

Chapter 16.25

FLOODPLAIN MANAGEMENT

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Chapter 86.12 RCW: Flood control by counties.

Chapter 508-60 WAC: Flood control zones.

Chapter 16.05 CCC: Building code.

Chapter 19.15 Critical Areas Ordinance.

16.25.010 Title

The ordinance codified in this chapter shall be cited as the “Cowlitz County Floodplain Management Ordinance.”

16.25.020 Purpose

It is the purpose of this chapter to promote the public health, safety, and general welfare by provisions designed:

- A.** To implement the Washington State Flood Control Zone Permit Program pursuant to the requirements of RCW 86.16.080 and WAC 508-60;
- B.** To regulate floodplain development;
- C.** To minimize the need for emergency rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D.** To minimize expenditure of public money on costly flood control projects;
- 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 minimize prolonged business interruptions;
- G.** 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;
- H.** To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions;
- I.** To coordinate administration of various county ordinances and policies relating to development in floodplain areas;
- J.** To fully implement floodplain management requirements of the Federal Emergency Management Agency to qualify existing and proposed homes and businesses for participation in the regular national flood insurance program.

16.25.030 Definitions

For the purposes of this chapter, the following terms shall be defined as follows, and all other words used shall carry their customary meanings:

- A.** “Accessory structure” means a building or structure which is subordinate and incidental to that of the main structure or building on the same lot or parcel. Accessory structures are less than 200 square feet in size and non-habitable in use.
- B.** “Base Flood” means a flood event having a one percent (1%) chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on flood insurance map(s) always include the letters A or V.
- C.** “Basement” means any area of the building having its floor sub-grade (below ground level) on all sides.

D. “Channel Migration Zone (CMZ)” means the area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings. The “Channel Migration Zone” does not include areas that lie behind an arterial road, a public road serving as a sole access route, as state or federal highway or a railroad and may exclude areas that lie behind a lawfully established flood protection facility that is maintained by existing programs for public maintenance consistent with the designation and classification criteria specified by public rule.

E. “Department” means the Cowlitz County Department of Building and Planning.

F. “Development” means any human-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining dredging, filling, grading paving, excavation or drilling operations or storage of equipment or materials, and all works.

G. “Director” means the Director of the Department of Building and Planning, or a designated delegate.

H. “Excavation” means the removal of earth material either by hand held tools or with use of machinery.

I. “Elevation Certificate” is an administrative tool of the National Flood Insurance Program (NFIP). It is used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR_F).

J. “Filling” means the act of placing fill material including temporary stockpiling of fill material.

K. “Fill material” means a deposit of earth or other natural or manmade material placed by artificial means.

L. “Flood or Flooding” means a temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

M. “Flood Insurance Rate Maps (FIRM)” means the official map(s), including amendments or revisions, issued by the Federal Insurance Administration of the Federal Emergency Management Agency that delineates the areas of regulatory flood and the risk premium zones applicable to the community.

N. “Floodplain” means the total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

O. “Flood protection elevation” means the elevation that is two (2) feet above the base flood elevation.

P. “Flood resistant material” means materials designed to be resistant to the impacts associated with flooding and defined and described in detail in the Federal Emergency Management Agency’s Technical Bulletin #2-93, 1993, and Federal Emergency Management Agency publication FEMA-348, Protecting Building Utilities from Flood Damage.

Q. “Floodway” means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one (1) foot.

R. “Floodway fringe” means the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than one (1) foot at any point.

S “Functionally dependent use” means 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 loading or unloading cargo or passengers, and ship building or repair facilities, but does not include long-term storage or related manufacturing facilities.

T. “Grading” means an excavating and/or filling of the earth’s surface or combination thereof.

U. “Hazardous substances” means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or 173-303-100.

V. “Hydraulic analysis” means documentation using standard engineering practices based upon the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Floodway Boundary and Floodway Map (FBFM) and the results tabulated in the community’s Flood Insurance Study (FIS) or other applicable numerical models meeting the minimum requirements of the National Flood Insurance Program.

W. “Licensed Surveyors” – Washington State licensed Land Surveyors can only complete Elevation Certificates.

X. “Lowest floor” means the lowest floor of the lowest enclosed area including basements. An unfinished or flood-resistant enclosure that is usable solely for parking of vehicles (e.g., attached garage), building access, or storage, and that cannot be enclosed as a basement, 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 floodproofing design requirements of this chapter.

Y. “Manufactured home” means a structure transportable in one or more sections and that is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities.

Z. “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.

AA. “Person” means any individual, firm, partnership, association, corporation, or public entity.

AB. “Qualified Professional” means a person with experience, minimum Bachelor’s degree in education, and/or professional degrees and training pertaining to frequently flooded areas as described below:

“Hydrogeologist” means a licensed geologist in the State of Washington with a specialty license in hydrogeology meeting the requirements of WAC 308-15-057. The licensed hydrogeologist shall have demonstrated experience analyzing hydrogeologic hazards and preparing reports for the relevant type of hazard.

“Fluvial Geomorphologist” means a person who has a bachelor’s degree in earth sciences from an accredited college or university with applicable course work in fluvial geomorphology and at least five years of professional experience in fluvial geomorphology.

“Hydraulics Engineer” means a person who has a bachelor’s degree in civil engineering from an accredited college or university and at least five (5) years of experience as practicing hydraulics engineer, and is a registered professional engineer in the State of Washington (meeting the requirements of RCW 18.43.040). The licensed engineer shall have demonstrated experience conducting, analyzing and preparing reports for hydraulic investigations.

AC. “Recreation Vehicle” means a vehicle that is:

1. Built on a single chassis;
2. Designed to be self-propelled or permanently towable by a light duty truck; and
3. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use;
4. Fully licensed;
5. Road ready (wheels remain on the vehicle at all times); and
6. Also may be defined as a travel trailer.

AD. “Regulatory flood” - See “Base Flood.”

AE. “Structure” means any piece of work artificially built up or composed of parts joined together in some definite manner, including a house, manufactured home, apartment, factory, garage, or other improvement having walls attached to or affixed upon the land and situated principally above the ground.

AF. “Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to it’s before damaged condition would equal or exceed thirty percent (30%) of the market value of the structure before the damage occurred.

AG. “Substantial improvement” means any repair, reconstruction or improvement of a structure, the cost of which over any 12-month period equals or exceeds thirty percent (30%) of the market value of the structure either:

- 1) Before the improvement or repair is started; or,
- 2) If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition “substantial Improvement” is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term can exclude:

- 1) Any project for improvement of a structure to correct pre-cited existing violations of state or local health, sanitary, or safety code specifications which have been previously identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or

- 2) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

AH. “Unavoidable” means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

AI. “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.

AJ. “Works” are any dam, wall, wharf, embankment, levee, dike, pile, bridge, road, abutments, excavation, structure, subdivision, channel alteration, culvert, fill, earth movement or removal, mining, building, aboveground or underground hazardous material storage, or other similar development attached to or occurring upon real property.

16.25.040 Designation of Frequently Flooded Areas

A. Frequently Flooded Areas. Frequently flooded areas may include lands outside of Federal Emergency Management Agency defined floodplains and shall include:

1. Areas Identified on the Flood Insurance Map(s). Those areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled The Flood Insurance Study (FIS) for Cowlitz County dated December 20, 2001, with an accompanying flood insurance map(s) and any revisions thereto. The Flood Insurance Study and accompanying map(s) are hereby adopted by reference, declared part of this chapter, and are available for public review at the county.

2. Areas Identified by the Director. Those areas of special flood hazard identified by the Director based on review of base flood elevation and floodway data available from federal, state, county, or other valid sources when base flood elevation data has not been provided from the Federal Insurance Administration [A and V zones of the flood insurance map(s)].

B. Use of Additional Information. The Director may use additional flood information, such as provided by the Army Corps of Engineers, that is more restrictive or detailed than that provided in the Flood Insurance Study conducted by the Federal Emergency Management Agency to designate frequently flooded areas. The flood insurance maps are to be used as a guide for the county, project applicants and/or property owners, and the public and should be considered a minimum designation of frequently flooded areas. As flood insurance maps may be continuously updated as areas are reexamined or new areas are identified, newer and more accurate information for flood hazard area identification shall be the basis for regulation, including photographs of past flooding, location of restrictive floodways, maps showing future build-out conditions, maps that show riparian habitat areas, or similar information.

C. Flood Elevation Data. When base flood elevation data is not available (A and V zones), the Director 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 this chapter.

D. AE and A1-30 Zones with Base Flood Elevations but No Floodways. In areas with base flood elevations (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 the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

E. Maintenance of Records. Where base flood elevation data is provided through the Flood Insurance Study or required through CCC 16.25.040 D of this chapter, the Director shall obtain and record the 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. The Director shall also maintain for public inspection all records of floodplain hazards, certificates of flood proofing, and flood elevation data.

16.25.050 Compliance

No person shall undertake or cause the undertaking of any development in the floodplain without first obtaining a floodplain management permit from the Department, except:

A. No permit is required before undertaking development in any portion of the floodplain covered by a declaration of emergency issued by the Board of County Commissioners, during the time such declaration is in effect; provided once the emergency has abated, the person or agency undertaking such action, will be required to apply for a Floodplain Permit which would have been required, absent an emergency pursuant to this Title. The person or agency has 60 days from the abatement of the emergency to apply for a Floodplain Permit.

B. No permit is required during an emergency for the construction of emergency works necessary to minimize or eliminate imminent flood threats to life or property; provided once the emergency has abated, the person or agency undertaking such action, will be required to apply for a Floodplain Permit which would have been required, absent an emergency pursuant to this Title. The person or agency has 60 days from the abatement of the emergency to apply for a Floodplain Permit.

C. No permit is required for maintenance activities, provided such activities conform to the standards of this chapter. "Maintenance activities" include but are not limited to repaving of roads, cleaning culverts or bridges, maintenance of dikes and stormwater facilities, like kind replacement of piles or dolphins, maintenance dredging activities (but excluding placement of dredge spoils), etc.

D. No permit is required for expansion on the landward side of existing dikes or levees when it is determined through the Critical Areas Determination process that the affected area does not contain designated wetland, geologically hazardous or frequently flooded critical areas and does not adversely affect fish and wildlife habitat. If the Critical Areas Determination is inconclusive, a critical area assessment may be required.

16.25.060 Application

A. Floodplain Permit. A floodplain permit is required if it is determined that the proposed development is located within areas identified as frequently flooded. Application for a Floodplain Permit shall at a minimum include the following:

1. Master Application. A completed master application, signed by the applicant and the property owner if different from the applicant, a vicinity map and any supplemental information required by the Director:

2. Site Plan. Site plan for the development proposal showing:

- a. North arrow;
- b. Property line dimensions;

- c. Setback dimensions to all existing and proposed development to property boundaries, water bodies, critical areas and other development or alterations;
- d. Locations and dimensions of all existing and proposed development or alterations;
- e. Locations of public and private roads, sewer and water lines, wells, utilities, easements, water sources, lakes and springs, drainage facilities, on-site sewage disposal and drainfield areas, within the property boundary;
- f. Fill placement and/or removal areas and quantity if known;
 - i. Storage of temporary or permanent materials; and
 - ii. Clearing limits.
- g. Name of the water body;
- h. Location of the 100-year floodplain, floodway, and base flood elevation (BFE);
- i. National Floodplain Insurance Rate Map (FIRM) Community and Panel number and year the study was completed;
- j. Location of the ordinary high water mark if known;
- k. Lowest adjacent grade elevation of the development site prior to development activities;
- l. Other critical areas, buffers, and shoreline areas within 300’;
- m. Location of the channel migration zone where applicable.

3. Frequently Flooded Assessment. The Frequently Flooded Assessment(s) shall be adequate for the Director to evaluate the development proposal and all probable significant potential adverse impacts to critical areas regulated by this chapter, unless the Director finds that such technical assessments are not necessary for the reason that adequate factual information already exists at the disposal of the Director to facilitate such evaluation. The county shall provide or advise the applicant of any existing technical information that may be pertinent to their property. Technical assessments shall be attached to or incorporated into any environmental checklist required for the proposal.

4. Elevation Certificate. The applicant shall have an elevation certificate(s) completed by a land surveyor licensed in the State of Washington, and shall submit them to Cowlitz County during each appropriate phase of development. The elevation certificate(s) shall record the elevation of:

- a. Lowest adjacent grade of the development site prior to development;
- b. The lowest floor, at under floor inspection; and
- c. Final as-built construction elevations.

5. Preparation by a Qualified Professional. A frequently flooded areas assessment may be required. If required, a qualified professional shall prepare the assessment that has experience in preparing flood hazard assessments.

6. The assessment shall be prepared in accordance with the minimum requirements listed the above and the following site and proposal related information at a minimum:

- a. All areas of a special flood hazard area, as indicated on the flood insurance map(s) within two hundred (200) feet of the project area;
- b. Discussion on how the development activities and/or mitigation proposal meets performance standards;
- c. The names of the persons preparing the assessment and conducting any field work and the date of any fieldwork performed on the site;
- d. Identification and characterization of all critical areas, wetlands, water bodies, and buffers adjacent to the proposed project area;
- e. A statement specifying the accuracy of the report, and all assumptions made and relied upon;
- f. An assessment of the probable cumulative impacts to other critical areas resulting from development of the site and the proposed development;
- g. An analysis of site development alternatives including a no development alternative; and
- h. The Director as warranted may require additional studies.

7. Information Regarding Other Critical Areas. Potential impacts to wetlands, fish and wildlife habitat, and other critical areas shall be addressed in accordance with the applicable sections of this chapter.

16.25.070 Fees

The fees and charges for processing an application, appeals, and other administrative actions under this chapter shall be from time to time established by resolution by the Board.

16.25.080 Performance Standards – General Requirements

All development within the floodplain shall comply with the following standards:

A. Development Permit(s). Development permit(s), including a Floodplain permit, shall be obtained before development occurs or a new use is commenced within a frequently flooded area.

B. All Other Necessary Permits. The Director may verify that all necessary permits have been obtained from federal, state, and local governmental agencies.

C. Altered or Relocated Waterways. All altered or relocated waterways within a floodplain shall be maintained so the flood-carrying capacity is not diminished. Certification by a qualified professional person shall be provided, unless exempted by the Director, documenting that the new watercourse will not threaten the public safety or be injurious to property.

D. Development Impacts. No development shall be allowed that, as determined by the Director, threatens to: (1) adversely restrict, alter, or increase the flow of floodwaters in the floodway prescribed in the Flood Insurance Study (FIS); (2) adversely affect the efficiency or capacity of the floodway or the integrity or stability of flood protection facilities; or (3) increase water surface elevation or the location of the floodway during the regulatory flood.

E. Areas without Base Flood Elevation Data. Where base flood elevation data is not available (Federal Emergency Management Agency Floodplain Insurance Rate Map (FIRM) A and V flood zones) the structure shall be elevated, at a minimum, three (3) feet above existing grade or flood elevation established by the Director.

F. Areas within the 100-Year Floodplain. A hydraulics analysis demonstrating that proposed development will not increase the water surface elevation of the base flood more than one foot at any point within the community may be required for any new construction, substantial improvements, or other development, such as buildings, bridges, road embankments, or fills within Zones A, A1-30, and AE on the Federal Emergency Management Agency FIRM.

G. Anchoring.

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
2. All manufactured homes must 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.

H. 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.

I. 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.
4. Utility facilities which carry liquid petroleum products or any other hazardous substance as defined in WAC 173-303 may be permitted in Frequently Flooded Areas only when demonstrated by a qualified professional that the design, location, and monitoring of the proposed facility will not cause contaminants to enter the protected resource.

J. Fill and Grading. Fill and grading may occur after a determination from a qualified professional indicates that the fill or grading will not block side channels or inhibit channel migration. A hydraulic analysis may be required.

K. Subdivision, Short Subdivision and Manufactured Home Parks Shall:

1. Be designed to minimize or eliminate flood damage and impacts to floodplain functions and values. Public utilities and facilities that are installed as part of such proposals, such as sewer, gas, electrical, and water systems, shall be located and constructed to also minimize flood damage and impacts to floodplain functions and values. Subdivisions, short subdivisions and manufactured home parks should be designed using natural features of the landscape.

2. Have adequate drainage to reduce exposure to flood hazards.

3. Show the 100-year floodplain, floodway, and channel migration zone on the preliminary and final plat and binding site plan and designate such areas as “no build,” when applicable.

4. Provide new lots meeting the following:

a. All lots created through subdivision or short subdivision shall have adequate building space outside the floodway.

b. Building envelopes including on site septic waste water systems and wellheads shall be located at the highest elevation on the site providing all other state and local regulations are met.

5. Where detailed base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated by the applicant through a qualified professional for all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) which contain at least fifty (50) lots or five (5) acres. The base flood elevation data shall be generated based on a detailed hydraulic analysis.

L. Construction in Floodways.

1. Encroachments, including new construction, substantial improvements, fill, and other development, are prohibited within designated floodways, except as provided for by CCC 16.25.090.F.

2. Recreational vehicles and travel trailers may be placed within the floodway provided the unit is not larger than eight feet wide by 35 feet long, has quick couplers on all utilities (including sewage, water, and electrical) and the tires and wheels are left on to enable the vehicle to be removed. Recreational vehicles and travel trailers shall be fully licensed and road ready.

3. All development intended for human habitation is prohibited from locating in a floodway, except for:

a. Repairs, maintenance, reconstruction, or improvements to a structure that do not increase the ground floor area; and

b. Repairs, reconstruction, or improvements to a structure, for which the cost does not exceed thirty percent (30%) of the market value of the structure either:

i. Before the repair or reconstruction is started, or

ii. If the structure has been damaged and is being restored, before the damage occurred.

iii. Improvement to a structure to correct 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 ensure safe living

conditions or to structures identified as historic places may be excluded from the thirty percent (30%).

- c. Recreational vehicles and travel trailers may be placed within the floodway provided they are:
 - i. Fully licensed and ready for highway use on its wheels or jacking system;
 - ii. Attached to the site only by quick couplers on all utilities (including sewage, water, and electrical);
 - iii. Attached to quick disconnect security devices;
 - iv. Not encumbered by permanently attached additions;
 - v. Not larger than eight feet wide by 35 feet long.
- d. Where development is proposed in an area in which the precise location of the floodway is not known (such as in unnumbered A zones shown on the flood insurance rate maps), the Director may require that such development be reasonably safe from flooding. Factors to be considered in making such determination include but are not limited to historical data, high water marks, photographs of past flooding, intended use of the development, etc. Failure to elevate structures at least two feet above grade in such areas may result in higher insurance rates. If consideration of available data indicates the location is within a floodway, the provisions of CCC 16.25.080.M shall apply.

M. All development within frequently flooded areas shall comply with the Cowlitz County Building Code CCC 16.05 or hereafter amended.

16.25.090 Performance Standards – Specific Development Standards

The following standards apply to all development proposed within the floodplain:

A. Residential Construction.

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to at least two (2) feet above the base flood elevation except on the Cowlitz and Toutle Rivers where it shall be elevated to at least three (3) feet above the base flood elevation.

2. Fully enclosed areas below the lowest floor that are subject to flooding shall only be allowed when designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- a. A minimum of two (2) openings having a total net area of not less than one (1) 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 (1) foot above grade; and
- 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. Interior grade of crawl space(s) shall be no lower than the lowest adjacent grade.

B. Manufactured Homes. All manufactured homes to be placed or substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated two (2) feet or more above the base flood elevation, except on the Cowlitz and Toutle Rivers where it shall be elevated to at least three (3) feet above the base flood elevation, and be securely anchored to resist flotation, collapse, and lateral movement. Floodproofing and ground anchors shall be installed pursuant to the following standards:

1. Any single-wide manufactured home constructed before 1976 shall provide over-the-top ties at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, and manufactured homes less than 50 feet long require one additional tie per side.

2. On all singlewide manufactured homes constructed after 1976 and on all doublewide manufactured homes, frame ties shall be provided at each corner of the home with five additional ties per side at intermediate points, and manufactured homes less than 50 feet long require four additional ties per side.

3. Each component of all anchoring systems shall be capable of carrying a force of 4,800 pounds.

C. Recreational Vehicles Shall:

1. Be on the site for fewer than one hundred eighty (180) consecutive days; or

2. Be fully licensed and ready for highway use on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions.

3. Meet the permit requirements of for all proposed construction and other developments including the placement of manufactured homes and the elevation and anchoring requirements for manufactured homes.

D. 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 at least two (2) feet above the level of the regulatory flood elevation, except on the Cowlitz and Toutle Rivers where it shall be elevated to at least three (3) feet above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

1. Be floodproofed up to two (2)/three (3) feet above the base flood level, based on location, so that 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. Such certification shall be provided to the Director prior to approval of a permit under this chapter.

4. Nonresidential structures that are elevated but not floodproofed must meet the same standards for space below the lowest floor as described in subsection (A)(2) of this section.

E. Accessory Structures.

1. Accessory structures shall not be used for human habitation.
2. Accessory structures shall be designed to have low flood damage potential.
3. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters.
4. Accessory structures shall be firmly anchored to prevent flotation that may result in damage to other structures.
5. Service facilities such as electrical and heating equipment shall be elevated above the regulatory flood elevation or floodproofed to prevent damage by floodwaters.
6. Accessory structures are prohibited in the Floodway.

F. Bridges, Culverts, and Docks.

1. All bridges shall be designed and constructed to provide for the passage of regulatory flood flows. The total design of the bridge, its road approaches and associated utilities and bank stabilization shall allow for flood flows to pass under or around the bridge structure without resulting in an increase in flood levels during the occurrence of the base flood discharge (no net rise).
2. New bridges, culverts, or docks must comply with CCC 16.25.080.F.
3. The minimum floodway width shall be maintained. When center supports are necessary, the structure shall be designed to withstand floodwater forces with debris hangup and shall not result in more than one (1) foot increased flood depth.
4. Culverts shall be sized to adequately pass regulatory flood flows. The culvert and road shall allow floodwaters to pass through, over or around the road without causing adverse flood impacts. Culverts should meet Washington State Department of Fish and Wildlife fish passage requirements.
5. Docks, piles, bridge abutments shall be designed to withstand regulatory flood flows and the additional hydraulic forces associated with debris hangup on the structure during a flood.

G. Alteration of Watercourses. Alteration of natural watercourses shall be avoided. If unavoidable and determined to be outside of the frequently flooded area, the activity is addressed/regulated under the Critical Areas Ordinance CCC 19.15.130.E.3 through E.6 of the Fish and Wildlife Habitat chapter. If alterations occur within frequently flooded areas, all provisions of this chapter and those of Critical Areas Ordinance CCC 19.15.130.E.3 through E.6 apply.

H. Critical Facilities. Critical facilities are prohibited from frequently flooded areas to prevent damage to such facilities, to avoid costs that will be incurred by the public, and to maintain functionality of such facilities during flood events. If such a prohibition is unreasonable, an allowance for critical facilities in frequently flooded areas with the following specific conditions:

1. Construction of new critical facilities shall be permissible within frequently flooded areas if no practical alternative site is available.

2. Critical facilities constructed within frequently flooded areas shall have the lowest floor elevated three (3) feet or more above the level of the base flood elevation (100-year flood).

3. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters.

4. Access routes to new critical facility development shall be at a minimum:

a. Elevated to or above the level of the base flood elevation on the development site; and

b. Provide an emergency and evacuation plan with two ingress/egress access routes as part of their development plan proposal.

I. Wells Used for Potable Water. Water wells are prohibited in the floodway.

J. On-Site Sewage Disposal Systems. On-site sewage disposal systems are prohibited in the floodway.

K. Fish Enhancement, Watershed Restoration Projects or Plans. Projects or Plans in compliance with WAC 173-27-040 shall be exempt from this chapter.

16.25.100 Administration

A. The Director shall have the responsibility for administering and implementing this code.

B. Notification.

1. In reviewing an application, the Department shall coordinate with all agencies of jurisdiction. Public notice may be posted on or near the subject site and written notification may be mailed to all abutting property owners of record. Public notice shall be required when the proposed development could adversely affect adjacent properties. Any notice shall state the deadline for submitting responses to the Department.

2. When a proposed project involves any alteration or relocation of a watercourse, the Director shall notify communities and counties that would be affected, and the Department of Ecology. Evidence of such notification shall be submitted to the Federal Insurance Administration of the Federal Emergency Management Agency.

3. When development is proposed in the floodway common to the boundary of Cowlitz and Clark Counties, the Director shall submit the permit application to the appropriate agencies of Clark County for review and comment.

C. If the Director finds that the proposed development is consistent with this ordinance and RCW 86.16, the Director shall approve the application. The Director may subject the permit approval to such reasonable conditions as may be necessary to assure conformance with provisions and purposes of this chapter. Issuance of a permit pursuant to this chapter does not relieve the applicant from compliance with all applicable county, state and federal regulations.

D. All development shall comply with all conditions of the permit and this code. The Department shall have the authority to inspect developments for consistency with the permits and conditions thereto and this code. If any development or activity is contrary to the permit, the conditions of the permit, this code, or RCW 86.16 or the regulations thereunder, the Department may suspend or revoke the permit and issue necessary orders to ensure compliance with applicable legal

requirements. The Department shall verify and record “as-built” elevations of development and structures requiring permits pursuant to this code.

16.25.110 Variance

A. The Director may consider applications for variances from the requirements of this chapter, subject to the provisions of this section.

B. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use; provided, that (1) the criteria of subsections C, D, and E of this section are met; (2) the structure or other development is protected by measures that minimize flood damages during the regulatory flood; and (3) the development will create no additional threats to public safety.

C. Variances Shall Only be Listed 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; and
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, or conflict with RCW 86.16 or other laws, regulations, or ordinances.

D. The Following Requirements and Guidelines Apply to the Granting Of Variances:

1. 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.
2. Variances shall not be issued within a floodway if any increase in flood levels during the base flood discharge would result.
3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
4. 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; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
5. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined will have low damage potential, complies with all other variance criteria and otherwise complies with CCC 16.25.080.D and E.
6. Any applicant to whom a variance from the lowest floor elevation standards is granted shall be given written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

E. Criteria. When acting on a variance request, the Director shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:

1. The danger to life and property due to flooding, erosion damage, or materials swept onto other lands during flood events;
2. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
3. The importance of the services provided by the proposed use to the community;
4. The necessity to the proposed use of a waterfront location, where applicable, and the availability of alternative locations for the proposed use that are not subject to flooding or erosion damage;
5. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
6. The safety or access to the property in times of flood for ordinary and emergency vehicles;
7. The expected height, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
8. The cost 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.

F. Conditions. The Director may attach such reasonable conditions to the granting of the variance as may be appropriate to further the purposes of this code. Such conditions may include a requirement that the applicant record a document reciting the granting of the variance and providing notice of flood hazards.

G. Reporting. The Director shall report any variances to the Federal Insurance Director of the Federal Emergency Management Agency and the Department of Ecology upon request.

16.25.120 Appeal

A. A person aggrieved by the issuance or denial of a permit or variance may appeal such action to the Hearing Examiner, appointed pursuant to CCC 18.10.340, as amended. Any such appeal shall be filed in writing with the Department of Building and Planning within 20 calendar days of the issuance of the Director's decision, with the first day being the day after the decision is issued. The appeal shall specify the reasons therefor. The Director shall provide the Hearing Examiner with the findings and documentation relating to the decision being appealed. The Hearing Examiner, following a de novo hearing, shall affirm, modify or reverse the Director's decision. The appellant carries the burden of proof on appeal.

B. Upon the filing of an appeal with appropriate fee, the Director shall set the public hearing before the Hearing Examiner. If the appeal is filed 20 calendar days or more before the Hearing Examiner's regularly scheduled monthly meeting, he/she shall hear the appeal at that meeting as set by the Director. For appeals filed within 19 calendar days of the regularly scheduled monthly meeting, the Hearing Examiner shall hear the appeal in the subsequent month.

C. Notice of the time, date and place of the hearing shall be sent to the appellant and the permittee by first class mail prior to the public hearing. Legal notice of the hearing shall be

published in a newspaper of general circulation and the subject property shall be posted with said notice not less than 10 calendar days prior to the public hearing.

D. Within 10 calendar days after the public hearing, the Hearing Examiner shall issue a written decision, including findings of fact on which his/her decision is based. Such written decision shall be available to the appellant and the public upon request. Appeals of Hearing Examiner decisions shall be to a court of competent jurisdiction, pursuant to the Land Use Petition Act, Chapter 347, Washington Laws, 1995.

16.25.130 Violations – Penalties

It is a civil infraction for any person to violate this chapter or assist in the violation of this chapter. Violations are subject to the provisions of CCC 2.06. Any violation is a public nuisance. Each day a violation exists is a separate violation. Payment of any penalty imposed for a violation does not relieve a person from the duty to comply with this chapter.

16.25.140 Severability

Should any section, clause, or provision of this chapter be declared invalid, the same shall not affect the validity of this chapter as a whole or any part thereof other than the part so declared invalid.

16.25.150 Conflict

Where other county regulations or ordinances are in conflict with this chapter, the more restrictive regulation shall apply.

16.25.160 Disclaimer

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes such as log jams or bridge openings restricted by debris. This chapter does not imply that land outside the areas of the floodplain, or uses permitted within such areas, will be free from flooding or flood damages. The lawful application of this chapter shall not create any liability for any damages on the part of Cowlitz County, or any officer or employee thereof, or the Federal Insurance Administration of the Federal Emergency Management.