

ORDINANCE NO. 2024-01

Amendments to Skamania County Code Title 15, Chapter 15.18 Flood Damage Prevention

WHEREAS, Ordinance 1989-05 established Skamania County Code (SCC) Chapter 15.18, Ordinance 2024-01 amends 15.18 to include the FEMA Flood Insurance Study (FIS), and Flood Insurance Rate Map (FIRM) that will become effective May 22nd, 2024; and

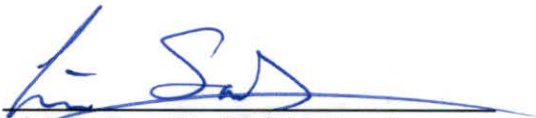
WHEREAS, the Skamania County Board of Commissioners finds that it is in the public's interest to amend Chapter 15.18 as recommended by the Public Works Director to maintain Skamania County's participation in the Nation Flood Insurance Program.

NOW, THEREFORE, BE IT HEREBY ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS that Skamania County Code Title 15, Chapter 15.18, is hereby amended as proposed by FEMA, see attached amended SCC 15.18.

REVIEWED IN REGULAR SESSION this 19th day of March, 2024, and set for public hearing on the 16th day of April, 2024, at 5:30 p.m.



ATTEST:


Lisa Sackos, Clerk of the Board

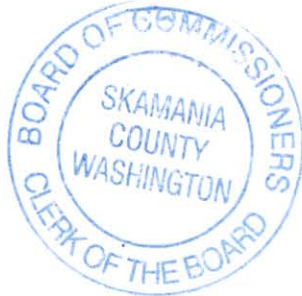
**BOARD OF COMMISSIONERS
SKAMANIA COUNTY, WASHINGTON**


Asa Leckie, Chairman

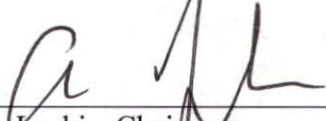

T.W. Lannen, Commissioner


Richard Mahar, Commissioner

ORDINANCE NO. 2024-01 is hereby DULY PASSED AND ADOPTED INTO LAW this 14th day of May, 2024.



**BOARD OF COMMISSIONERS
SKAMANIA COUNTY, WASHINGTON**



Asa Leckie, Chairman



T.W. Lannen, Commissioner

ATTEST:




Lisa Sackos, Clerk of the Board



Richard Mahat, Commissioner

Approved as to Form Only:



Adam Kick, Prosecuting Attorney

Chapter 15.18

FLOOD DAMAGE PREVENTION

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15.18.010 Statutory authorization.

The legislature of the state of Washington has 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 board of commissioners of Skamania County, Washington does ordain as set forth in this chapter. (Ord. 1989-05 § 1.1)

15.18.020 Findings of fact.

- A. The flood hazard areas of Skamania County 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 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. (Ord. 1989-05 § 1.2)

15.18.030 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 specified 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. 1989-05 § 1.3)

15.18.040 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, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas. (Ord. 1989-05 § 1.4)

15.18.050 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.

***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.**

1. "Appeal" means a request for a review of the administrator's interpretation of any provision of this chapter.
2. "Area of shallow flooding" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist, the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.
3. "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 letters A or V.

***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.

4. "Critical facility" means a facility for which even a slight chance of flood might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use, or store hazardous materials or hazardous waste.
5. "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 located within the area of special flood hazard.
6. "Flood" or "flooding".
 - 1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - The overflow of inland or tidal waters.
 - The unusual and rapid accumulation or runoff of surface waters from any source.
 - 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).

7. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administrator has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

***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.

***Flood proofing:** 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. Flood proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

8. "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 a designated height.

***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:

- By an approved state program as determined by the Secretary of the Interior, or
 - Directly by the Secretary of the Interior in states without approved programs.
9. "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 non-elevation design requirements of this chapter found at Section [15.18.170\(A\)\(2\)](#).
10. "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.
11. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land under the same ownership divided into three 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.

12. "New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter and includes any subsequent improvements to such structures.

