### **ORDINANCE NO. 21-006**

### AN ORDINANCE amending certain provisions of Titles 16 and 18 of the Camas Municipal Code relating to Flood Hazard Regulations.

# THE COUNCIL OF THE CITY OF CAMAS DO ORDAIN AS FOLLOWS:

## Section I

Designated subsections of Titles 16.57.010; 16.57.050; 16.57.060; 16.57.080 and 18.03.050 of

the Camas Municipal Code are hereby added to or all as set forth in Exhibit A attached hereto.

# Section III

This ordinance shall take force and be in effect five (5) days from and after its passage and

publication as provided by law.

PASSED BY the Council and APPROVED by the Mayor this day of

, 2021.

SIGNED:\_\_\_\_\_\_Mayor

SIGNED:

Clerk

APPROVED as to form:

City Attorney

### EXHIBIT "A"

### Chapter 16.57 - FREQUENTLY FLOODED AREAS

#### 16.57.010 - Applicability.

- A. Frequently Flooded Areas. Frequently flooded areas include: The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Clark County, Washington, and incorporated areas" dated September 5, 2012, and any revisions thereto, are hereby adopted by reference and declared to be part of this ordinance, with accompanying Flood Insurance Rate Maps (FIRM). The study is the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Maps, and the water surface elevation of the base flood. The study and FIRM are on file at the City of Camas {616 NE 4<sup>th</sup> Avenue, Camas WA} and the City website {www.cityofcamas.us}. The best available information for flood hazard area identification as outline in Section 16.57.050(C) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized. The flood insurance study and accompanying rate maps are hereby adopted by reference, and declared part of this chapter. These are minimum designations; the director may identify additional areas.
- B. Use of Additional Information. The director may use additional flood information that is more restrictive than that provided in the flood insurance study conducted by the Federal Emergency Management Agency (FEMA) to designate frequently flooded areas, including data on channel migration, historical data, high water marks, photographs of past flooding, location of restrictive floodways, maps showing future build-out conditions, maps that show riparian habitat areas, or similar information.
- C. Flood Elevation Data. When the base flood elevation data is not available (Zone A), the director shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer this chapter.
- D. For the purposes of this chapter, definitions are generally found in CMC Section 18.03.
- E. Compliance. All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.
- F. 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 be subject to the enforcement provisions of Camas Municipal Code Sections 18.55.400-18.55.460.

16.57.050 - Performance standards—General requirements.

All Elevation Certificates (FEMA Form 81-31), Floodproofing Certificates for non-residential structures (FEMA Form 81-65), documents, and records pertaining to the provisions of this ordinance shall be maintained by the City for public inspection.

- A. All Necessary Permits Shall be Obtained. Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local government agencies from which prior approval is required. A development permit shall be obtained before construction or development begins within any frequently flooded area established in Section 16.57.010. 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 Floodplain Administrator 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 with Section B completed by the Floodplain Administrator.
- 2. Elevation in relation to mean sea level to which any structure has been floodproofed;
- 3. Where a structure is to be floodproofed, certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet floodproofing criteria in Section 16.57.060(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 indication 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. Designation of the Floodplain Administrator. The Community Development Director, or designee, is hereby appointed to administer, implement, and enforce this ordinance by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.
- D. Duties of the Floodplain Administrator. Duties of the (Floodplain Administrator) shall include, but not be limited to:
- E. Permit Review. Review all development permits to determine that:
  - 1. The permit requirements of this ordinance have been satisfied;
  - 2. All other required state and federal permits have been obtained;
  - 3. The site is reasonably safe from flooding;
  - 4. The proposed development is not located in the floodway. If located in the floodway, assure the encroachment provisions of CMC Section 16.57.020(E)(1) are met.
  - 5. Notify FEMA when annexations occur in the Special Flood Hazard Area.
- F. Information to be Obtained and Maintained.
  - 1. Where base flood elevation data is provided through the FIS, FIRM, or required as in CMC Section 16.57.010(C), 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 in CMC Section 16.57.010(C).
    - a. Obtain and maintain a record of the elevation (in relation to mean sea level) to which the structure was flood proofed.
    - b. Maintain the flood proofing certifications required in CMC Section 16.57.050(B)(3).
  - 3. Certification required by CMC Section 16.57.020(E)(1) (No-Rise Standard).
  - 4. Records of all variance actions, including justification for their issuance.
  - 5. Improvement and damage calculations (give an example).
  - 6. Maintain for public inspection all records pertaining to the provisions of this ordinance.
- G. Changes to Special Flood Hazard Area.

