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Date: June 3, 2022

To: Cle Elum Planning Commission

From: Gregg Dohrn

With Copies To: Mayor McGowan, Rob Omans, Kathi Swanson, Alex Kenyon

Subject: Flood Hazard Prevention Regulations

The City has adopted the amendments necessary to remain eligible for participation in the national flood insurance program on an interim basis. To remain eligible, the City must now adopt these measures on a permanent basis (See attached Exhibit A). As a practical matter, there is very little, if any discretion available to the City in this matter, the interim regulations must be adopted if property owners are to remain eligible for federal flood insurance.

The City did not receive any comments on these regulations when they were adopted on an interim basis, and no comments have been received by the City prior to the advertised public hearing during your regularly scheduled meeting on June 7th. It is recommended that the public hearing be opened and that the Planning Commission consider any comments that may be received. Assuming that there are no significant questions raised, a motion along the lines of the following may be appropriate:

> *I move that we recommend to the City Council that the Interim Flood Hazard Prevention Regulations be adopted in substantively the same form as the attached draft regulations, recognizing that reformatting and editing may occur to be consistent with the format of recently updated development regulations.*

Exhibit A
CEMC Chapter 15.24
Flood Hazard Prevention
Public Review Draft
May 6, 2022

Sections:

15.24.010 Statutory Authorization.

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

15.24.020 Findings of Fact.

A. The flood hazard areas of the city are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

15.24.030 Purpose.

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in 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.

15.24.040 Definitions.

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

"Alteration of watercourse" means any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

"Appeal" means a request for a review of the interpretation of any provision of this chapter or a request for a variance.

"Area of shallow flooding" means a designated AO, AH, AR/AO or AR/AH zone on the Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of 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. Such flooding is characterized by sheet flow or ponding. Also referred to as the sheet flow area.

"Area of special flood hazard" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on Flood Insurance Rate Maps (FIRM) includes the letters A, AO, AH, A1-30, AE, A99 and AR. "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard."

"ASCE 24" means the most recently published version of ASCE 24, Flood Resistant Design and Construction, published by the American Society of Civil Engineers.

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

"Base Flood Elevation (BFE)" means the elevation to which floodwater is anticipated to rise during the base flood.

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

"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.

"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.

"Flood" or "flooding" means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from:

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

    b. The unusual and rapid accumulation of runoff of surface waters from any source.

    c. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

2. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(a) of this definition.

“Flood elevation study” means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

“Flood insurance rate map (FIRM)” means the official map on which the Federal Insurance Administrator has delineated both the areas of special flood hazards and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

“Flood insurance study” See “Flood Elevation Study.”

“Floodplain or flood-prone area” means any land area susceptible to being inundated by water from any source. See "Flood or flooding."

“Floodplain administrator” means the community official designated by title to administer and enforce the floodplain management regulations.

“Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or

improved real property, water and sanitary facilities**,** structures, and their contents. Floodproofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

"Floodway" means the channel or a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Also referred to as "Regulatory Floodway."

"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 the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic Structure" means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register.

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district.

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

    a. By an approved state program as determined by the Secretary of the Interior; or

    b. Directly by the Secretary of the Interior in states without approved programs.

"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 in Section 15.24.150(A)(2).

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. For insurance purposes, "manufactured home" does not include park trailers, travel trailers, and other similar vehicles."

"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.

"Mean Sea Level" means, for purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

"New construction" means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

"Recreational vehicle" means a vehicle which is built on a single chassis, four hundred square feet or less when measured at the largest horizontal projection, designed to be self-propelled or permanently towable by a light duty truck and 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, rehabilitation, addition, placement, or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of

streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"Structure" means a walled and roofed building including a gas or liquid storage tank that is principally aboveground, as well as a manufactured home.

"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 reconstruction, rehabilitation, addition or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual work performed. The term does not, however, include either:

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

2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

"Variance" means a grant of relief by a community from the terms of a floodplain management regulation.

"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.

