

CHAPTER I GENERAL PROVISIONS

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I.010 Purpose.

The purpose of this Chapter is to implement the Shoreline Management Act's policy of protection of shoreline natural resources through the protection and encouraged restoration of ecological functions necessary to sustain these resources; in conjunction with the other provisions of the Douglas County Regional Shoreline Master Program ("SMP" or "Program") and satisfy the requirements of RCW 36.70A.060 by:

- A. Establishing standards to protect critical areas and to ensure no net loss of ecological function and value to shorelines of the State;
- B. Protecting the general public, resources and facilities from injury, loss of life, property damage or financial loss due to flooding, landslides, or steep slopes failure;
- C. Protecting unique, fragile and valuable elements of the environment including without limitation wildlife and its habitat;
- D. Meeting the requirements of the National Flood Insurance program and maintaining East Wenatchee as an eligible community for federal flood insurance benefits;
- E. Preventing cumulative adverse environmental impacts on water availability, water quality, groundwater, wetlands, rivers and streams;
- F. Providing appropriate guidance and protection measures for addressing the needs and concerns associated with critical areas that help define the quality of life in East Wenatchee;
- G. Encouraging the retention of open space and development of recreational opportunities, conserving fish and wildlife habitat, and increasing access to natural resource lands and water;
- H. Implementing applicable mandated federal and state regulations; and
- I. Best available science will be used where appropriate in determining appropriate measures to protect the functions and values of critical areas and for the preservation or enhancement of anadromous fisheries.

I.020 Applicability.

- A. When a Chapter reference is used, it shall be inclusive of all of Appendix H including the following:
 - 1. I Resource Lands/Critical Areas--General Provisions
 - 2. IA Resource Lands/Critical Areas-- Frequently Flooded Areas
 - 3. IB Resource Lands/Critical Areas--Wetlands
 - 4. IC Resource Lands/Critical Areas--Fish and Wildlife Habitat Areas
 - 5. ID Resource Lands/Critical Areas--Geologically Hazardous Areas
 - 6. IE Resource Lands/Critical Areas--Aquifer Recharge Areas
- B. The provisions of this chapter shall apply to all development activities within the shoreline jurisdiction within the City of East Wenatchee. Any development authorized to alter the condition of any land, water or vegetation; or to alter or construct any building, structure or improvement shall be in compliance with the requirements of this chapter.
- C. When the provisions of this chapter, any other provisions of this Program, or the East Wenatchee Municipal Code (EWMC) are in direct conflict with each other or with other federal or state regulations, the provision that is the most restrictive shall apply.
- D. The Administrator shall have broad authority and discretion to determine appropriate restrictions as applied by this chapter on existing lots of record for all development activity.

I.035 Trails and trail-related facilities.

Construction of commercial, public and private trails and trail-related facilities, such as picnic tables, benches, interpretive centers and signs, viewing platforms and campsites may be authorized within designated resource lands and critical areas, subject to the following minimum standards:

- A. Trail facilities shall, to the extent feasible, be placed on existing road grades, utility corridors, or any other previously disturbed areas;
- B. Trail facilities shall minimize the removal of trees, shrubs, snags and important habitat features. Vegetation management performed in accordance with best management practices as part of ongoing maintenance to eliminate a hazard to trail users is considered consistent with this standard;
- C. Viewing platforms, interpretive centers, campsites, picnic areas, benches and their associated access shall be designed and located to minimize disturbance of wildlife and/or critical characteristics of the affected conservation area;
- D. All facilities shall be constructed with materials complementary to the surrounding environment;
- E. Trail facilities that parallel the shoreline may be located in the outer 25 percent of the buffer area; and,
 - 1. The width of commercial and public trails shall be consistent with Section 1020.06(1) of the Washington State Department of Transportation Design Manual, as amended.
 - 2. Private trails shall not exceed 4 feet in width,

- F. Except as provided in E. above, the width of commercial and public trails shall be consistent with Section 1020.06(1) of the Washington State Design Manual as it now exists or may hereafter be amended.
- G. Trails that provide direct shoreline access shall not exceed 4 feet in width and shall be kept to the minimum number necessary to serve the intended purpose; and
- H. Review and analysis of a proposed trail facility shall demonstrate no net loss of ecological functions and values in conformance with this chapter.
- I. Trail facilities shall not be exempt from special report requirements, as may be required by this chapter.

