

**ORDINANCE NO. 1175**

**AN ORDINANCE OF THE CITY OF KALAMA, WASHINGTON AMENDING THE KALAMA MUNICIPAL CODE BY REPEALING CHAPTER 14.16 FLOODPLAIN MANAGEMENT IN ITS ENTIRETY AND ADOPTING A NEW CHAPTER 14.16 FLOODPLAIN MANAGEMENT.**

WHEREAS the Legislature of the State of Washington has delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry;

WHEREAS the Kalama City Council finds that flood hazard areas of Kalama 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;

WHEREAS the Kalama City Council finds that 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;

WHEREAS the Kalama City Council has adopted Kalama Municipal Code Chapter 14.16 Floodplain Management by Ordinance No. 1157 in 2005;

WHEREAS the Kalama City Council has found that the current code needs to be updated to correct deficiencies with state and federal requirements in order to continue to be in compliance with the National Flood Insurance Program;

NOW THEREFORE the City Council of the City of Kalama do ordain as follows:

Section 1: Kalama Municipal Code Chapter 14.16 Floodplain Management is repealed in its entirety.

Section 2: A new Kalama Municipal Code Chapter 14.16 Floodplain Management is adopted as follows:

#### 14.16.010 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:

- A. To protect human life and health;
- B. To minimize expenditure of public money and costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

#### 14.16.020 Methods of Reducing Flood Losses

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

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas.

#### 14.16.030 Definitions

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 structure" means any structure whose use is supplemental to the primary land use or structure, **small in size, and low in value**, including but not limited to utility pads, pump houses, sani-cans, small storage sheds, etc.

"Appeal" means a request for a review of the 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). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.

"Area of Special Flood Hazard" means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.

"Base Flood" means the flood having a one percent(1%) chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood." Designation on maps always includes the letters A or V.

"Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

"Breakaway Wall" means a wall that is not part of the structural support of the building and is 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.

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

"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.

"Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard.

"Elevated Building" means for insurance purposes, a nonbasement building which 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 areas 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 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(fis)" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

"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" means 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."

"Lowest Floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Chapter found at Section 14.16.100(A).

"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 attached 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.

"Recreational Vehicle" means a vehicle which is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

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

"Structure" means a walled and roofed building including a gas or liquid storage tank that is principally above ground.

"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.

"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 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.

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

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

#### 14.16.040 General Provisions

##### A. Lands to Which this Ordinance Applies

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of Kalama.

##### B. 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 Flood Insurance Study for Kalama dated December 1, 1980, and any revisions thereto, with an accompanying Flood Insurance Rate Map (FIRM), and any revisions thereto, are hereby adopted by reference and declared to be a part of this ordinance.~~ **"The Flood Insurance Study for Cowlitz County, Washington and Incorporated Cities, dated December 16, 2015, and any revisions thereto, with an accompanying Flood Insurance Rate Map (FIRM), and any revisions**

**thereto, are here-by adopted by reference and declared to be a part of this ordinance.”** The Flood Insurance Study and the FIRM are on file at City Hall, 320 N. First Street, Kalama. The best available information for flood hazard area identification as outlined in Section 14.16.070 (B) shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under Section 14.16.070 (B)

C. Penalties for Noncompliance

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$1000.00 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the City of Kalama from taking such other lawful action as is necessary to prevent or remedy any violation.

D. 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.

E. Interpretation

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

1. Considered as minimum requirements;
  2. Liberally construed in favor of the governing body; and,
  3. Deemed neither to limit nor repeal any other powers granted under State statutes.

F. Warning and Disclaimer of Liability

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-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 Kalama, 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.

14.16.050 Establishment of Development Permit

A. Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in 14.16.040(B). 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."

B. Application for Development Permit

Application for a development permit shall be made on forms furnished by the City and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate (FF 81-31) with Section B completed by the local official.
2. Elevation in relation to mean sea level to which any structure has been flood proofed;
3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in 14.16.100(B); and
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

14.16.060 Designation of the Local Administrator

The Clerk/Treasurer or designee is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

14.16.070 Duties and Responsibilities of the Local Administrator

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

A. Permit Review

1. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.
3. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of 14.16.120(A) are met.



B. Use of Other Base Flood Data (In A and V Zones)

When base flood elevation data has not been provided (A and V Zones) in accordance with Section 14.16.040(b) 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 14.16.100, Specific Standards, and 14.16.120 Floodways.