15.24.050 Applicability of Provisions.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Cle Elum.

15.24.060 Basis for Establishing Areas of Special Flood Hazard

The areas of special flood hazard identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study for Kittitas County, Washington and Incorporated Areas" dated September 24, 2021, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRMs) , and any revisions thereto, are adopted by reference and declared to be part of this chapter. The Flood Insurance Study and FIRM are on file at the Cle Elum City Hall 119 West First Street, Cle Elum, Washington, 98922. The best available information for flood hazard area identification as outlined in Section 15.24.130(B) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under Section 15.24.130(B).

15.24.065 Compliance.

All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.

15.24.070 Interpretation of Provisions.

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

A. Considered as minimum requirements.

B. Liberally construed in favor of the governing body; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes.

15.24.080 Liability – Disclaimer.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administrator, for any flood damages that result from reliance on this chapter, or any administrative decision lawfully made under this chapter.

15.24.090 Abrogation of Easements.

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

15.24.095 Severability.

This ordinance and the various parts thereof are hereby declared to be severable. Should any Section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the Section so declared to be unconstitutional or invalid.

15.24.100 General Flood Loss Reduction Methods.

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

A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel 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.

15.24.110 Development Permit – Required.

A. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in CEMC Section 15.24.060. 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. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures.

3. Proposed elevation in relation to mean sea level to which any structure will be floodproofed.

4. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in CEMC Section 15.24.150(B).

4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

5. Where development is proposed in a floodway, an engineering analysis indicating no rise of the Base Flood Elevation; and

6. Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

C. Development Permit Fee. An application fee, as set forth by resolution of the City Council, must be paid at the time of application.

15.24.120 Administration – Designation of the Floodplain Administrator.

The Mayor shall appoint a Floodplain Administrator to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

15.24.130 Administration – Duties and Responsibilities of the Floodplain Administrator.

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

A. Permit Review.

1. Review all development permits to determine that the permit requirements of this chapter have been satisfied.

2. Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.

3. Review all development permits to determine if the proposed development is located in the floodway, assure that the encroachment provisions of Section 15.24.160(B) are met.

4. Review all development permits to determine that the site is reasonably safe from flooding.

5. Notify FEMA when annexations occur in the Special Flood Hazard Area.

6. Notify FEMA of changes to the base flood elevation within six months of when technical information of such changes becomes available. Such notification shall include technical or scientific information.

B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 15.24.060, the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer Sections 15.24.150 and 15.24.160.

C. Information to be Obtained and Maintained.

1. Where base flood elevation data is provided through the Flood Insurance Study, Flood Insurance Rate Map, or required as in (B) of this section, obtain and maintain a record of 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 FIS, FIRM, or as required as in (B) of this section:

   a. Obtain and maintain a record of the actual elevation (in relation to mean sea level) to which the structure was floodproofed.

b. Maintain the floodproofing certifications required in Section 15.24.110(B)(3).

3. Maintain for public inspection all records pertaining to the provisions of this chapter.

4. Certification required by Section 15.24.160(A)(floodway encroachments).

5. Records of all variance actions, including justification for their issuance.

6. Improvement and damage calculations.

D. Alteration of Watercourses.

Whenever a watercourse is to be altered or relocated:

1. Notify adjacent communities and the state of Washington Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administrator through appropriate notification means; and

2. Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.

E. Interpretation of FIRM Boundaries. Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 15.24.170. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the NFIP.

15.24.140 General Construction and Development Standards.

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

A. Anchoring.

1. All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy.

2. All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

3. Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

C. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems.

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.

2. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and

4. Water wells shall be located on high ground that is not in the floodway.

D. Subdivision Proposals and Development.

1. All subdivision proposals, as well as new development, shall be consistent with the need to minimize flood damage.

2. All subdivision proposals, as well as new development, 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, as well as well as new development, shall have adequate drainage provided to reduce exposure to flood damage; and

3. Where subdivision proposals and other proposed developments in which base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least fifty lots or five acres (whichever is less).

E. Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study, Flood Insurance Rate Map, or from another authoritative source (Section 15.24.130(B)), applications for floodplain development 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 grade in these zones may result in higher insurance rates.

15.24.145 Critical Facility.

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

15.24.150 Construction and Development – Residential and Nonresidential – Manufactured Homes.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 15.24.060 or 15.24.130(B), the following provisions are required.