I.040 Reference maps and inventories.

The distribution of critical areas within East Wenatchee are described and displayed in reference materials and on maps maintained by the Department. These reference materials, in the most current form, are intended for general information only and do not depict site-specific designations. They are intended to advise East Wenatchee staff, applicants and other participants in the development permit process that a resource land or critical area may exist and that further study, review and consideration may be necessary. These reference materials shall include but are not limited to the following:

A. Maps.

- 1. Natural Resource Conservation Service Soils Maps and Data, updated in 2007, as amended.
- 2. WSDOT/Douglas County Pit Sites, as amended.
- 3. Douglas County Steep Slopes Maps and Data, as amended.
- 4. Flood Insurance Rate Maps (1978, 1982 and 1985).
- 5. US Fish and Wildlife Service National Wetlands Inventory, as amended.
- 6. U.S.G.S. 7.5 Minute Series Topographic Quadrangle Maps.
- 7. Aerial photos.
- 8. WDFW Priority Habitats and Species and Wildlife Heritage Maps and Data, 2001, as amended.
- 9. WDNR Liquefaction Susceptibility and Site Class Maps.
- 10. Stream functional types developed using the USGS hydrology dataset and aerial photo interpretation of riparian vegetation presence by Chuck Jones, Alliance Consulting Group, Inc., 2007.

B. Documents.

- 1. Special reports, approved by the Review Authority and previously completed for the subject property may be used if the site conditions are the same as observed in the previously developed report. Wetland delineation reports older than five years typically need to be update in order to meet state and federal requirements.
- 2. The Flood Insurance Study for the Unincorporated Areas (1978, revised 1982).
- 3. Greater East Wenatchee Area Comprehensive Plan, as amended.
- 4. Douglas County Countywide Comprehensive Plan, as amended.
- 5. Douglas County Regional Shoreline Master Program, as amended.
- 6. Natural Resources Conservation Service Soil Survey -- Douglas County Soils Survey.
- 7. Federal Wetlands Delineation Manual (1987, as amended).
- 8. Washington State Wetlands Identification and Delineation Manual (WDOE #96-94, March 1997, as amended).

9. Washington State Wetlands Rating System for Eastern Washington-Revised (WDOE 04-06-015, as amended).
10. Wetlands Buffers: Use and Effectiveness (WDOE #92-10, as amended).
11. Management Recommendations for Washington's Priority Habitats and Species, May 1991, as amended.
12. Management Recommendations for Washington's Priority Habitats- Riparian, December 1997, as amended.
13. Priority Habitats and Species List, July 1999, as amended.
14. US Army Corps of Engineers. (2006). Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Wetlands Regulatory Assistance program, Environmental Lab ERDC/EL TRT-06-16, as amended.
15. Wetlands in Washington State- Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006.
16. Wetlands in Washington State- Volume 2: Guidance for Protecting and Managing Wetlands. Washington State Department of Ecology. Publication #05-06-008.

I.050 Disclosure.

The presence of any known or suspected critical areas on or within one hundred and fifty feet of property that is the subject of a development permit shall be identified by the applicant in the application materials submitted to East Wenatchee.

I.060 Review process.

Provisions of this chapter shall be considered and applied appropriately during development permit application reviews for projects and proposals within shoreline jurisdiction. Review of development within frequently flooded areas, fish and wildlife habitat conservation areas and wetlands and any associated buffers within shoreline jurisdiction that does not require a development permit application shall be subject to the provisions of Section I.090C of Appendix H.

I.070 Mitigation, maintenance, monitoring and contingency.

- A. Mitigation, maintenance, monitoring and contingency plans shall be implemented by the developer to protect resource lands, critical areas and their buffers as specified by each chapter of this title.
- B. The property owner shall be responsible for reporting to the Department and undertaking appropriate corrective action when monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or maintenance measures.

I.080 Surety.

The purpose of this section is to allow individuals developing property to post a performance assurance device in a sufficient amount to guarantee and warranty the construction of required improvements, and protect public property.

- A. All improvements shall be fully completed prior to the final approval of a development permit, land divisions, issuance of a certificate of occupancy or actual occupancy, as directed by applicable codes or regulations, unless an alternative performance assurance device, a contractual agreement, an agreement and partial funding for a local improvement district

(LID), or bond between the developer and the city has been executed and approved in accordance with this section.