- 1. If a project will alter the BFE or boundaries of the SFHA, then the project proponent shall provide the community with engineering documentation and analysis regarding the proposed change. If the change to the BFE or boundaries of the SFHA would normally require a Letter of Map Change, then the project proponent shall initiate, and receive approval of, a Conditional Letter of Map Revision (CLOMR) prior to approval of the development permit. The project shall be constructed in a manner consistent with the approved CLOMR.
- 2. If a CLOMR application is made, then the project proponent shall also supply the full CLOMR documentation package to the Floodplain Administrator to be attached to the floodplain development permit, including all required property owner notifications.
- H. Area of Special Flood Hazards with Base Flood Elevation. When the base flood elevation is provided, but a regulatory floodway has not been designated, new construction, substantial improvements, or other development, including fill, shall not be permitted within frequently flooded areas, 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 inch at any point within the City limits.
- I. Areas Without Base Flood Elevation Data. Where base flood elevation data is not available (Zone A), and there is insufficient data then a report shall be submitted by a qualified professional that includes analysis of historical data and field surveys to ensure the proposed structure is reasonably safe from flooding. The reports shall include reasonable mapping to ensure proposed buildings are safe from flooding and to demonstrate 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 inch at any point within the City limits.
- J. Construction Materials and Methods.
  - 1. Methods that Minimize Flood Damage. All new construction and substantial improvements shall be constructed using flood resistant materials and utility equipment, and with methods and practices that minimize flood damage.
  - 2. Buildings shall be located outside the floodplain. For sites with no buildable area out of the floodplain, buildings may be allowed provided they are placed on the highest land on the site, oriented parallel to flow rather than perpendicular, and sited as far from the watercourse and other critical areas as possible. If the City detects any evidence of active hyporheic exchange on a site, the development shall be located to minimize disruption of such exchange.
  - 3. Utilities Shall be Protected. 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.
- K. Elevation Certificate Required Following Construction. Following construction of a building within the floodplain where the base flood elevation is provided, the applicant shall obtain a "finished construction" elevation certificate (FEMA Form 81-31, most current edition) from a registered professional engineer or architect that records the elevation of the lowest floor.
- L. Floodproofing (Non-Residential Only).
  - 1. When a building is to be floodproofed, it shall be designed and constructed using methods that meet the following requirements:
    - a. Watertight Building. The building shall be watertight with walls substantially impermeable to the passage of water below one foot above the base flood level;
    - b. Hydrostatic and Hydrodynamic Resistance. Structural components shall be capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

- c. Certified by a Registered Professional Engineer or Architect. The building shall 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.
- 2. Floodproofing Certificate Required Following Construction. Following construction of the building, the applicant shall obtain a floodproofing certificate (FEMA Form 81-65, most current edition) from a registered professional engineer or architect that records the actual (as-built) elevation to which the building was floodproofed.
- 3. Applicants who are flood proofing 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). Flood proofing the building an additional foot will reduce insurance premiums.
- M. Anchoring. All new construction and substantial improvements within the floodplain shall be anchored to prevent flotation, collapse, or lateral movement of the building resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy. All manufactured homes shall 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 frames tied to ground anchors.
- N. Fill and Grading. Fill and grading within the floodplain shall only occur upon a determination from a registered professional engineer that the fill or grading will not block side channels, inhibit channel migration, increase flood hazards to others, or be placed within a channel migration zone, whether or not the City has delineated such zones as of the time of the application. If fill or grading is located in a floodway, CMC Section 16.57.020 applies.
- O. Storage of Materials and Equipment.
  - 1. The storage or processing of materials that could be injurious to human, animal, or plant life if released due to damage from flooding is prohibited in special flood hazard areas.
  - 2. Storage of other material or equipment may be allowed if not subject to damage by floods and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.

16.57.060 - Performance standards—Specific uses.