***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.

13. "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; 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.
14. "Structure" means a walled and roofed building, including a gas or liquid storage tank that is principally above ground as well as a manufactured home.
15. ***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.
16. "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 before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage;" regardless of the actual repair work performed. b. The term does not, however, include either:
- i. 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
 - ii. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure".
17. ***Variance:** A grant of relief by a community from the terms of a floodplain management regulation.
18. "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. 1989-05 § 2.0)

15.18.060 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of Skamania County. (Ord. 1989-05 § 3.1)

15.18.070 Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study for Skamania County and Incorporated Areas," dated May 22, 2024, with accompanying Flood Insurance Maps is hereby adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at the Skamania County Building Department. (Ord. 1989-05 § 3.2)

15.18.080 Penalties for noncompliance.

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. 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) 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 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 Skamania County board of commissioners from taking such other lawful action as is necessary to prevent or remedy any violation. (Ord. 1989-05 § 3.3)

15.18.090 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. 1989-05 § 3.4)

15.18.100 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. 1989-05 § 3.5)

15.18.110 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 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 Skamania County, 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. 1989-05 § 3.6)

15.18.115 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.

15.18.120 Development permit—Required— Application.

- A. **Required.** A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section [15.18.070](#). The permit shall be for all structures including manufactured homes, as set forth in the Section [15.18.050](#), and for all development including fill and other activities, also as set forth in Section [15.18.050](#).
- B. **Application.** Application for a development permit shall be made on forms furnished by the administrator 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;
 - 2. Elevation in relation to mean sea level to which any structure has been floodproofed;

3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section [15.18.170\(B\)](#); and
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development. (Ord. 1989-05 § 4.1)

15.18.130 Administrator—Designated.

The Skamania County building official is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (Ord. 1989-05 § 4.2)

15.18.140 Administrator—Duties and responsibilities.

Duties of the administrator 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 [15.18.180](#) are met;
4. Review all development permits to ensure the site is reasonably safe from flooding.

B. Use of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with Section [15.18.070](#), the 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 Sections [15.18.170](#) and [15.18.180](#).

C. Information to be Obtained and Maintained.

1. Where base flood elevation data is provided through the Flood Insurance Study or required as in subsection B of this section, obtain and record the actual (as-built) 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 floodproofed structures:
 - a. Verify and record the actual elevation (in relation to mean sea level), and
 - b. Maintain the floodproofing certifications required in Section [15.18.120\(B\)\(3\)](#).
3. Maintain for public inspection all records pertaining to the provisions of this chapter.

D. Alteration of Watercourses.

1. Notify adjacent communities, the Washington Department of Fish and Wildlife, and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administrator;
2. Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.

E. 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 Section [15.18.150](#) (Ord. 1989-05 § 4.3)

15.18.150 Appeal procedure.

Any party aggrieved by any final order of the administrator shall have the right to appeal to the Skamania County board of commissioners by filing a written notice of appeal with said board within fifteen calendar days from the date of said final order of the administrator. 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 59-76](#)). (Ord. 1989-05 § 4.4)

15.18.155 Variances

The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the Skamania County to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the Base Flood Elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

A. Requirements for Variances

1. Variances shall only be issued:

- a. Upon 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;
- b. 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;
- c. Upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
- d. Upon a showing of good and sufficient cause;
- e. Upon a determination that failure to grant the variance would result in exceptional hardship to the applicant;

- f. Upon a showing that the use cannot perform its intended purpose unless it is located or carried out in close proximity to water. This includes only facilities defined in Section [15.18.050](#) of this ordinance in the definition of "Functionally Dependent Use."
2. Variances shall not be issued within any floodway if any increase in flood levels during the base flood discharge would result.
3. Generally, variances may be issued 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 BFE, provided the procedures of Sections [15.18.120](#) and [15.18.160](#) of this ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

B. Variance Criteria

1. In considering variance applications, the Skamania County Board of Commissioners shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:
 - a. The danger that materials may be swept onto other lands to the injury of others;
 - b. The danger to life and property due to flooding or erosion damage;
 - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - d. The importance of the services provided by the proposed facility to the community;
 - e. The necessity to the facility of a waterfront location, where applicable;
 - f. The availability of alternative locations for the proposed use, which are not subject to flooding or erosion damage;
 - g. The compatibility of the proposed use with existing and anticipated development;
 - h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

- i. The safety of access to the property in time of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and,
- k. 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, water system, and streets and bridge.