- B. The performance assurance device shall be approved by the Administrator and/or the city engineer, as appropriate, and shall be in a form acceptable to the city attorney. Performance assurance devices shall take the form of one of the following:
 - 1. A surety bond executed by a surety company authorized to transact business in the state in a form approved by the city; or
 - 2. Cash.
- C. The performance assurance device shall be for a period of not more than one year for each phase of the development, unless a time schedule for the performance assurance device is approved by the review authority. The time period may be extended depending on the type of project and phasing schedule.
- D. The value of the device shall equal at least one hundred twenty-five percent of the estimated cost of the required improvements and shall be utilized by the city to perform any necessary work, to reimburse the city for performing any necessary work, and to reimburse the city for documented administrative costs associated with action on the device. If costs incurred by the city exceed the amount provided by the assurance device, the property owner shall reimburse the city in full, or the city may file a lien against the subject property for the amount of any deficit. If the amount of the bond or cash deposit exceeds the cost and expense incurred by the city, the remainder shall be released
- E. If a performance assurance device is employed, the property owner shall provide the city with a nonrevocable notarized agreement granting the city and its agents the right to enter the property and perform any required work remaining uncompleted at the expiration of the completion date(s) identified in the assurance device.

Upon completion of the required work by the property owner and approval by the city, at or prior to expiration of the completion date(s) identified in the assurance device, the city shall promptly release the device or evidence thereof.

I.090 Special reports.

- A. In order to maintain and protect critical areas, as well as to assist in classifying and designating such areas, site-specific environmental information will be required when evaluating a development proposal.
- B. Special reports shall be submitted for review and approval in conjunction with development applications when required by the review authority. Each section dealing with a specific resource or critical area contains a description of when special reports may be required.
- C. When no other application review process is required, final special reports shall be reviewed and approved in accordance with SMP Section 7, Section 3.020 or Section 3.030, as determined by the Administrator.

I.100 Special reports--Responsibility for completion.

The preparation of special reports or tests required by this chapter is the responsibility of the applicant. Costs incurred by the city to engage technical consultants or for staff review and interpretation of data and findings submitted by or on behalf of the developer or applicant shall be reimbursed by the applicant in accordance with a schedule adopted by the City Council.

I.110 Drainage and erosion control plan.

During project development the following standards apply:

- A. All drainage and erosion control plans shall be prepared by or under the direction of a professional engineer licensed to practice in Washington State.
- B. All drainage and erosion control plans shall address methods to minimize erosion and contain soil movement within the project boundaries during construction and to provide for stormwater drainage from the site and its surroundings during and after construction.
- C. All drainage and erosion control plans shall be prepared in conformance with the Stormwater Management Manual for Eastern Washington as adopted by East Wenatchee Municipal Code, as amended.

I.120 Geotechnical report.

- A. All geotechnical reports shall be prepared by a civil engineer licensed to practice in the State of Washington.
- B. A geotechnical report shall include a description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations on the suitability of the site to be developed. The report shall evaluate the actual presence of geologic conditions giving rise to the geologic hazard, and an evaluation of the safety of the proposed project, and identification of construction practices, monitoring programs and other mitigation measures necessary. A bibliography of scientific citations shall be included as necessary.
- C. The review authority may waive the requirement for the report if, in his/her opinion, the proposed development would not cause significantly adverse geological impacts, or there is adequate geological information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigating measures.

I.130 Grading and excavation plan.

All grading and excavation plans shall be prepared by a civil engineer licensed to practice in the State of Washington, and it shall contain the following information:

- A. A cover sheet showing the general vicinity and specific location of work, the name and address of the owner and the licensed civil engineer who prepared the plans;
- B. Property limits and accurate contours of existing ground and details of terrain and area drainage.
- C. Limits of proposed excavation and fill sites, finished contours and proposed drainage systems and/or facilities, including an estimated runoff served by the systems and/or facilities;
- D. Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures located on adjacent properties which are within fifteen feet of the property boundary;
- E. Recommendations included in any soils engineering report and/or an engineering geology report shall be incorporated in the grading plans or specifications.

I.180 Definitions.