In all special flood hazard areas the following provisions are required:

- A. Residential Units.
  - 1. Must be Above Base Flood Elevation. In AE zones or other A zoned areas where the BFE has been determined or can be reasonably obtained, new construction or placement of residential units and substantial improvement of any residential building shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation. Mechanical equipment and utilities shall be waterproof or elevated at least one foot above the BFE.
  - 2. New construction and substantial improvement of any residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonably 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.
  - 3. Areas Below the Lowest Floor. 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; and
- c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- d. 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.
- 4. 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 homes 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. All manufactured homes 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 frames ties to ground anchors. If the manufactured home is placed on a permanent footing/foundation with stem walls, CMC Section 16.57.060(A)(2) applies.
- B. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet the following requirements:
  - Must be Above Base Flood Elevation. In AE or other A zoned areas where the BFE has been determined or can be reasonably obtained, new construction and substantial improvement of any commercial, industrial, or other nonresidential building 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 be floodproofed in accordance with floodproofing (Section 16.57.050(L)). Unavoidable impacts to flooded areas (from fill) need to be mitigated.
  - 2. Areas Below the Lowest Floor. If floodproofed, areas shall be in accordance with floodproofing (Section 16.57.050(L)). If elevated and not floodproofed, fully enclosed areas below the lowest floor 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 three openings having a total net area of no 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; and
    - c. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.
  - 3. Unnumbered A Zones. 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.
- C. Utilities.
  - 1. Shall be Designed to Minimize Infiltration of Floodwaters. All new and replacement water supply systems shall be designed to preclude infiltration of floodwaters into the systems.
  - 2. Sanitary Sewage Systems. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
  - 3. On-site Waste Disposal Systems. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. New on-site sewage

disposal systems are prohibited for uses and activities prohibited from frequently flooded areas.

- 4. Water wells shall be located on high ground that is not in the floodway.
- D. Subdivision/Land Division Proposals.
  - 1. All land division proposals shall:
    - a. Minimize Flood Damage. Subdivisions, short subdivisions, planned developments, and binding site plans shall be designed to minimize or eliminate flood damage to proposed buildings; and public utilities and facilities that are installed as part of such subdivisions. Sewer, gas, electrical, and water systems shall be located and constructed to minimize flood damage. Subdivisions should be designed using natural features of the landscape, and should not incorporate "flood protection" changes.
    - b. Have Adequate Drainage. Subdivisions, short subdivisions, planned developments, and binding site plans shall have adequate natural surface water drainage in accordance with City requirements to reduce exposure to flood hazards; and
    - c. Show Flood Areas on Plat Maps. Subdivisions, short subdivisions, planned developments, and binding site plans shall show the one hundred-year floodplain, floodway, and channel migration zone on the preliminary and final plat maps.
    - d. Where other proposed developments contain greater than 5 acres, base flood elevation data shall be included as part of the application.
  - 2. Lots. No lot or portion of lot after the effective date of the ordinance codified in this title shall be established within the boundaries of a frequently flooded area.

16.57.080 - Variations—Additional considerations for frequently flooded areas. The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the City of Camas to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the Base Flood Elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

- A. Additional Variation Considerations. In review of variation requests for activities within frequently flooded areas, the City shall consider all technical evaluations, relevant factors, standards specified in this chapter, and:
  - 1. The danger to life and property due to flooding, erosion damage, or materials swept onto other lands during flood events;
  - 2. The susceptibility of the proposed facility and its contents to flood damage, and the effect of such damage on the proposed use;
  - 3. The importance of the services provided by the proposed use to the community;
  - 4. The necessity of a waterfront location and the availability of alternative locations for the proposed use that are not subject to flooding or erosion damage;

- 5. The safety of access to the property for ordinary and emergency vehicles;
- 6. 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
- 7. 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.
- B. Variations shall only be issued upon a determination that the granting of a variation 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 laws or ordinances.
- C. Variations shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.

### 18.03.050 - Environmental definitions.

In addition to the definitions found in Title 16, the following definitions shall also apply to this title:

"Adverse environmental impact" means an impact caused by vegetation removal which creates a risk of landslide or erosion, or which alters or damages wetlands, wetland buffers, wildlife habitat, streams, or watercourses.

