

Chapter 13.10 Flood Damage Prevention

Section:

13.10.010	Purpose and Policy
13.10.020	Definitions
13.10.030	Applicability and Areas of Special Flood Hazard
13.10.040	Administration
13.10.050	Provisions for Flood Hazard Reduction – General Standards
13.10.060	Provisions for Flood Hazard Reduction – Specific Standards
13.10.070	Floodways

13.10.010 Purpose and Policy. This chapter is adopted pursuant to ORS 221.916(1) as a regulation designed to protect the public health, safety and general welfare through the regulation of development within floodways and in floodplains. It is the purpose of this chapter to minimize the loss of, and damage to, people and property due to floodwaters, and in particular to:

- A. Protect human life and health;
- B. Minimize expenditure of public money and costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at public expense;
- D. Minimize prolonged business interruptions due to flood events;
- E. Minimize damage to public facilities and services such as the public water, sewer and transportation systems, utilities, gas, electric and telephone service, streets and bridges that are located in areas of special flood hazard;
- F. Help maintain a stable tax base by providing for the sound use and development in areas of special flood hazard and to minimize future flood blighted areas;
- G. Ensure that potential property buyers receive notice that property is in an area of special flood hazard; and
- H. Ensure that those who occupy areas of special flood hazard assume responsibility for their actions.

13.10.020 Definitions: For purposes of this chapter, the following definitions shall apply to the City of Mosier and this chapter:

- A. “Area of special flood hazard” means the land in the flood plain within a community subject to one percent or greater chance of flooding in any given year and so designated on the maps adopted by the City under this chapter.
- B. “Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year, which is also referred to as the “100-year flood,” and so designated on the maps adopted by the City under this chapter.

- C. “Development” means any human caused or constructed change to real property, including construction, building, grading, excavation, mining, dredging, filling, construction of impervious surfaces, or installation of any structure or facility.
- 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” (or “FIRM”) means the official map adopted by the City, on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.
- F. “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.
- G. “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.
- H. “Lowest floor” means the lowest floor of the lowest enclosed area, including a basement area of a structure. 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 an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of section (5.2-1(2)) of this chapter.
- I. “Manufactured structure” means a structure, transportable in one or more sections, that is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to utilities. For purposes of floodplain management, the term “manufactured structure” also includes recreational vehicles, travel trailers and similar vehicles placed on a site for more than 180 consecutive days. For insurance purposes, the term “manufactured structure” does not include recreational vehicles, travel trailers and similar vehicles.
- J. “New construction” means structures for which the “start of construction” began on or after January 25, 1989 (the enactment date of Ordinance No. 104).
- K. “Start of construction” includes substantial improvement, and means the date the building permit was issued for a structure, provided that the actual start of

construction, repair, reconstruction, placement or improvement was within 180 days of the permit issuance date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of a slab, foundation or footings, the installation of piles, construction of columns or any work beyond excavation. The actual start also means the placement of a manufactured structure on a foundation. Permanent construction does not include land preparation, such as clearing, grading or filling, nor does it include the installation of streets or walkways, excavation for a basement, footings, piers or foundation or the erection of temporary forms.

- L. “Structure” means a walled and roofed building, including a gas or liquid storage tank that is principally above ground.
- M. “Substantial improvement” means any repair, reconstruction or improvement of a structure, the cost of which is equal to at least 50% 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 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 begins, regardless of whether that alteration affects the external dimensions of the structure.

13.10.030 Applicability and Areas of Special Flood Hazard.

- A. Applicability. This chapter applies to all areas of Special Flood Hazard in the City as designated on the official maps adopted by the City under this chapter.
- B. Basis for Establishing an Area 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 the City of Mosier*, dated February 17, 1989 and the accompanying Flood Insurance Maps are hereby adopted by this reference as the City’s official Flood Insurance Maps. Copies of the Study and Maps shall be maintained for inspection and copying at City Hall during normal business hours.

13.10.040 Administration.

- A. Development Permit Required. No development, as defined in Section 13.10.020, is allowed in the an any area of Special Flood Hazard as established in Section 13.10.030(B), without a development permit first being obtained pursuant to this Chapter.

