for all other development, including fill and other activities also as set forth in Section 15.16.030, Definitions. (Ord. 337 §4.1, 1984).

### **15.16.070 City council-Administrative authority.**

The city council is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (Ord. 337 §4.2, 1984).

### **15.16.080 City council-Duties and responsibilities.**

Duties of the city council shall include, but not be limited to:

#### **A. Permit Review.**

1. Review all development permits to determine that the permit requirements of this chapter 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,
3. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the provisions of Section 15.16.165 are met;

#### **B. Use of Other Base Flood Data.**

When base flood elevation data has not been provided in accordance with Section 15.16.050 (Basis for establishing the areas of special flood hazard”), the city, or its designated inspector, shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from federal, state or other source, in order to administer Section 15.16.130, “Specific standards-Generally.”;

#### **C. Information to be Obtained and Maintained.**

1. Where base flood elevation data is provided though the Flood Insurance Rate Map or required as in subsection B, obtain and record the actual (built-in) 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,

2. For all new or substantially improved flood-proofed structures;
  - a. Verify and record the actual elevation (in relation to mean sea level),
  - b. Maintain the flood-proofing certifications required in Section 15.16.150 (C),
3. Maintain for public inspection all records pertaining to the provisions of this chapter;

**D. Alteration of Watercourses.**

1. Notify adjacent communities and the Washington State Department of Ecology prior to any alterations or relocations of a watercourse, and submit evidence of such notification to the Federal Insurance Administration,
2. Require that maintenance is provided within the altered or relocated portion of the watercourse so that flood-carrying capacity is not diminished;

**E. Interpretations 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, Such appeals shall be granted consistent with the standards of Section 60.6 of the rules and regulations of the National Flood Insurance Program (44 CFR 59, etc.). (Ord. 391 §2.5, 1989; Ord. 337 §4.3, 1984).

**Article V PROVISIONS FOR FLOOD HAZARD PROTECTION**

**15.16.090 General standards.**

In all areas of special flood hazards the following standards, as set out in Sections 5.16.100 through 5.16.130, are required. (Ord. 337 §5.1, 1984).

**15.16.091 Review of building permits.**

Where elevation data is not available either through the Flood Insurance Rate Map or from another authoritative source (Section 15.16.080 (B)), 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, ect., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. (Ord. 391 §3.8, 1989).

#### **15.16.100 Anchoring.**

Standards for anchoring are as follows:

- A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- B. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, 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). (Ord. 391 §2.6, 1989: Ord. 337 §5.1-1, 1984).

#### **15.16.110 Construction materials and methods.**

For construction materials and methods:

- A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
- B. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage;
- C. Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding. (Ord. 391 §2.7, 1989: Ord. 337 §5.1-2, 1984).

#### **15.16.120 Utilities.**

Utility standards are as follows:

- A. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- B. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and
- C. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. (Ord. 391 §2.8, 1989: Ord. 337 §5.1-3, 1984).

**15.16.130 Specific standards – Generally.**

In all areas of special flood hazards where base flood elevation data has been determined, Section 15.16.080B (Use of base flood data), the following provisions are required as set out in Sections 15.16.150 through 15.16.160. (Ord. 337 §5.2, 1984).

**15.16.140 Residential construction.**

- A. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation.
- B. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for 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:
  - 1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided:
  - 2. The bottom of all openings shall be no higher than one foot above grade:
  - 3. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. (Ord. 391 §2.9, 1989; Ord. 337 §5.2-1, 1984).

**15.16.141 Subdivision proposals.**

- A. All subdivision proposals shall be consistent with the need to minimize flood damage;
- B. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;;
- C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
- D. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less). (Ord. 391 §3.7, 1989).

**15.16.150 Nonresidential construction.**

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to or above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

- A. Be flood-proofed so that below one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- 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 meetings provisions of this section based on their development and/or review and the structural design, specifications and plans. Such certifications shall be provided to the official set forth in Section 15.16.080B;
- D. Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as described in 15.16.140B;
- E. Applicants 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 one foot above the base flood level will be rated as at the base flood level). (Ord. 391 §2.10, 1989; Ord. 337 §5.2-2, 1984).

**15.16.160 Manufactured homes.**

All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE on the community's FIRM shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is to or above the base flood elevation, and shall be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section 15.16.110. This section applies to manufactured homes to be placed or substantially improved in an expansion to an existing manufactured home park or subdivision. This section does not apply to manufactured homes to be placed or substantially improved in an existing manufactured home park or subdivision except where the repair, reconstruction, or improvement of the streets, utilities and pads equals or exceeds fifty percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced. (Ord. 391 §2.11, 1989; Ord. 338 §5.2-3, 1984).

## **Article VI FLOODWAYS**

### **15.16.165 Floodways**

Located within areas of special flood hazard established in Section 15.16.050 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 unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall 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 repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure, either before the repair, reconstruction, or repair is started, or, if the structure has been damaged and is being restored, before the damage occurred. Work done on structures to comply with existing health, sanitary, or safety codes or to structures identified as historic places shall not be included in the fifty percent.
- C. If subsection A is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V (“Provisions for Flood Hazard Reduction”). (Ord. 391 §3.9, 1989).

## **Article VII ENCROACHMENTS**

### **15.16.166 Encroachments**

The cumulative effect of any proposed development, where combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point. (Ord. 391 §3.10, 1989).

## **Article VIII VARIANCE PROCEDURE**

### **15.16.170 Appeal board.**

- A. The appeal board as established by the city shall hear and decide appeals and requests for variances from the requirements of this chapter.
- B. The appeal board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the local administrator in the enforcement or administration of this chapter.

- C. Those aggrieved by the decision of the appeal board, or any taxpayer, may appeal such decision to the Superior Court.
- D. In passing upon such applications, the appeal board 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 the 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 and the purpose of this chapter the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
- F. The local administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. (Ord. 391 §3.11, 1989).

**15.16.171 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 1 through 11 in Section 15.16.170 (D) have been fully considered. As the lot size increases the technical jurisdiction 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 State 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 Section 15.16.170D, 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 a physical piece of property, 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 flood proofing than watertight or dry-flood-proofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subsection A, and otherwise complies with Sections 15.16.100 and 15.16.110.
- H. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest 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. 391 §3.12, 1989).