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

"Area of shallow flooding" A designated zone AO, AH, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. 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 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE). "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

"Base flood" means the flood having a 1% chance of being equaled or exceeded in any given year (also referred to as the "100-year flood").

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

"Best available information" means, in the absence of official flood insurance rate map data, communities can use data from other federal, state, or other sources; provided this data has either been generated using technically defensible methods or is based on reasonable historical analysis and experience. Flood data from existing flood events may be used where flood events are considered more accurate indicators of past base flood conditions. Any variance from adopted flood insurance rate maps must be of a more restrictive nature.

"Buffer" means either: (1) an area adjacent to hillsides which provides the margin of safety through protection of slope stability, attenuation of surface water flows, and landslide, seismic, and erosion hazards reasonably, necessary to minimize risk to the public from loss of life, well-being, or property damage resulting from natural disasters; or (2) an area adjacent to a stream or wetland which is an integral part of the stream or wetland ecosystem, providing shade; input of organic debris and coarse sediments; room for variation in stream or wetland boundaries; habitat for wildlife; impeding the volume and rate of runoff; reducing the amount of sediment, nutrients, and toxic materials entering the stream or wetland; and protection from harmful intrusion to protect the public from losses suffered when the functions and values of stream and wetland resources are degraded.

"Critical root zone" is the area of soil around a tree trunk where roots are located that provide stability and uptake of water and minerals required for tree survival.

"Diameter at breast height (DBH)" means the diameter of the tree measured at four feet six inches above soil grade.

"Drainage facility" means the system of collecting and storing surface and stormwater runoff. Drainage facilities shall include but not be limited to all surface and stormwater runoff conveyance and containment facilities including streams, pipelines, channels, ditches, wetlands, closed depressions, infiltration facilities, retention/detention facilities, and other drainage structures and appurtenances, both natural and man-made.

"Environmentally sensitive area(s)" or "sensitive lands" means areas within the city that are characterized by, or support unique, fragile or valuable natural resources, or that are subject to natural hazards. Sensitive areas include wetlands and wetland buffers, streams and watercourses, steep slopes, and areas with potentially unstable soils, as those areas are defined and identified pursuant to this title and Title 16.

"Flood or Flooding" means

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

1. The overflow of inland or tidal waters.

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

3. 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.

B. 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 of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas 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 (FIS)" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Maps, and the water surface elevation of the base flood.

"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.

"Flood proofing" 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. Flood proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation. "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 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.

"Hazard tree." A hazard tree is any tree with a combination of structural defect and/or disease, which makes it subject to a high probability of failure and a proximity to persons or property which makes it an imminent threat.

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

"Hillsides" means geological features of the landscape having slopes of fifteen percent or greater. To differentiate between levels of hillside protection and the application of development standards, the city categorizes hillsides into four groups: hillsides of at least fifteen percent but less than forty percent; hillsides with unstable slopes; hillsides of forty percent slope and greater; hillsides which are ravine sidewalls or bluffs.

"Historic structure" means any structure that is:

A. 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;

B. 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;

C. 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

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

- 1. By an approved state program as determined by the Secretary of the Interior, or
- 2. Directly by the Secretary of the Interior in states without approved programs.

"Mean Sea Level" 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.

"Mitigation" means the use of any combination of, or all of the following actions:

- 1. Avoid impacts to environmentally sensitive areas by not taking a certain action, or parts of an action;
- 2. Minimize impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- 3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environmentally sensitive area;
- 4. Reducing or eliminating the impact over time by reservation and maintenance operations during the life of the development proposal;
- 5. Compensating for the impact by replacing or enhancing environmentally sensitive areas, or providing substitute resources.

"New construction" 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.

"Open space" means land set aside and maintained in a natural state, providing air, light, and habitat for wildlife, and/or containing significant trees and vegetation. Open space may contain environmentally sensitive lands, which include but are not limited to steep slopes and areas with unstable soils, wetlands, and streams and watercourses. Open space may also provide for active and passive recreation use. There are two general categories of open space, which are as follows:

- 1. "Natural open space" means land devoted to protecting environmentally sensitive lands as defined in this title and CMC Title 16. Natural open space generally has no developed areas, with the exception of trails as identified in the comprehensive parks, recreation, open space plan, or by a condition of development approval.
- 2. "Recreational open space" means land set aside for recreational opportunities, which may contain trails, sports fields, playgrounds, swimming pools, tennis courts, and picnic areas. Recreational open space is generally limited in size and intensity, proportionate to the development, and is intended for the enjoyment of the residents of the development.