C. Additional Requirements for the Issuance of a Variance:

1. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:
 - a. The issuance of a variance to construct a structure below the BFE will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
 - b. Such construction below the BFE increases risks to life and property.
2. The Floodplain Administrator shall maintain a record of all variance actions, including justification for their issuance.
3. The Floodplain Administrator shall condition the variance as needed to ensure that the requirements and criteria of this chapter are met.
4. Variances as interpreted in the NFIP 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 flood elevations should be quite rare.

15.18.160 General standards.

In all areas of special flood hazards, 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 resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy.
2. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and 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 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 flood waters into the system;
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters 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 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 fifty 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 (Section [15.18.140\(B\)](#)), 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 judgement and includes use of historical data, high watermarks, photographs of past flooding, etc., where available. The minimum elevation in these areas will be at least two feet above grade (Ord. 1989-05 § 5.1)

15.18.170 Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section [15.18.070](#), or Section [15.18.140\(B\)](#), 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 to or above the base flood elevation.
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or if used solely for parking, access or storage shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Design 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.
- d. Crawlspace
 1. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 2. Flood velocities must be less than 5 feet-per second.
 3. Flood openings must be installed that allow for the automatic entry and exit of floodwaters.
 4. The portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE.
 5. Any building utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.
 6. The interior grade of a crawlspace below the BFE must not be more than 2 feet below the lowest adjacent exterior grade (LAG).
 7. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed 4 feet at any point.

8. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace.

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

- a. Be floodproofed 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 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 [15.18.140\(C\)\(2\)](#).
- d. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (A)(2) of this section.
- e. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot above the floodproofed level (e.g. a building floodproofed to or above the base flood level will be rated as at the base flood level).

C. Critical Facility.

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the base floodplain. Construction of new critical facilities shall be permissible within the base floodplain if no feasible alternative site is available. Critical facilities constructed within the base floodplain shall have the lowest floor elevated to three feet or more above the level of the base flood elevation at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base floodplain shall be provided to all critical facilities to the extent possible.

D. 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 be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section [15.18.160\(a\)\(2\)](#). This paragraph applies to manufactured homes to be placed or substantially improved in an expansion to an existing manufactured home park or subdivision. This paragraph 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. 1989-05 § 5.2)

E. Recreational Vehicles.

1. Recreational vehicles placed on sites are required to either:
2. Be on the site for fewer than 180 consecutive days,
3. Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
4. Meet the standards for manufactured homes in (D) above.

15.18.180 Floodways.

Located within areas of special flood hazard established in Section [15.18.070](#) 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. Prohibit encroachments, including fill, new construction, substantial improvements, and other development 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:

1. Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and
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, reconstruction, or repair is started, or
 - b. If the structure has been damaged, and is being restored, before the damage occurred. Work done on structures to correct existing violations of 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 to structures identified as historic places shall not be included in the fifty percent.
3. Replacement of Farmhouses in Floodway.

Repairs, reconstruction, replacement, or improvements to existing farmhouse structures located in designated floodways and that are located on lands designated as agricultural lands of long-term commercial significance under RCW 36.70A.170 may be permitted subject to the following:

- a. The new farmhouse is a replacement for an existing farmhouse on the same farm site;
- b. There is no potential building site for a replacement farmhouse on the same farm outside the designated floodway;
- c. Repairs, reconstruction, or improvements to a farmhouse shall not increase the total square footage of encroachment of the existing farmhouse;
- d. A replacement farmhouse shall not exceed the total square footage of encroachment of the farmhouse it is replacing;
- e. A farmhouse being replaced shall be removed, in its entirety, including foundation, from the floodway within ninety days after occupancy of a new farmhouse;
- f. For substantial improvements and replacement farmhouses, the elevation of the lowest floor of the improvement and farmhouse respectively, including basement, is a minimum of one foot higher than the BFE;

- g. New and replacement water supply systems are designed to eliminate or minimize infiltration of flood waters into the system;
 - h. New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of flood water into the system and discharge from the system into the flood waters; and
 - i. All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.
- C. If subsection (A) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Sections [15.18.160](#) through [15.18.190](#) of this chapter. (Ord. 1989-05 § 5.3)

15.18.190 Encroachments.

In areas with BFEs (but a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of 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 point. (Ord. 1989-05 § 5.4)