The following terms shall have the following meanings when used in this chapter and in other places in this code unless another meaning is clear from the use of the term:

1. "Adaptive management program" is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty.
2. "Aquatic habitat" means habitat for fish and other aquatic organisms within bodies of water, particularly lakes, streams or rivers.
3. "Aquifer" means a porous water-bearing geologic formation generally restricted to materials capable of yielding ground water to wells or springs.
4. "Aquifer recharge areas" means those areas which serve as critical ground water recharge areas and which are highly vulnerable to contamination from intensive land uses within these areas.
5. "Aquifer sensitive area" means the area from which water runoff directly recharges the aquifer, including the surface over the aquifer itself, and the hillside areas immediately adjacent to an aquifer.
6. "Beach" means a nearly level stretch of pebbles and/or sand beside a body of water that may be artificially created or created by the action of the water.
7. "Bedding surface" means a surface, typically conspicuous, within a mass of stratified rock, representing an original surface of deposition; the surface of separation or interface between two adjacent beds of sedimentary or volcanic rock. If the surface is more or less regular or nearly planar, it is called a bedding plane.
8. "Bedrock" means a general term for the rock, typically hard, consolidated geologic material that underlies soil or other unconsolidated, superficial material.
9. "Best available science" is the information obtained from local, state or federal agencies for use in the development and implementation of critical area policies and regulations consistent with WAC 365-195-900 through WAC 365-195-925. This information may also be obtained through the use of a qualified professional to identify scientific information, determine best available science and assess its applicability.
10. "Biofiltration" means the process of reducing pollutant concentrations in water by filtering the polluted water through biological materials.
11. "Biologist" means an individual who has earned at least a Bachelor of Science degree in biological sciences from an accredited college or university, and has at least four years of professional experience as a biologist.
12. "Building envelope" means the area of a lot that delineates the limits of where a building(s) may be placed on a lot.
13. "Colluvium" means a general term applied to a loose mass of soil and rock that slowly creeps down slope and collects at the base of slopes.
14. "Consolidation" means a process whereby loosely aggregated, soft or liquid earth materials become firm and coherent rock.
15. "Constructed wetlands or watercourses" means those wetlands or watercourses which an applicant can demonstrate were intentionally created from non-wetland or non-watercourse sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention and retention facilities, wastewater treatment facilities, farm ponds and landscape amenities; and does not mean those wetlands and watercourses created through compensatory mitigation

16. "Critical areas" include the following areas and ecosystems:
 - a. Wetlands;
 - b. Aquifer recharge areas;
 - c. Frequently flooded areas (flood hazard areas);
 - d. Geologically hazardous areas; and
 - e. Fish and wildlife habitat conservation areas.
17. "Debris avalanche" means a rapid and sudden sliding or flow of rock materials; or the deposits of such materials.
18. "Earthflow" means a mass-movement landform and process characterized by down slope translation of soil and weathered rock over a discrete basal shear surface within well defined lateral boundaries. Earthflows grade into mudflows through a continuous range associated with increasing water contact.
19. "Ephemeral stream" means a stream that has flowing water only during and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.
20. "Erosion/sedimentation control" means any temporary or permanent measure taken to reduce air borne or water borne erosion; control siltation and sedimentation.
21. "Extraordinary hardship" means strict application of this chapter and/or programs adopted to implement this chapter by the city of East Wenatchee would prevent all reasonable economic use of the parcel.
22. "Farm ponds" are small water bodies whose initial creation was for use with an associated agricultural operation, such as irrigation for a crop. This does not include natural water bodies altered to serve an agricultural operation, such as dams created to artificially elevate a lake or pond, or on a perennial stream course.
23. "Fault" means a fracture or a zone of fractures along which there has been displacement of the sides relative to each other.
24. "Fault plane" means a fault surface that is more or less planar.
25. "Fish and wildlife habitat conservation" means land management for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times, but it does mean that cooperative and coordinated land use planning is critically important in the city.
26. "Flood hazard area" means an area of special flood hazard as defined in EWMC 15.44.080. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and the like and other areas in the floodplain of the city subject to a one percent or greater chance of flooding in any given year.
27. "Functions", "beneficial functions", or "functions and values" means the beneficial roles provided by critical areas which include, but are not limited to, water quality protection and enhancement; fish and wildlife habitat; food chain support; flood storage, conveyance, and attenuation (the slow release) of flood waters; ground water recharge and discharge; erosion control; wave attenuation; protection from natural hazards; historical, archaeological, and aesthetic value protection; and recreation.