C. Information to be Obtained and Maintained

1. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in Section 14.16.070(B), obtain and record the actual (as built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
2. For all new or substantially improved flood proofed nonresidential structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in Section 14.16.070(B):
  - a. Obtain and record the elevation (in relation to mean sea level) to which the structure was flood proofed and
  - b. Maintain the floodproofing certifications required in Section 14.16.050(B)(3).
3. Maintain for public inspection all records pertaining to the provisions of this ordinance

D. Alteration of Watercourses

1. Notify adjacent communities and the 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.

E. Interpretation of FIRM Boundaries

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 14.16.080.

14.16.080 Conditions for Variances

- A. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (1-3) in Section 14.16.080(D) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
- B. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
- C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. Variances shall only be issued 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, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- E. 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.
- F. 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 14.16.080(B), and otherwise complies with Sections 14.16.090(A),14.16.090(C), and 14.16.090(D) of this Chapter
- G. 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.

14.16.090 Provisions for Flood Hazard Reduction-General Standards

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

- A. Anchoring
1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
  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 (For more detailed information refer to guidebook, FEMA-85, "Manufactured Home Installation in Flood Hazard Areas").
- B. AH Zone Drainage
- Adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.
- C. 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.
- D. Utilities
1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
  2. The proposed water well shall be located on high ground that is not in the floodway (WAC 173-160-171);
  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; and,
  4. Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- E. Subdivision Proposals
1. All subdivision proposals shall be consistent with the need to minimize flood damage;
  2. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;

3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
4. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

F. Review of Building Permits

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (Section 14.16.070(B)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local 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.

14.16.100 Specific Standards

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 14.16.040(B), Basis for Establishing the Areas of Special Flood Hazard, or Section 14.16.070(B), Use of Other Base Flood Data, the following provisions are required:

A. Residential Construction

- A. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the regulatory flood elevation.
- B. 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:
  - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
  - b. The bottom of all openings shall be no higher than one foot above grade.
  - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

B. Nonresidential Construction

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

- A. Be flood proofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- B. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- C. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 14.16.070(C)(2);
- D. Nonresidential structures that are elevated, not flood proofed, must meet the same standards for space below the lowest floor as described in 14.16.100(A)(2); and
- E. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood proofed level (e.g. a building flood proofed to the base flood level will be rated as one foot below).

C. Manufactured Homes

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 designed foundation system to resist flotation, collapse and lateral movement.

D. Recreational Vehicles

Recreational vehicles placed on sites are required to either:

- 1. Be on the site for fewer than 180 consecutive days;
- 2. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or\
- 3. Meet the requirements of 14.16.100(C) above and the elevation and anchoring requirements for manufactured homes.

E. Accessory Structures

Accessory structures shall

1. Not be used for human habitation;
2. Be designed to have low flood damage potential and flood resistant materials must be used below the base flood elevation;
3. Be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters and have
  - A. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
  - B. The bottom of all openings shall be no higher than one foot above grade.
  - C. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
4. Be firmly anchored to prevent flotation, collapse, or lateral movement that may result in damage to other structures;and
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.

F. Bridges, culverts and docks.

1. All bridges shall be designed and constructed to provide for the passage of regulatory floodflows. The total design of the bridge, its road approaches and associated utilities and bank stabilization shall allow for floodflows to pass under or around the bridge structure without resulting in a significant damming of the stream. Plans may be submitted to the county engineer for review.
2. The minimum floodway width shall be maintained. When center support piles are necessary, the structure shall be designed to withstand floodwater velocities with debris hangup and shall not result in increased flood depth or velocities.
3. Culverts shall be sized to adequately pass regulatory floodflows. 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 county engineer for review.
4. Docks, piles and bridge abutments shall be designed to withstand regulatory floodflows and the additional hydrologic pressures associated with debris hangup on the structure during a flood.

14.16.110 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 with 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.

#### 14.16.120 Floodways

Located within areas of special flood hazard established in Section 14.16.040(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer 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 shall not be included in the 50 percent.
- C. If Section 14.16.120(A) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 14.16.090, PROVISIONS FOR FLOOD HAZARD REDUCTION.

#### 14.16.130 Critical Facility

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

Section 3. Severability. If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining parts of this ordinance.

Section 4. This ordinance shall become effective five days after passage, approval, and publication as provided by law.

Passed by the City Council of the City of Kalama at a regular meeting held on the 16<sup>th</sup> day of December, 2015.

Attest:

\_\_\_\_\_

\_\_\_\_\_  
Coni McMaster, Clerk/Treasurer

Approved as to form:

\_\_\_\_\_  
City Attorney

Passed: \_\_\_\_\_

Published: \_\_\_\_\_

Effective: \_\_\_\_\_