- B. Designation of Local Administrator. The City Engineer is hereby designated to be the Local Administrator to administer and enforce the requirements of this Chapter by reviewing, granting or denying development permit applications in accordance with the requirements of this Chapter.
- C. Duties and Responsibilities of the Local Administrator. The duties of the Local Administrator shall include the following:
1. Permit Review. The Local Administrator shall be responsible for the following permit review functions:
 - a. Review all development permit applications to determine whether the permit requirements of this Chapter have been satisfied.
 - b. Review all development permit applications and development proposals to determine whether all necessary permits have been obtained from all federal, state and local agencies with jurisdiction over the development.
 - c. Review all development permit applications and development proposals to determine whether the development is located in the Floodway. If any aspect of the development is located in the Floodway, the Local Administrator shall assure that the encroachment provisions of Section 13.10.070 are met.
 2. Use of Other Base Flood Data. When base flood elevation data has not been provided or established in accordance with Section 13.10.030(B) (Basis for Establishing the Areas of Special Flood Hazard), the Local Administrator shall obtain, review and reasonably interpret any base flood elevation and floodway data available from a federal, state or other source in order to administer this Chapter.
 3. Information to be Obtained and Maintained. The Local Administrator shall obtain and maintain the following information:
 - a. Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 13.10.040(C)(2), obtain and 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 new structure includes a basement.
 - b. For all new or substantially improved flood proofed structures, the Administrator shall verify and record the actual elevation (in relation to mean sea level) and maintain flood proofing certifications required in Section 13.10.060.

4. Alteration of Watercourses. In the event that the Local Administrator approves the alteration of any watercourses, the Administrator shall follow the following procedures:
 - a. Notify Wasco County Planning Department and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse and submit evidence of that notification to the Federal Insurance Administration.
 - b. Require that maintenance be provided within the altered or relocated portion of the watercourse so that flood carrying capacity is not diminished.
5. Interpretation of FIRM Boundaries. The Local Administrator shall, where needed, make interpretations as to exact locations of the boundaries of the areas of special flood hazards, *e.g.*, where there appears to be a conflict between a mapped boundary and actual field conditions. Any person contesting the location of a boundary shall be given a reasonable opportunity to appeal the Administrator's interpretation. Any such appeal shall be granted consistent with the standards of Section 60.6 of the rules and regulations of the National Flood Insurance Program (44 CFR 59-76).

13.10.050 Provisions for Flood Hazard Reduction – General Standards. The following standards apply to development in areas of Special Flood hazard:

- 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 structures shall be anchored to prevent flotation, collapse or lateral movement of the structure and shall also 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 in accordance with FEMA's *Manufactured Home Installation in Flood Hazard Areas* guidebook.
- 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, HVAC equipment and other service facilities shall be designed and/or other elevated or located so as to prevent

water from entering or accumulating in the components during flood conditions.

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

D. Subdivisions.

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 flood damage.
3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.
4. Where base flood elevation data has not been provided or is not available from an authoritative source, the subdivision applicant shall provide base flood elevation data from a suitably qualified professional or reliable source.

E. Building Permit Review. Where elevation data is not available either through the Flood Insurance study or from another authoritative source, building permit applications shall assure and demonstrate that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical flood data, high water marks, photographs of past flood events, etc. Failure to elevate at least two feet above grade in these zones may result in higher flood insurance rates.

13.10.060 Provisions for Flood Hazard Reduction – Specific Standards. In all Special Flood Hazard areas where base flood elevation has been provided as set forth in Section 13.10.030 (Basis for Establishing an Area of Special Flood Hazard), the following provisions shall apply:

A. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or

above the base flood elevation. 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 shall 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 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.

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 to level of the base flood elevation or together with attendant utility and sanitary facilities shall:

1. Be flood proofed 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 Section 13.10.040(C).
4. Nonresidential structures that are elevated and not flood proofed shall meet the same standards for space below the lowest floor as described in Section 13.10.060(B)(2).
5. 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 constructed to the base flood level will be rated as one foot below that level.

C. Manufactured structures. All manufactured structures to be placed or substantially improved within Zones A1-30, AH and AE shall be elevated on a permanent foundation so that the lowest floor of the manufactured structure is at

or above the base flood elevation to be securely anchored to an adequately anchored foundation system in accordance with the requirements of Section 13.10.050(A)(2).

13.10.070 Floodways. Floodways are located within areas of Special Flood Hazard established in Section 13.10.030(B). Since the floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris, potential projectiles and erosion potential, the following provisions apply to activities in the floodway:

- A. All encroachments are prohibited, including fill, new construction, substantial improvements and all other development unless the applicant obtains certification by a registered professional engineer or other suitably qualified professional demonstrating that encroachments will not result in any increase in flood levels during the base flood discharge.
- B. If the preceding subsection is satisfied, any new construction so certified shall comply with all applicable flood hazard reduction provisions in Sections 13.10.050 and 13.10.060 (Provisions for Flood Hazard Reduction).