A. Residential Construction.

1. New construction and substantial improvement of any residential structure in an AO zone shall meet the following requirements:

    a. New construction and substantial improvements of residential structures and manufactured homes within AO zones shall have the lowest floor (including basement and mechanical equipment) elevated above the highest adjacent grade to the structure, one foot or more above the depth number specified in feet on the community's FIRM (at least two feet above the highest adjacent grade to the structure if no depth number is specified).

    b. New construction and substantial improvements of nonresidential structures within AO zones shall either:

        (1) 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

        (2) 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 by a registered professional engineer, or architect as in Section 18.03.150(B)(2)(c).

    c. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

    d. Recreational vehicles placed on sites within AO zones on the community's FIRM either:

        (1) Be on the site for fewer than 180 consecutive days, or

        (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 subsections (1) and (3) above and the anchoring requirements for manufactured homes (Section 18.03.140(A)(2)).

2. In AE zones or other A zoned areas where the BFE has been determined or can be reasonably obtained, new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the BFE. Mechanical equipment utilities shall be waterproofed or elevated at least one foot above the BFE.

3. New construction and substantial improvement of any residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonable obtained shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

4. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or if used solely for parking access or storage shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. 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, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

    d. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of floodwaters.

5. Interior grades below the lowest exterior grade are prohibited unless the interior grade is above the base flood elevation. Below grade crawlspaces are permitted subject to the following criteria:

    a. The interior grade is not more than two feet below the lowest adjacent exterior grade.

    b. The height of the below grade crawlspace, as measured from the interior grade to the top of the crawlspace foundation wall, must not exceed four feet at any point.

    c. There must be an adequate drainage system that removes interior floodwaters.

d. The velocity of floodwaters at the site should not exceed five (5) feet per second for any crawlspace.

e. 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.

f. 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.

g. 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.

h. 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.

B. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet the requirements of subsection 1 or 2 below:

1. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet all of the following requirements:

a. In AE zones or other A zoned areas where the BFE has been determined or can be reasonably obtained:

(1) New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall have the lowest floor, including basement, elevated one foot or more above the BFE, or elevated as required by ASCE 24, whichever is greater.

(2) Mechanical equipment and utilities shall be waterproofed or elevated at least one foot above the BFE, or as required by ASCE 24, whichever is greater.

b. If located in an AO zone, the structure shall meet the requirements in Section 15.24.150(A)(1).

c. If located in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

d. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or if used solely for parking, access or storage shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. 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:

(1) Have a minimum of two openings with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.

(2) The bottom of all openings shall be no higher than one foot above grade.

(3) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.

(4) A garage attached to a structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of flood waters.

2. If the requirements of subsection 1 are not met, then new construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall meet all of the following requirements:

a. Be floodproofed 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 or dry floodproofed to the elevation required by ASCE 24, whichever is greater.

b. Have structural components capable of resisting hydrostatic and hydrostatic loads and effects of buoyancy.

c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the

structural design, specifications, and plans. Such certifications shall be provided to the official as set forth in Section 15.24.130(C)(2); and

d. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (A)(1) of this section.

3. 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 the base flood level will be rated as one foot below that level).

C. Manufactured Homes. All manufactured homes to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home elevated one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section 15.24.140(A)(2).

D. Recreational Vehicles. Recreational vehicles, where authorized by the City of Cle Elum, placed on sites are required to:

1. Be on site for fewer than one hundred eighty consecutive days; and

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 15.24.150(C), above.

E. Enclosed Area Below the Lowest Floor. If buildings or manufactured homes are constructed or substantially improved with fully enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

15.24.155 AE Zones with Base Flood Elevations but No Floodways.

In areas with BFEs (when a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within AE zones 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.

15.24.160 Wetlands Management.

To the maximum extent possible, to avoid the short-term and long-term adverse impacts associated with the destruction or modification of wetlands, especially those activities which limit or disrupt the ability of the wetland to alleviate flooding impacts, the following process should be implemented:

A. Review proposals for development within base flood plains for their possible impacts on wetlands located within the flood plain.