"Open space connectors" means tracts of land with typically no sensitive lands that connect parcels of land to form the open space network.

"Open space network" means a network of open space composed of mostly wooded areas, steep slopes, ravines, streams and waterways, as areas identified in the comprehensive parks, recreation, and open space plan.

"Protective mechanism" means a method of providing permanent protection to open space, and shall include conservation easements, dedication to the city, conveyance to a public or private land trust, conveyance to a homeowner's association, restrictive covenants, or any combination of such mechanisms.

"Ravine sidewall" means a steep slope which abuts and rises from the valley floor of a stream, and which was created by the wearing action of the stream. Ravine sidewalls contain slopes predominantly in excess of forty percent, although portions may be less than forty percent. The toe of a ravine sidewall is the stream valley floor. The top of a ravine sidewall is typically a distinct line where the slope abruptly levels out. Where there is no distinct break in slope, the top is where the slope diminishes to less than fifteen percent. Minor natural or man-made breaks in the slope of ravine sidewalls shall not be considered as the top. Benches with slopes less than fifteen percent, and containing developable areas, shall be considered as the top.

Sensitive Areas. See "Environmentally sensitive areas."

"Sensitive area(s) map(s)" means those maps adopted, and/or incorporated by reference, by the city to identify the general location of environmentally sensitive or valuable areas. In case of questions as to map boundaries or mapping errors, the presence or absence of a sensitive area shall be determined in the field by a qualified professional, experienced in a discipline appropriate to evaluation of the appropriate feature, and shall determine the applicability of this chapter.

"Significant trees" means evergreen trees eight inches DBH, and deciduous trees twelve inches DBH. Does not include hazard trees or invasive species.

"Steep slopes" or "area with potential unstable soils" means any land potentially subject to landslides, severe erosion, or seismic activity (earthquake faults). Steep slopes are generally characterized by slopes of fifteen percent or greater, impermeable subsurface material (sometimes interbedded with permeable subsurface material), and/or springs or seeping groundwater during the wet season. Seismic areas are those lying along or adjacent to identified earthquakes faults.

"Stream" or "watercourse" means those areas where surface waters produce a defined channel or bed. The channel or bed need not contain water year-round. This definition does not include irrigation ditches, canals, storm or surface water conveyance devices, or other entirely artificial watercourses.

Streams are further categorized as Class 1 through 5 in accordance with the classifications used by WAC 222-16-030.

"Structure" For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Tree protection zone" is an arborist-defined area surrounding the trunk intended to protect roots and soil within the critical root zone and beyond, to ensure future tree health and stability. Tree protection zones may be calculated based on multiplying the tree's DBH by a factor of twelve depending on the tree's species and tolerance of root disturbance.

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

"Water dependent" means a use or portion of a use that cannot exist in a location which is not adjacent to the water, and which is dependent on the water by reason of the intrinsic nature of it operations. Examples include, but are not limited to: aquaculture, marinas, or float plane facilities.

"Wetland bond" insures the satisfactory installation, maintenance, and monitoring of wetland creation or enhancement as may be required as part of the SEPA or wetland mitigation plans. The bond has a beginning and ending date, and shall be in the amount as specified in CMC Section 17.21.050(B)(3).

"Wetland buffer" means a naturally vegetated and undisturbed, enhanced or revegetated area surrounding wetland that is part of a wetland ecosystem and protect a wetland from adverse impacts to its function, integrity, and value. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for wildlife; and protect wetland resources from human activities.

"Wetlands" means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands include those artificial wetlands intentionally created to mitigate conversions of wetlands.

"Wildlife habitat" means areas that provide food, protective cover, nesting, breeding, or movement for threatened, endangered, sensitive, monitor, or priority species of wildlife, or other wildlife species of special concern. "Wildlife habitat" shall also mean areas that are the location of threatened, endangered, sensitive, monitor, or priority species of plants, or other plant species of special concern.