28. "Geologist" means a practicing geologist licensed as a professional geologist pursuant to Chapter 18.22 RCW.
29. "Geologist, engineering geologist, or hydro-geologist" means an individual licensed as a geologist pursuant to Chapter 18.22 RCW.
30. Handling or processing of hazardous substances" means the use, dispensing, wholesaling, retailing, compounding, manufacture, storage, treatment or synthesis of hazardous substances in quantities greater than five gallons in volume per individual container.
31. "Hearing Body" means the planning commission, city council or hearing examiner.
32. "High intensity land use" means land uses which are associated with moderate or high levels of human disturbance or substantial wetland habitat impacts including, but not limited to, urban residential densities, active recreation uses, and commercial and industrial land uses.
33. "Holocene epoch" means an epoch of the Quarternary period, from the end of the Pleistocene, approximately 10,000 years ago, to the present time.
34. "In-kind compensation" means to replace critical areas with substitute areas whose characteristics and functions mirror those destroyed or degraded by a regulated activity.
35. "Improvements" means road grading or graveling, utility installation, recreational features, lot grading prior to building permit issuance, permanent plat and survey monuments, road pavement, curb and sidewalks, pedestrian ways, landscaping, and other required or necessary facilities.
36. "Intermittent stream" means a stream that has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.
37. "Intervening ownership" means a separate lot owned by one or more parties which because of its location severs another lot into multiple portions. Existing public road right-of-way encumbrances shall be considered an intervening ownership only as it relates to the bisection of a parcel of land.
38. "Invasive species" means a species that is 1) non-native (or alien) to Douglas County and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., microbes).
39. "Joint" means a surface of fracture or parting in a rock, without lateral displacement; the surface is usually planar and commonly occurs in groups to form a joint set.
40. "Joint system" means two or more groups of joint sets that intersect.
41. "Land alteration" means activities pertaining to the clearing or moving of land and earthwork, including compaction, excavation, grading, filling, stockpiling, striping and/or scarification of a site.
42. "Landslide hazard area" means an area subject to landslides based on a combination of geologic, topographic, and hydraulic factors. A landslide hazard area includes any area susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology or other factors. The other factors may include, but are not limited to the following:

- a. Areas designated as slumps, earth flows, mud flows, lahars, or landslides on maps published as the United States Geological Survey or Department of Natural Resources Division of Geology and Earth Resources;
 - b. Slope stability maps for East Wenatchee urban area, provided by the Department of Natural Resources Division of Geology and Earth Resources;
 - c. City of East Wenatchee critical areas inventory maps as the same exist now or may be hereafter developed and/or amended;
 - d. Areas with all the following characteristics, including slopes steeper than 15 percent, hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock, and springs or ground water seepage;
 - e. Any areas of old landslide deposits;
 - f. Slopes that are parallel or subparallel to planes of weakness, such as bedding planes, joint systems, and fault planes, in subsurface materials;
 - g. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action;
 - h. Areas that show evidence of, or are at risk from snow avalanches;
 - i. Areas located in a canyon, ravine or bluff; and
 - j. Any area with a slope of 35 percent or steeper and with a vertical relief of 10 or more feet.
43. "Low intensity land use" means land uses which are associated with low levels of human disturbance or low habitat impacts, including, but not limited to, passive recreation, open space, or forest management land uses.
44. "Mass wasting" (also known as "mass movement") means down slope movement of soil and rock material by gravity. This includes soil creep, erosion, and various types of landslides, not including bed load associated with natural stream sediment transport dynamics.
45. "Mine hazard area" means an area directly underlain by, adjacent to or affected by mine workings such as adits, tunnels, drifts or air shafts. Mine hazard areas may also include steep and unstable slopes created by open mines.
46. "Mineral resource area" means land that is not already characterized by urban growth and is of long-term commercial significance for the extraction of minerals, including: gravel, sand and valuable metallic substances.
47. "Mudflow" means a general term for a mass movement land form and a process characterized by a flowing mass of predominantly fine-grained earth material possessing a high degree of fluidity during movement. If more than half of the solid fraction of such a mass consists of material larger than sand size, the term debris flow is preferable. The water content of mudflows may range up to 60 percent; with increasing fluidity, mudflows grade into muddy floods; with less fluidity, mudflows grade into earth flows.
48. "Mudslide" means a relatively slow-moving mudflow in which movement occurs predominantly by sliding upon a discrete boundary shear surface.
49. "Natural drainage" means those channels, swales, and other non-manmade water conveyances and holding systems.