B. Ensure that development activities in or around wetlands do not negatively affect public safety, health, and welfare by disrupting the wetlands' ability to reduce flood and storm drainage.

C. Request technical assistance from the Department of Ecology in identifying wetland areas. Existing wetland map information from the National Wetlands Inventory (NWI) can be used in conjunction with the community's FIRM to prepare an overlay zone indicating critical wetland areas deserving special attention.

15.24.170 Floodway Location.

Located within areas of special flood hazard established in Section 15.24.060 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters 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 shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. Construction or reconstruction of residential structures is prohibited within designated floodways, except for:

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

2. Repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure either:

a. Before the repair, reconstruction or repair is started, or

b. If the structure has been damaged, and is being restored, before the damage occurred. 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 fifty percent.

C. If subsection (A) of this section is satisfied or construction is allowed pursuant to subsection (B) of this section, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 15.24.150, provisions for flood hazard reduction.

15.24.175 Variance and Appeals Procedures.

A. Appeal Board.

1. The City Council shall hear and decide appeals and the city planner shall consider requests for variances from the requirements of this chapter.

2. The City Council shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the City in the enforcement or administration of this chapter.

3. In passing upon such applications, the City shall consider all technical evaluations, all relevant factors standards specified in other sections of this chapter, and:

a. The danger that materials may be swept onto other lands to the injury of others.

b. The danger to life and property due to flooding or erosion damage.

c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

d. The importance of the services provided by the proposed facility to the community.

e. The necessity to the facility of a waterfront location, where applicable.

f. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage.

g. The compatibility of the proposed use with existing and anticipated development.

h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area.

i. The safety of access to the property in times of flood for ordinary and emergency vehicles.

j. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

4. Upon consideration of the factors of subdivision 3 of this subsection and the purposes of this chapter, the City may attach such conditions to the granting of variances, as it deems necessary to further the purposes of this chapter.

5. The City shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

B. Conditions for Variances.

1. 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 a through k of subdivision 3 of (A) of this section 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 on 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:

   a. A showing of good and sufficient cause.

   b. A determination that failure to grant the variance would result in exceptional hardship to the applicant.

   c. 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 subsection (A)(3) of this section or conflict with existing local laws or ordinances.

5. 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 subdivision 1 of this subsection, and otherwise complies with subsections A and B of Section 15.24.140.

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.

15.24.180 Violation – Penalty.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its

requirements shall upon conviction be fined not more than five thousand dollars for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing contained in this chapter shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation.

City of Cle Elum, Washington
Potential Comprehensive Plan Amendments
2022 Annual Amendment Process Request #1 Firewise Amendments
April 5, 2022

Potential New Goal: *Actively protect the City from the risk of wildfires.*

Potential New Policy 1: *The City should require/actively encourage that property owners prepare and implement a stewardship plan in conjunction with the preparation and implementation of development plans. These plans should include:*

a.

Potential New Policy 2: *The City, in partnership with the County, Roslyn, South Cle Elum, and affected property owners, should prepare and implement development standards to minimize the risk of wildfires. This should include, but is not limited to:*

a. *Properties along the I-5 corridor.*
b. *Large parcels under common ownership within the City limits, the Cle Elum UGA, and nearby properties.*
c. *Forested properties.*
d. *Properties that contain environmentally sensitive areas, parks, open space, and required buffer areas.*

Potential New Policy 3: *The City should continue to Firewise city-owned property.*

Potential New Policy 4: *The City should encourage state and federal agencies, and non-profit organizations that own or manage large tracts of land to prepare and implement land stewardship plans that include measures to reduce the risk of wildfires.*

Potential New Policy 5: *The City, in partnership with the County and the Washington State Department of Natural Resources, should develop protocols to ensure that all development activities in and near forested areas are conducted in accordance with Industrial Fire Precaution Levels as determined by the Washington State Department of Natural Resources (DNR). This shall include but is not limited to compliance with the DNR Handbook on Forest Fire Protection published October 2018, and as may subsequently be amended.*

Potential New Policy 6: *The City, in partnership with property owners, should review and update emergency access routes and evacuation plans.*

Potential New Policy 7:

Potential New Policy 8: