

ORDINANCE NO. 109-89

AN ORDINANCE RELATING TO FLOOD DAMAGE PREVENTION;
PROVIDING FOR THE ISSUANCE OF DEVELOPMENT
PERMITS; PROVIDING FOR THE ADMINISTRATION AND
ENFORCEMENT OF A FLOOD PLAIN MANAGEMENT PROGRAM;
CREATING A VARIANCE PROCEDURE; ESTABLISHING
PENALTIES FOR VIOLATIONS; AND ESTABLISHING AN
EFFECTIVE DATE.

WHEREAS, the Board of County Commissioners of Wahkiakum County, Washington, does find and declare that it is necessary for the protection and preservation of the public peace, health, safety, and general welfare in regard to control of the flood plain within Wahkiakum County, that certain rules, regulations, laws and conditions be established under the police power of the County, and pursuant to the laws of the United States of America and of the State of Washington; and

WHEREAS, Wahkiakum County desires to establish eligibility in the National Flood Insurance Program and in order to do so must meet the requirements of Section 1910.3(b) of the Federal Insurance Administration Regulations;

NOW, THEREFORE:

IT IS HEREBY ORDAINED BY THE BOARD OF WAHAKIAKUM COUNTY COMMISSIONERS, as follows:

ORDINANCE NO. 142-06

**AN ORDINANCE RELATING TO FLOOD DAMAGE
PREVENTION; AMENDING ORDINANCE NO. 109-89;
AND ESTABLISHING AN EFFECTIVE DATE**

WHEREAS, the Board of County Commissioners of Wahkiakum County, Washington, does find and declare that it is necessary for the protection and preservation of the public peace, health, safety, and general welfare in regard to control of the floodplain within Wahkiakum County, that certain rules, regulations, laws and conditions be established under the police power of the County, and pursuant to the laws of the United States of America and of the State of Washington; and

WHEREAS, on the 9th day of May, 1989, the Board of County Commissioners did adopt Ordinance No. 109-89, which Ordinance established a comprehensive flood damage prevention and flood plain management program, which program established the County's eligibility to participate in the National Flood Insurance Program; and

WHEREAS, since 1989, changes have occurred in the federal regulations governing the National Flood Insurance Program; and

WHEREAS, to maintain the County's eligibility to participate in the National Flood Insurance Program, the County is required to make certain amendments to Ordinance No. 109-89; and

WHEREAS, Wahkiakum County desires to continue eligibility in the National Flood Insurance Program;

NOW, THEREFORE:

**IT IS HEREBY ORDAINED BY THE BOARD OF WAHAKIYAKUM COUNTY
COMMISSIONERS,** as follows:

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Section 1.0

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES

1.1 STATUTORY AUTHORIZATION

The Legislature of the State of Washington has by virtue of RCW 36.32.120(7) delegated the responsibility to counties to adopt regulations designed to promote the public health, safety and general welfare of their citizenry. Additionally, Chapter 86.16 of the Revised Code of Washington recognizes the authority of counties to enact ordinances relating to flood plain management.

1.2 FINDINGS OF FACT

- (1) The flood hazard areas of Wahkiakum 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.
- (2) 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 flood proofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

1.3 STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) 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;
- (6) 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 light areas;
- (7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and,
- (8) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
- (9) To fully implement flood plain 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.

1.4 METHODS OF REDUCING FLOOD LOSSES.

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- (1) Restricting or prohibit 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;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

SECTION 2.0

DEFINITIONS

(Ord. 142-06 Section 1)

Unless specifically defined below, words or phrases used in this Ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this Ordinance its most reasonable application.

Accessory Structures: Any structure whose use is supplemental to the primary land use or structure, including but not limited to utility pads, pumphouses, santi-cans, storage sheds, etc.

Administrator: means the Wahkiakum County Public Works Director or his/her designee.

Appeal: means a request for a review of the administrator's interpretation of any provision of this Ordinance or a request for a variance.

Area of Shallow Flooding: means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). AO zones have base flood depths that range from one to three feet above that natural ground; 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; AH indicates ponding, and is shown with standard base flood elevations.**

Area of Special Flood Hazard: means the land in the flood plain within a community subject to a one percent or greater change of flooding in any given year. **Designation on maps always includes the letters A or V. Commonly referred to as the "100-year flood" or "base flood" area.**

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"). Designated on Flood Insurance Rate Maps by the letters A or V.

Basement: means any area of the building having its floor sub-grade (below ground level) on all sides.

Best Available Information: means in the absence of official flood insurance rate map data, communities can use data from 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.

Board: means Board of County Commissioners of Wahkiakum County.

Breakaway Wall: means a wall that is not part of the structural support of the building and its intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Coastal High Hazard Area: means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The area is designated on

the FIRM as Zone V1-30, VE or V.

Critical Facility: means a facility for which even a slight change of flooding might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire, and emergency response installations, and installations which produce, use, or store hazardous materials or hazardous wastes.

Cumulative Substantial Damage: means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

Designation Floodway: means the regulatory floodway which has been delineated on the flood insurance rate map (FIRM) or the flood boundary/floodway maps (FBRM) of a community's flood insurance study and is included in this Ordinance.

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 located within the area of special flood hazard.

Elevation Certificate: means the official form (FEMA Form 81-31) used to track development provide elevation information necessary to ensure compliance with community floodplain management ordinances, and determine the proper insurance premium rate with Section B completed by Community Officials.

Elevated Building: means for insurance purposes, a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

Existing Manufactured Home Park or Subdivision: means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the adopted floodplain management regulations.

Expansion to an Existing Manufactured Home Park or Subdivision: means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or Flooding: means a general and temporary condition of partial or complete inundation of normally dry land area from:

- (1) The overflow of inland or tidal waters; and/or
- (2) The unusual and rapid accumulation of runoff of surface waters from any source.

Flood Damage Potential: means the potential for damage to development located within the flood control zone from floodwaters or debris contained within floodwaters and/or the damage caused by the displacement of development located within the floodplain.

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

Flood Insurance Study: means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map (FBFM), and the water surface elevation of the base flood.

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.

Increased Cost of Compliance: A flood insurance claim payment up to \$30,000 directly to a property owner for the cost to comply with floodplain management regulations after a direct physical loss caused by a flood. Eligibility for an ICC claim can be through a single instance of “substantial damage” or as a result of a “cumulative substantial damage.” (more information can be found in FEMA ICC Manual 301).

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 Ordinance found at Section 5.2-1(2) (i.e. provided there are adequate flood ventilation openings).

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. The term “manufactured home” does not include a “recreational vehicle.”

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.

New Construction: means structures for which the “start of construction” commenced on or after the effective date of this Ordinance.

New Manufactured Home Park or Subdivision: means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

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.

Recreational Vehicle: means a vehicle,

- 1) Built on a single chassis;
- 2) 400 square feet or less when measured at the largest horizontal projection;
- 3) Designated 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.

Start of Construction: includes substantial improvement, and means the date any permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 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.

Substantial Damage: means 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.

Structure: A walled and roofed building, including a gas or liquid storage tank that is principally above ground.

Substantial Improvement: means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

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

Subdivision: means a division of land into four or more lots, tracts, parcels, sites or divisions where any one of the lots, tracts, parcels, sites or divisions is less than five (5) acres in size and shall include all re-subdivisions of land. The term shall also include all short subdivisions, as defined by County Ordinance.

Time Computation: For the purposes of this Ordinance, the time within which an act is to be done shall be computed by excluding the first day, and including the last, unless the last

day is a legal holiday as defined in RCW 1.16.050 or Sunday, and then it is also excluded.

Variance: means a grant of relief from the requirements of this Ordinance that permits construction in a manner which would otherwise be prohibited by this Ordinance.

Water Dependent: means a structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.”

SECTION 3.0

GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This Ordinance shall apply to all areas of special flood hazards within the unincorporated areas of Wahkiakum County, Washington.

3.2 *“Basis For Establishing The Areas of Special Flood Hazard:*

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Preliminary Flood Insurance Study (FIS)” dated March, 1987, together with Flood Insurance Rate Maps (FIRM) dated September, 1990, are hereby adopted by reference and declared to be a part of this Ordinance. The Flood Insurance Study and maps are on file at the Public Works Department, Building Section, located at 64 Main Street, Cathlamet, Washington 98612.” (Ord. 142-06)

3.3 PENALTIES FOR NONCOMPLIANCE

- (1) The Prosecuting Attorney shall bring such injunctive, declaratory or other actions as are necessary to insure compliance with this Ordinance.
- (2) Any person who fails to comply with any provision of this Ordinance shall also be subject to a civil penalty not to exceed one thousand dollars for each violation. Civil penalties shall be assessed in writing by the Administrator. Each violation or each day of noncompliance shall constitute a separate violation.
- (3) The civil 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. The notice shall describe the violation with reasonable particularity and shall order the acts constituting the violation or violations to cease and desist or, in appropriate cases, may require necessary corrective action to be taken within a specific and reasonable time.
- (4) Any civil penalty imposed pursuant to this section shall be subject to review by the Board of County Commissioners as provided in Section 4.5 of this Ordinance.

3.4 ABROGATION AND GREATER RESTRICTIONS

This Ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However where this Ordinance and another Ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION

In the interpretation and application of this Ordinance, all provisions shall be:

- (1) Considered as minimum requirements; and

- (2) Deemed neither to limit nor repeal any other powers granted under State statutes.

3.6 WARNING AND DISCLAIMER OF LIABILITY

The degrees of flood protection required by this Ordinance are considered reasonable for regulatory purposes and are based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This Ordinance 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 Ordinance shall not create liability on the part of Wahkiakum County, and any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made hereunder. Enforcement of this Ordinance shall not be construed to be for the particular benefit of any individual person or group of persons other than the general public. Nothing in this Ordinance shall be construed to impose any legal duty, directly or indirectly, upon the County of Wahkiakum or any of its officials, employees, or contractors, to protect the individual persons or property in individual circumstances. In the event of a conflict between the intent of this subsection and any other section or subsection of this Ordinance, this subsection shall govern insofar as applicable.

SECTION 4.0

ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT

4.1-1 Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.2. The permit shall be for all structures including manufactured homes, as set forth in the "Definitions", and for all development including fill and other activities, also as set forth in the "Definitions". A development permit will be issued as required by law. In cases where the structure is exempt from either a building or shorelines permit, a development permit may be included within the shorelines exemption letter if used. Permit fees shall be charged as periodically established by Resolution of the Board of County Commissioners." (Ord. 142-06)

4.1-2 Application for Development Permit

Application for a permit shall be made on forms furnished by the Public Works Department. Applicants may be required to submit a scale drawing 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 may be 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 registered professional engineer or architect, unless exempted by the Administrator, that the floodproofing methods for any non-residential structure meet the floodproofing criteria in Section 5.2-2.
- (4) Description of the extent to which a watercourse will be altered as a result of proposed development.

4.2 DESIGNATION OF THE ADMINISTRATOR

The Public Works Director is hereby appointed to administer and implement this Ordinance by granting or denying development permit applications in accordance with its provisions.

4.3 DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR

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

4.3-1 Permit Review

- (1) Review all development permits to determine that the permit requirements of this Ordinance has been satisfied.
- (2) Review all development permits to determine that all necessary permits have been obtained or are being applied for from those Federal, State, or local governmental agencies from which prior approval is required. The County's

review shall not be determinative as to whether such other State or Federal or local permits are required. The final responsibility for making such determination as to the necessity for other permits is with the permit applicant.

- (3) Review all development permits to determine if proposed development is located in the floodway. If located in the floodway, assure that the provisions of Section 5.3 are met.

4.3-2 Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 3.2, **BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD**, 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 5.2 **SPEFIFIC STANDARDS**, and 5.3 **FLOODWAYS**.

4.3-3 Information to be Obtained and Maintained

- (1) **Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 4.3-2**, 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 substantially improved floodproofed structures:
 - (i) verify and record the actual elevation (in relation to mean sea level); and
 - (ii) maintain the floodproofing certifications required in Section 4.1-2(3).
- (3) Maintain for public inspection all records pertaining to the provisions of this Ordinance.

4.3-4 Alteration of Watercourses

- (1) Notify adjacent communities 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 Administration.
- (2) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

4.3-5 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 4.4.

4.4 VARIANCES

4.4-1 Procedure

- (1) The Administrator may consider applications for variances from the requirements of this Ordinance, subject to the provisions of this Section 4.4. An application for a variance shall be made upon forms provided by the Public Works Department.
- (2) In passing upon any applications for variance, the Administrator shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Ordinance; and:
 - (i) the danger that materials may be swept onto other lands to the injury of others;
 - (ii) the danger to life and property due to flooding or erosion damage;
 - (iii) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (iv) the importance of the services provided by the proposed facility to the community;
 - (v) the necessity to the facility of a waterfront location, where applicable;
 - (vi) the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - (vii) the compatibility of the proposed use with existing and anticipated development;
 - (viii) the relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
 - (ix) the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (x) the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
 - (xi) the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- (3) Upon consideration of the factors of Section 4.4-1(2) and the purposes of this Ordinance, the Administrator may attach such conditions to the granting of variances as he/she deems necessary to further the purposes of this Ordinance.
- (4) The Administrator shall report any variances to the Federal Insurance Administration upon request.

4.4-2 Conditions for Variances

- (1) Generally, the only condition under which a variance from the elevation standard may be issued is for the new construction and substantial improvements to be erected on a lot of one-half or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (i – xi) in Section 4.4-1(4) have been fully considered. As the lot size increases, the technical justification required for issuing the variance increases.

- (2) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in this section.
- (3) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result;
- (4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (5) Variances shall only be issued upon:
 - (i) a showing of good and sufficient cause;
 - (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in Section 4.1-4(4), or conflict with existing local laws or ordinances.
- (6) **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.**
- (7) **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 that such action will have low damage potential, complies with all other variance criteria except 4.4-2(l), and otherwise complies with Sections 5.1-1 and 5.1-2 of the GENERAL STANDARDS.**
- (8) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

4.5 APPEALS

- (1) A person aggrieved by the issuance or denial of a development permit or variance or by the imposition of a civil penalty may appeal such action to the Board of County Commissioners. Any such appeal shall be in writing and must be filed with the Board within fourteen (14) days of the transmittal of the Administrator's decision to the applicant. The appeal shall specify the reasons therefore. The Administrator shall provide the Board with the findings and documentation relating to the decision being appealed.
- (2) The Board, following a de novo hearing, shall affirm, modify, or reverse the Administrator's decision. The appellant carries the burden of proof on appeal. The Board shall reach a decision on the appeal within twenty-one (21) days following the filing of the appeal unless the appellant consents to an extension of time. The Board's decision shall be in writing and shall contain findings of fact and shall be filed with the Clerk of the Board and a copy thereof shall be transmitted to the appellant.

- (3) The decision of the Board shall be final and conclusive unless within fourteen (14) days from the date of transmittal the original applicant or an adverse party files an appeal to the Superior Court for Wahkiakum County for a writ of certiorari, a writ of prohibition, or a writ of mandamus. The filing of such an appeal within such time limit shall stay the effective date of the order of the Board until such time as the appeal shall have been adjudicated or withdrawn. Concurrently with filing such notice of appeal, the aggrieved party shall serve a copy thereof on the Clerk of the Board.
- (4) Any appeal hereunder which is transmitted through the United States Mail shall be deemed filed and received by the County on the date shown by the Post Office cancellation mark stamped upon the envelope or other appropriate wrapper containing it.

SECTION 5.0

PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 GENERAL STANDARDS

In all areas of special flood hazards, the following standards are required:

5.1-1 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 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).**

5.1-2 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.**

5.1-3 Utilities (Ord. 142-06)

1. *All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;*
2. *Water wells shall be located on high ground that is not in the floodway;*
3. *New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;*
4. *Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.*

5.1-4 Subdivision Proposals (Ord. 142-06)

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 or eliminate flood damage;*
3. *All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage;*
4. *Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other*

proposed developments which contain at least 50 lots or 5 acres (whichever is less)."

5.1-5 Review of Building/Shoreline Permits

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (Section 4.3-2), applications for building permits/shoreline permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above the highest adjacent grade in these zones may result in higher insurance rates."

5.2 SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been Provided as set forth in Section 3.2, **BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD** or Section 4.3-2, Use of Other Base Flood Data, the following provisions are required:

5.2-1 Residential Construction (Ord. 142-06)

1. *New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation (BFE).*

Note: Minimum FEMA standards require the lowest floor to be elevated "to or above" the BFE; however, adding an additional foot of freeboard increases safety and can reduce insurance premiums by as much as 30%. Adopting additional freeboard is strongly encouraged by FEMA.

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

- i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed areas subject to flooding shall be provided.*
- ii) The bottom of all openings shall be no higher than one foot above grade.*
- iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exist of floodwaters.*

Note: Foundation vent standards required by the IBC/IRC outside the floodplain do not meet this standard and are often inadvertently permitted. Insurance rates reflect an "all or nothing" standard, meaning, partially ventilated crawlspaces may be subject to an additional loading fee of 20-25% attached to the annual insurance premium.

3. *NFIP requirements for all Crawlspace Construction. Crawlspaces are commonly used as a method of elevating buildings in SFHAs to or above the BFE. General NFIP requirements that apply to all crawlspaces that have enclosed areas or floors below the BFE shall be following:*

- i) 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. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required openings discussed in the next subsection. Because of hydrodynamic loads, crawlspace construction is not recommended in areas with flood velocities greater than 5 feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer. Other types of foundations are recommended for these areas.*
- ii) The crawlspace is an enclosed area below the BFE and, as such, must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than 1 foot above the lowest adjacent exterior grade. For guidance on flood openings, see FEMA Technical Bulletin 1-93, Openings in Foundation Walls.*
- iii) Crawlspace construction is not permitted in V zones. Open pile or column foundations that withstand storm surge and wave forces are required in V zones.*
- iv) 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. The recommended construction practice is to elevate the bottom of joists and all insulation above BFE. Insulation is not a flood-resistant material. When insulation becomes saturated with floodwater, the additional weight often pulls it away from the joists and flooring. Ductwork or other utility systems located below the insulation may also pull away from their supports. See the section Flood-Resistant Materials, on page 8 of FEMA Technical Bulletin No. FEMA 467-1. For more detailed guidance on flood-resistant materials see Technical Bulletin 2-93, Flood-Resistant Materials Requirements.*
- v) 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. For further guidance on the placement of building utility systems in crawlspaces, see FEMA 348, Protecting Building Utilities From Flood Damage.*
- vi) The interior grade of a crawlspace below the BFE must not be more than 2 feet below the lowest adjacent exterior grade (LAG).*
- vii) 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. The height limitation is the maximum allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas (see the section Guidance for Pre-Engineered Crawlspace, on page 7 of the FEMA Technical Bulletin, No. FEMA 467-1). This limitation will also prevent these crawlspaces from being converted into habitable spaces.

viii) There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles, or gravel or crushed stone drainage by gravity or mechanical means.

ix) The velocity of floodwaters at the site should not exceed 5 feet per second for any crawlspace. For velocities in excess of 5 feet per second, other foundation types should be used.”

5.2-2 Nonresidential Construction

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

- (1) 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;
- (2) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) be certified 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 4.3-3(2). The certification shall be by a registered professional engineer or architect unless exempted by the Administrator.
- (4) **Nonresidential structures that are elevated, but not floodproofed, must meet the same standards for space below the lowest floor as described in 5.2-1(2).**
- (5) **Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building constructed to one foot above the base flood level will be rated as at the base flood level.)**

5.2-3 Critical Facility

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the base flood plain. Construction of new critical facilities shall be permissible within the base flood plain if no feasible alternative site is available. Critical facilities constructed within the base flood plain shall have the lowest floor elevated to three (3) feet or more above the level of the base flood elevation at the site. Floodproofing and sealing measures must be taken to insure that toxic substances will not be displaced by

or released into flood waters. Access routes elevated to or above the level of the base flood plain shall be provided to all critical facilities to the extent possible.

5.2-4 Manufactured Homes (Ord. 142-06)

1. *All manufactured homes in the floodplain to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.”*

5.2-5 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 flood proofed to prevent damage by floodwaters.

5.2-6 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 **Error! No index entries found.** or around the bridge structure without resulting in a significant damming of the stream. Plans may be submitted to the Public Works Director for review.
- (2) The minimum floodway width shall be maintained. When center support piles are necessary, the structure shall be signed to withstand floodwater velocities with debris hang-up and shall not result in increased flood depth or velocities.
- (3) 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 significant damming of the stream. Plans may be submitted to the Public Works Director for review.
- (4) Docks, piles, and bridge abutments shall be designed to withstand regulatory flood flows and the additional hydrologic pressures associated with debris hang-up on the structure during a flood.

5.2-7 Recreational Vehicles (Ord. 142-06)

Recreational vehicles placed on sites are required to either:

1. *Be on the site for fewer than 180 consecutive days, (or)*
2. *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*
3. *Meet the requirements of 5.2.-4 above and the elevation and anchoring requirements for manufactured homes.”*

5.3 FLOODWAYS (Ord. 142-06)

“Located within areas of special flood hazard established in Section 3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris, potential projectiles, and increase 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 is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would 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 (i) repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and (ii) repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either, (A) before the repair, or reconstruction is started, or (B) if the structure has been damaged, and is being restored, before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or to structures identified as historic places, may be excluded in the 50 percent.*
- c) If subsection 5.3(a) and (b) are satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 5., Provisions For Flood Hazard Reduction.*
- d) The cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point. This paragraph is applicable when base flood elevations have been provided but floodways have not.”*

5.4 STANDARDS FOR SHALLOW FLOODING AREAS (AO ZONES)

Shallow flooding areas appear on FIRM's as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

- (1) New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated above the highest grade adjacent to the building, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).
- (2) New Construction and substantial improvements of nonresidential structures within AO zones shall either:

- (i) have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified); or
 - (ii) together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified.
- (3) Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

SECTION 6.0
Ordinance 109-89

VALIDITY

- 6.1** Should any section clause or provision of this Ordinance be declared invalid, the same shall not affect the validity of this Ordinance as a whole or any art thereof other than the part so declared invalid.
- 6.2** This Ordinance shall be in full force and effect from and after the 20th day of June, 1989
- 6.3** This Ordinance shall be codified in the Revised Code of Wahkiakum County as Chapter 86.16.
- 6.4** This Ordinance may be referred to as the Wahkiakum County Flood Damage Prevention Ordinance.
- 6.5** Wahkiakum County Resolution 13-74 is hereby repealed; **PROVIDED, HOWEVER**, that any enforcement actions pending there under shall not be abated or affected.

DULY PASSED AND ADOPTED FOLLOWING PUBLIC HEARING HEREON,

This 9th day of May, 1989.

**BOARD OF COUNTY COMMISSIONERS
OF WAHAKIAKUM COUNTY, WASHINGTON**

ATTEST:

/s/ Donald E. Wright, Chairman

/s/ Lucille M. Below,
Clerk of the Board

/s/ Ronald D. Ozment, Commissioner

APPROVED AS TO FORM this
9th day of May, 1989

/s/ Mark L. Doumit, Commissioner

/s/ Fred J. Johnson
Prosecuting Attorney

Section 11.
Ordinance 142-06

Validity

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

11.2 This Ordinance shall be in full force and effect from and after the 1st day of February, 2006.

11.3 This Ordinance shall be codified in the Revised Code of Wahkiakum County within Chapter 86.16.

11.4 The Ordinance sections amended under this Ordinance are amended upon the effective date of this Ordinance, except with respect to rights and duties which matured, taxes, assessments, or penalties which were incurred, and proceedings which were begun prior to February 1, 2006.

DULY PASSED AND ADOPTED FOLLOWING PUBLIC HEARING HEREON this 24th day of January, 2006.

**BOARD OF COUNTY COMMISSIONERS
OF WAHAKIYAKUM COUNTY, WASHINGTON**

ATTEST:

Holly A. Pfenniger
Clerk of the Board

Daniel L. Cothren, Commissioner

George A. Trott, Commissioner

Mark E. Linqvist, Chairman

APPROVED AS TO FORM this
24th day of January, 2006:

Fred A. Johnson
Prosecuting Attorney