

**Chapter 173-158 WAC  
FLOOD PLAIN MANAGEMENT**

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**WAC**

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**DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER**

173-158-060	Additional state requirements. [Statutory Authority: RCW 86.16.061. WSR 89-07-022 and 90-06-059 (Order 88-57 and 88-57A), § 173-158-060, filed 3/7/89 and 3/6/90, effective 4/6/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-060, filed 5/4/88.] Repealed by WSR 90-21-089, filed 10/19/90, effective 11/19/90. Statutory Authority: RCW 86.16.061.
173-158-100	Local compliance schedule. [Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-100, filed 5/4/88.] Repealed by WSR 90-21-089, filed 10/19/90, effective 11/19/90. Statutory Authority: RCW 86.16.061.
173-158-110	State assumption of regulatory authority. [Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-110, filed 5/4/88.] Repealed by WSR 90-21-089, filed 10/19/90, effective 11/19/90. Statutory Authority: RCW 86.16.061.

**WAC 173-158-010 Authority.** This chapter is adopted pursuant to chapter 86.16 RCW as amended during the 1989 legislative session.

Note: Copies of all statutes, regulations, and other documents cited or referred to in this chapter may be viewed at the Department of Ecology, Mailstop PV-11, Olympia, Washington 98504.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-010, filed 10/19/90, effective 11/19/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-010, filed 5/4/88.]

**WAC 173-158-020 Purpose.** Chapter 86.16 RCW establishes state-wide authority for flood plain management through the adoption and administration by local governments of regulatory programs which are compliant with the minimum standards of the National Flood Insurance Program (NFIP). Chapter 86.16 RCW also directs the department of ecology to establish minimum state requirements for flood plain management which equal the NFIP minimum standards; to provide technical assistance and information to local governments related to administration of their flood plain management ordinances and the NFIP; to provide assistance to local governments in identifying the location of the one hundred year (base) flood plain; and allows for the issuance of regulatory orders.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-020, filed 10/19/90, effective 11/19/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-020, filed 5/4/88.]

**WAC 173-158-030 Definitions.** For the purposes of this chapter the following definitions shall apply:

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year. Also referred to as the "one hundred-year flood."

"Best available information" means in the absence of official flood insurance rate map data, communities can use data from other federal, state, or other sources provided this data has either been generated using technically defensible methods or is based on reasonable historical analysis and experience.

"Designated floodway" means the regulatory floodway which has been delineated on the flood insurance rate map (FIRM) or the flood boundary/floodway map (FBFM) of a community's flood insurance study and is included in the community's flood damage prevention ordinance.

"Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, extraction or drilling operations or storage of equipment or materials.

"Dwelling" means one or more rooms designed for occupancy by a person or family for living and sleeping purposes, containing kitchen facilities and rooms with internal accessibility, for use solely by the dwelling's occupants.

"Encroachment" means any alteration or development within the regulatory floodway that would result in any increase in flood levels during the occurrence of the base flood discharge.

"Existing farmhouse" means a farmhouse which was built prior to the adoption of the local flood insurance rate map and local ordinances implementing the NFIP.

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

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

- The overflow of inland or tidal waters; and/or
- 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.

"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.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the local ordinance.

"Person" means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or any agency of the state or local governmental unit however designated.

"Replacement residential structure" means a residential structure built as a substitute for a previously existing residential structure of equivalent use and size.

"Residential structure" means a place in which one lives: Dwelling.

"Special flood hazard area" means an area subject to a base or one hundred-year flood; areas of special flood hazard are shown on a flood hazard boundary map or flood insurance rate map as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, or V.

"Structure" means a walled and roofed building, including a gas or liquid storage tank that is principally above ground. Manufactured homes are considered structures.

"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, or 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.

"Substantial damage" means damage of any origin sustained by a structure where the cost of restoring the structure to its before damage condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction, rehabilitation, addition, or other 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 that have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

- 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 or building official and are the minimum necessary to assure safe living conditions; or
- Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

"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.

"Wetlands" means lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands have one or more of the following three attributes: At least periodically, the land supports predominantly hydrophytes; the substrate is predominantly undrained hydric soil; and the substrate is nonsoils and is saturated with water or covered by shallow water at some time during the growing season of each year.

[Statutory Authority: Chapter 86.16 RCW. WSR 02-15-093 (Order 00-26), § 173-158-030, filed 7/16/02, effective 8/16/02. Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-030, filed 10/19/90, effective 11/19/90; WSR 89-07-022 and 90-06-059 (Order 88-57 and 88-57A), § 173-158-030, filed 3/7/89 and 3/6/90, effective 4/6/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-030, filed 5/4/88.]

**WAC 173-158-040 Regulatory area.** The minimum regulatory area for state and local flood plain management regulations shall be those areas subject to a base (one hundred year) flood and designated as special flood hazard areas on the most recent maps provided by the Federal Emergency Management Agency (FEMA) for the National Flood Insurance Program (NFIP). Best available information shall be used if these maps are not available or sufficient as determined by the Federal Emergency Management Agency.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-040, filed 10/19/90, effective 11/19/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-040, filed 5/4/88.]

**WAC 173-158-045 Technical assistance.** The department of ecology shall provide technical assistance to local governments in the administration of their flood plain management ordinances. The department shall also assist counties, cities, and towns in identifying the location of the one hundred-year flood plain, and petitioning the federal government to alter its designations of where the one hundred-year flood plain is located if the federally recognized location of the one hundred-year flood plain is found to be inaccurate.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-045, filed 10/19/90, effective 11/19/90.]

**WAC 173-158-050 Criteria for land management and use.** The standards and definitions contained in 44 C.F.R., Parts 59 and 60 for the National Flood Insurance Program are adopted as the minimum state standards by reference.

[Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-050, filed 5/4/88.]

**WAC 173-158-064 Additional state requirements.** State requirements may be established for specific flood plains that exceed the minimum federal requirements of the NFIP, in accordance with RCW 86.16.031(8) and the following:

(1) A written request must be submitted to the department of ecology by the affected county, city, or town to initiate the process.

(2) The location of the one hundred-year flood plain must be re-examined by the affected community and the department of ecology, and has been certified by the department as being accurate for the affected areas.

(3) The department of ecology shall negotiate with the affected community to determine the content of proposed additional requirements.

(4) The department of ecology shall notify the public of related public meetings and public hearings.

(5) The department of ecology must find that the proposed increased requirements are necessary due to local circumstances and general public safety.

(6) The area where the additional requirements apply is to be clearly identified.

(7) Additional state requirements shall be established as needed in accordance with the required state rule-making procedures.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-064, filed 10/19/90, effective 11/19/90.]

**WAC 173-158-070 Additional floodway requirements.** The following additional state requirements are established in accordance with RCW 86.16.041.

(1) Special flood hazard areas with designated floodways. In addition to those NFIP requirements for designated floodways, communities with designated floodways shall restrict land uses within such areas to include the prohibition of construction or reconstruction of residential structures except for: (a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and (b) repairs, reconstruction, or improvements to a structure the cost of which does not exceed fifty percent of the market value of the structure either (i) before the repair, reconstruction, or improvement is started, or (ii) 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 which have been identified by the local code enforcement or building official and are the minimum necessary to assure safe living conditions shall not be included in the fifty percent determination in (b) of this subsection. A residential dwelling located partially within a designated floodway will be considered as totally within a designated floodway and must comply with this chapter. However, the floodway prohibition in this subsection does not apply to existing farmhouses in designated floodways that meet the provisions of WAC 173-158-075, or to residential dwellings other than farmhouses that meet the depth and velocity and erosion analysis provisions of WAC 173-158-076, or to structures identified as historical places.

(2) Special flood hazard areas without designated floodways. When a regulatory floodway for a stream has not been designated, the community may require that applicants for new construction and substantial improvements reasonably utilize the best available information from a federal, state, or other source to consider the cumulative effect of existing, proposed, and anticipated future development and determine that the increase in the water surface elevation of the base flood will not be more than one foot at any point in the community. Building and development near streams without a designated floodway shall comply with the requirements of 44 C.F.R. 60.3 (b)(3) and (4), and (c)(10) of the NFIP regulations.

[Statutory Authority: Chapter 86.16 RCW. WSR 02-15-093 (Order 00-26), § 173-158-070, filed 7/16/02, effective 8/16/02. Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-070, filed 10/19/90, effective 11/19/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-070, filed 5/4/88.]

**WAC 173-158-075 Existing farmhouse standards.** Repairs, reconstruction, replacement, or improvements to existing farmhouse structures located in designated floodways and which are located on lands designated as agricultural lands of long-term commercial significance under RCW 36.70A.170 shall be permitted subject to the following:

(1) The new farmhouse is a replacement for an existing farmhouse on the same farm site;

(2) There is no potential safe building site for a replacement farmhouse on the same farm site outside the designated floodway or the location requires close proximity to other structures in the farm operation in order to maintain the integrity and operational viability of the farm; in no case shall a replacement be located into an area with higher flood hazards in terms of depths, velocities and erosion;

(3) Repairs, reconstruction, or improvements to a farmhouse shall not increase the total square footage of encroachment of the existing farmhouse;

(4) A replacement farmhouse shall not exceed the total square footage of encroachment of the structure it is replacing;

(5) A farmhouse being replaced shall be removed, in its entirety, including foundation, from the floodway within ninety days after occupancy of a new farmhouse;

(6) For substantial improvements, and replacement farmhouses, the elevation of the lowest floor of the improvement and farmhouse respectively, including basement, is a minimum one foot higher than the base flood elevation;

(7) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood waters into the system;

(8) 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

(9) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

[Statutory Authority: Chapter 86.16 RCW. WSR 02-15-093 (Order 00-26), § 173-158-075, filed 7/16/02, effective 8/16/02.]

**WAC 173-158-076 Substantially damaged residential dwellings other than farmhouses.** For all substantially damaged residential structures, other than farmhouses, located in a designated floodway, the department, at the request of the local government, is authorized to assess the risk of harm to life and property posed by the specific conditions of the floodway. Based upon scientific analysis of depth, velocity, flood-related erosion and debris load potential, the department may exercise best professional judgment in recommending to the local permitting authority repair, replacement or relocation of a substantially damaged structure. The property owner shall be responsible for submitting to local government any information necessary to complete the assessment required by this section when such information is not otherwise available.

(1) Recommendation to repair or replace a substantially damaged residential structure located in the regulatory floodway shall be based on the flood characteristics at the site. In areas of the floodway that are subject to shallow and low velocity flooding, low flood-related erosion potential, and adequate flood warning time to ensure evacuation, the department may recommend the replacement or repair of the damaged structure. Any substantially damaged residential structure located in the regulatory floodway in a high risk zone based on the flood characteristics will not be recommended to be repaired or replaced. Flood warning times must be twelve hours or greater, except if the local government demonstrates that it has a flood warning system

and/or emergency plan in operation. For purposes of this paragraph flood characteristics must include:

(a) Flood depths can not exceed more than three feet; flood velocities cannot exceed more than three feet per second.

(b) No evidence of flood-related erosion. Flood erosion will be determined by location of the project site in relationship to channel migration boundaries adopted by the local government. Absent channel migration boundaries, flood erosion will be determined by evidence of existing overflow channels and bank erosion.

At the request of local government, the department will prepare a report of findings and recommendations for local government concurrence on repair or replacement of substantially damaged residential structures located in the regulatory floodway.

Without a recommendation from the department for the repair or replacement of a substantially damaged residential structure located in the regulatory floodway, no repair or replacement is allowed per WAC 173-158-070(1).

(2) Before the repair, replacement, or reconstruction is started, all requirements of the National Flood Insurance Program, the state requirements adopted pursuant to RCW 86.16.031(8), and all applicable local regulations must be satisfied. In addition the following conditions must be met:

(a) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway.

(b) A replacement residential structure is a residential structure built as a substitute for a previously existing residential structure of equivalent use and size.

(c) Repairs or reconstruction or replacement of a residential structure shall not increase the total square footage of floodway encroachment.

(d) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the base flood elevation.