50. "Perennial stream" means a stream that has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
51. "Performance assurance" means a form of financial security posted to ensure timely and proper completion of improvements, compliance with the City of East Wenatchee Municipal Code, or to warranty materials, workmanship of improvements, design and performance. Performance assurances include assignments of funds, cash deposits, surety bonds, and/or other forms of financial security acceptable to the city attorney.
52. "Pyroclastic" means pertaining to clastic rock material formed by volcanic explosion or aerial expulsion from a volcanic vent.
53. "Pyroclastic flow" means hot clouds of ash, gas, and volcanic rock that flows rapidly down slope under gravity. These may flow at velocities up to 150 kilometers per hour. It is a synonym of ash flow, and may be projected from a laterally directed blast.
54. "Quaternary" means the second period of the Cenozoic era, following the Tertiary; also, the corresponding system of rocks. It began two to three million years ago and extends to the present. It consists of two grossly unequal epochs: the Pleistocene, up to about 10,000 years ago, and the Holocene since that time.
55. "Reach" means a segment of a watercourse with uniform characteristics.
56. "Review authority" means the person or persons responsible for the administration of the City of East Wenatchee development regulations. The review authority may be the administrator, building official, city engineer, director, fire marshal, Hearing Body, planning commission, city council or their appointed designee(s).
57. "River channel" means that area of the river environment lying riverward of the mean high water mark.
58. "Scientific information" is produced using a valid scientific process. The characteristics of the scientific process may include peer review, methods that can be replicated, contain logical conclusions and reasonable inferences, quantitative analysis, context and references.
59. "Slope" means:
 - a. Gradient; or
 - b. The inclined surface of any part on the earth's surface.
It is delineated by establishing its toe and top, and measured by averaging the inclination over at least 10 feet of vertical relief.
60. "Shore" means land at the edge of a body of water.
61. "Slope failure" means gradual or rapid down slope movement of soil or rock under gravitational stress.
62. "Slump" means a landslide characterized by a shearing and rotary movement of a generally independent mass of rock or earth along a curved slip surface by backward tilting of the mass. Slumps occur in unconsolidated materials and are often the result of undercutting or steepening of the slope.
63. "Soil" means the upper layers of ground, consisting of unconsolidated materials typically made up of broken and decomposed rock and decayed organic matter.

64. "Tephra" means a collective term for all size grades of particles of solidified magma blown out under gas pressure from a volcanic vent.
65. "Terrestrial species" means animals living on or in the ground, including arboreal creatures; not aquatic or aerial.
66. "Toxic" means poisonous, carcinogenic, or otherwise directly harmful to life.
67. "Watershed" means the total drainage area, separated by a ridgeline, which contributes runoff to a single point.
68. "Wharf" means a fixed platform that runs parallel to the shoreline.

CHAPTER IA FREQUENTLY FLOODED AREAS.

IA.010 Classification and designation.

IA.020 Regulation.

IA.010 Classification and designation.

Areas which are prone to flooding and which are identified in the Federal Emergency Management Administration Flood Insurance Rate Maps shall be subject to the requirements of this section.

IA.020 Regulation.

All development within areas of special flood hazard as identified in the Federal Emergency Management Administration Flood Insurance Rate Maps for the city of East Wenatchee shall be subject to the requirements of Chapter 15.44 EWMC Flood Hazard Areas in Appendix H.

CHAPTER 1B CRITICAL AREAS- WETLANDS

1B.010 Permitted uses and activities.

1B.020 Identification and rating.

1B.030 Designation.

1B.033 Criteria for wetland alterations.

1B.035 Wetland management and mitigation plan.

1B.040 Application requirements.

1B.050 General standards.

1B.060 Specific standards

1B.070 Variances.

1B.010 Permitted uses and activities.

Uses and activities allowed within designated wetlands or associated wetland buffers are those uses permitted by the Douglas County Regional Shoreline Master Program and the applicable zoning district, subject to the provisions of this chapter.

1B.020 Identification and rating.