(e) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood water into the system.

(f) 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.

(g) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

[Statutory Authority: Chapter 86.16 RCW. WSR 02-15-093 (Order 00-26), § 173-158-076, filed 7/16/02, effective 8/16/02.]

**WAC 173-158-080 Wetlands management.** Wetlands are areas of great natural productivity and hydrological utility, providing natural flood control, flood desynchronization, and flow stabilization of rivers and streams. The unrestricted use and development of wetlands will destroy many of these beneficial qualities which directly affect human health and safety during flood events. The piecemeal alteration and destruction of wetlands through draining, dredging, filling and other means has an adverse cumulative impact on their ability to reduce flood damages.

Communities should, to the maximum extent possible, seek to avoid the short and long term adverse impacts associated with the destruction or modification of wetlands, especially those activities which limit or disrupt the ability of the wetland to ameliorate flooding impacts. Proposals for development within special flood hazard areas (base flood plains) should be reviewed for their possible impacts on wetlands located within the flood plain. Communities should ensure that development activities in or around wetlands do not negatively affect public safety, health, and welfare by disrupting the wetlands' ability to reduce flood and storm hazards.

Communities may request technical assistance from the department of ecology in identifying wetland areas. Existing wetland map information from the National Wetlands Inventory (NWI) can be used in conjunction with the community's FIRM to prepare an overlay zone indicating critical wetland areas deserving special attention. Local wetlands management strategies can also be developed which will preserve these valuable areas.

[Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-080, filed 5/4/88.]

**WAC 173-158-084 Submittal of local ordinances.** Communities shall submit to the department of ecology and to the federal Emergency Management Agency (FEMA) regional office newly adopted or amended flood damage prevention ordinances to incorporate the requirements of chapter 86.16 RCW and this chapter. Such ordinances or amendments shall take effect thirty days from filing with the department unless the department disapproves such ordinance or amendment, in writing, within that time period. The department may disapprove any ordinance or amendment which does not comply with the requirements of the NFIP, or WAC 173-158-040, 173-158-064, or 173-158-070. The department will provide guidance and assistance to communities in preparation and review of draft ordinances upon request by the community.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-084, filed 10/19/90, effective 11/19/90.]

**WAC 173-158-086 Local option to exceed minimum requirements.** In accordance with RCW 86.16.045 a county, city, or town may adopt flood plain management ordinances or requirements that exceed the minimum federal requirements of the National Flood Insurance Program and the state requirements of this chapter without following the procedures provided in RCW 86.16.031(8) and WAC 173-158-064.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-086, filed 10/19/90, effective 11/19/90.]

**WAC 173-158-090 Penalties and enforcement.** (1) The attorney general or the attorney for the local government shall bring such injunctive, declaratory, or other actions as are necessary to ensure compliance with this chapter.

(2) Any person who fails to comply with this chapter shall also be subject to a civil penalty not to exceed one thousand dollars for



each violation. Each violation or each day of noncompliance shall constitute a separate violation.

(3) The penalty provided for in this section shall be imposed by a notice in writing, either by certified mail with return receipt requested or by personal service, to the person incurring the same from the department or local government, describing the violation with reasonable particularity and ordering the act or acts constituting the violation or violations to cease and desist or, in appropriate cases, requiring necessary corrective action to be taken within a specific and reasonable time.

(4) Any penalty imposed pursuant to this section by the department shall be subject to review by the pollution control hearings board. Any penalty imposed pursuant to this section by local government shall be subject to review by the local government legislative authority. Any penalty jointly imposed by the department and local government shall be appealed to the pollution control hearings board.

[Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-090, filed 5/4/88.]

**WAC 173-158-120 Variances.** The variance procedure contained in 44 C.F.R., Part 60.6 and the local flood damage prevention ordinance shall apply to this chapter unless an activity or use is expressly prohibited therein.

[Statutory Authority: RCW 86.16.061. WSR 90-21-089, § 173-158-120, filed 10/19/90, effective 11/19/90. Statutory Authority: Chapter 86.16 RCW. WSR 88-10-058 (Order 88-6), § 173-158-120, filed 5/4/88.]