- A. All wetlands shall be identified and delineated in East Wenatchee to reflect the relative function, value and uniqueness of the wetland using the Washington State Wetlands Identification and Delineation Manual (WDOE, March 1997, as amended); in conjunction with the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987, as amended); and the US Army Corps of Engineers. (2006). Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Wetlands Regulatory Assistance program, Environmental Lab ERDC/EL TRT-06-16, as amended.
- B. The following information sources should be used as guidance in identifying the presence of wetlands and the subsequent need for a wetland delineation study:
 1. Hydric soils, soils with significant soil inclusions, and "wet spots" identified within the Douglas County soil survey;
 2. National Wetlands Inventory;
 3. Previous wetland rating evaluation; and
 4. On-site inspection.
- C. The exact location of the wetland boundary shall be determined by the applicant through the performance of a field investigation applying the wetland definition provided in Chapter 8 of the SMP. A qualified professional shall perform wetland delineations using the "Washington State Identification and Delineation Manual". The wetland boundary shall be field staked by the biologist or qualified professional and surveyed by a land surveyor for disclosure on all major subdivision, short plat or binding site plan, maps, etc.
- D. The Administrator may waive the requirement for the survey for development if:
 1. The proposed development is not within three hundred feet of the associated wetlands; and
 2. There is adequate information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigating measures.

- E. The wetland boundary and any associated buffer area shall be identified on all major subdivision, short plat or binding site plans, maps, plans and specifications submitted for the project.
- F. The following system shall be used to rate, establish and administer buffer widths, and replacement ratios for wetlands. For a detailed explanation of this system, refer to Washington State Wetlands Rating System for Eastern Washington-Revised (WDOE 04-06-015, as amended).
 - 1. “Category I wetlands” can be described as the premium wetlands. Generally, these wetlands are not common and would make up a small percentage of the wetlands in the state. These are wetlands that: (1) are very valuable for a particular rare animal species; (2) represent a high quality example of a rare wetland type; (3) are rare habitat type within a given region; or, (4) provide irreplaceable functions and values which are impossible to replace within a human lifetime.
 - 2. “Category II wetlands” occur more commonly than Category I wetlands. They can be described as those wetlands that: (1) provide habitat for very sensitive or important wildlife or plants; (2) are either difficult to replace; or, (3) provide very high functions and values, particularly for wildlife habitat.
 - 3. “Category III wetlands” occur more frequently throughout the state than do Category I and Category II wetlands. Generally these wetlands will be smaller, less diverse and/or more isolated than Category II wetlands. These wetlands also provide important functions and values and are important for a variety of wildlife species. These wetlands would be difficult to replace.
 - 4. “Category IV wetlands” are smaller, more isolated and have less diverse vegetation than the other wetland categories. These wetlands do have important values and function, but could be replaced.
 - 5. Wetland rating categories shall be applied as the wetland exists on the date of adoption of the ordinance codified in this chapter; as the wetland may naturally change thereafter; or as the wetland may change in accordance with permitted activities. Wetland ratings shall not be altered to recognize illegal modifications
- G. An evaluation of any unrated wetland is necessary when there is a proposed development or activity to be located adjacent to, or within an area containing a wetland.

IB.030 Designation.

Sites classified in accordance with the provisions of IB.020 are designated as wetlands.

IB.033 Criteria for wetland alterations.

- A. Uses and activities may only be allowed in a wetland or wetland buffer if the applicant can show that the proposed activity will not degrade the functions, values, and functional performance of the wetland and other critical areas.
- B. Activities and uses shall be prohibited in wetlands and wetland buffers, except as provided in this Chapter.
- C. Type I Wetlands. Activities and uses shall be prohibited in Type I wetlands, except as provided for in the public agency and utility exemptions and variances sections of this Chapter.

- D. Type II and Type III Wetlands. For uses and activities proposed in Type II and II wetlands, the following standards shall apply:
 - 1. Water-dependent activities may be allowed where there are no practicable alternatives that would have a less adverse impact on the wetland, its buffer and other critical areas.
 - 2. Non-water- dependent activities are prohibited unless the applicant can demonstrate that:
 - a. The basic project purpose cannot reasonably be accomplished and successfully avoid, or result in less adverse impact on a wetland if the project was located on another site or sites in the vicinity of the proposal; and
 - b. Alternative designs for the project that would avoid or minimize the potential adverse impact on the wetland or its buffer such as a reduction in the size, scope; or density change in configuration are not feasible.
- E. Type IV Wetlands. Activities and uses that result in unavoidable and necessary impacts may be permitted in Type IV wetlands and associated buffers in accordance with an approved critical area report and mitigation plan, and only if the proposed activity is the only reasonable alternative that will accomplish the applicant's objective.

IB.035 Wetland management and mitigation plan.

- A. A wetland management and mitigation plan shall be required when impacts associated with development within a wetland or wetland buffer are unavoidable, demonstrated by compliance with IB.035(G).
- B. Wetland management and mitigation plans shall be prepared by a biologist or qualified professional who is knowledgeable of wetland conditions within North Central Washington.
- C. In determining the extent and type of mitigation appropriate for the development, the plan shall evaluate the ecological processes that affect and influence critical area structure, function and value within the watershed or sub-basin; the individual and cumulative effects of the action upon the functions and value of the critical area and associated watershed; and note observed or predicted trends regarding specific wetland types in the watershed, in light of natural and human processes.
- D. Where compensatory mitigation is necessary, the plan should seek to implement shoreline restoration objectives identified within the Douglas County Shoreline Restoration Plan.
- E. The wetland management and mitigation plan shall demonstrate, when implemented, that there will be no net loss of the ecological function and value of the wetland and buffer area.
- F. The wetland management and mitigation plan shall identify how impacts from the proposed project shall be mitigated, as well as the necessary monitoring and contingency actions for the continued maintenance of the wetland and its associated buffer.
- G. Mitigation sequence. When an alteration or impact to a critical area is proposed, the applicant shall demonstrate that all reasonable efforts have been taken to mitigate impacts in the following prioritized order:
 - I. Avoiding the adverse impact altogether by not taking a certain action or parts of an action, or moving the action.

2. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts.
3. Rectifying the adverse impact by repairing, rehabilitating or restoring the affected environment.
4. Reducing or eliminating the adverse impact over time through preservation and maintenance operations during the life of the action.
5. Compensating for the adverse impact by replacing, enhancing, or providing similar substitute resources or environments.
6. Monitoring the impact and taking appropriate corrective measures.

Mitigation for development may include a sequenced combination of the above measures as needed to achieve the most effective protection or compensatory mitigation for critical area functions and values.

- H. Mitigation ratios shall be used when impacts to wetlands and/or wetland buffers cannot be avoided. Compensatory mitigation shall restore, create, rehabilitate or enhance equivalent or greater wetland and wetland buffer functions. Mitigation shall be located onsite unless the biologist can demonstrate, and the City approves that onsite mitigation will result in a net loss of ecological function and value. If offsite mitigation measures are determined to be appropriate, offsite mitigation shall be located in the same watershed as the development, within East Wenatchee or Douglas County. The mitigation ratios (mitigation amount : disturbed area) by wetland type and buffer are:

Wetland Type I	6:1
Wetland Type II	3:1
Wetland Type III	2:1
Wetland Type IV	1.5:1
Wetland Buffer	1:1

Mitigation within wetland buffers for diverse, high quality habitat or offsite mitigation may require a higher level of mitigation. Wetland management and mitigation plans shall evaluate the need for a higher mitigation ratio on a site by site basis, dependent upon the ecological functions provided by the buffer area. Early consultation with resource agencies is encouraged. Recommendations by resource agencies in evaluating appropriate buffer mitigation shall be considered in the development of mitigation plans.

- I. The wetland management and mitigation plan shall contain a report that includes, but is not limited to, the following information:
1. Location maps, regional 1:24,000 and local 1:4,800;
 2. A map or maps indicating the boundary delineation of the wetland; the width and length of all existing and proposed structures, utilities, roads, easements; wastewater and stormwater facilities; the total area anticipated to be disturbed and adjacent land uses;
 3. A description of the proposed project including the nature, density and intensity of the proposed development and the associated grading, structures, utilities, etc., in sufficient detail to allow analysis of such land use change upon the identified wetland and wetland buffer;
 4. A detailed description of vegetative, faunal and hydrologic conditions, soil and substrate characteristics, and topographic features within and surrounding the wetland;

5. A detailed description of vegetative, faunal and hydrologic conditions, soil and substrate characteristics, and topographic features within any compensation site;
 6. A detailed description of the proposed project's effect on the wetland and wetland buffer, and a discussion of any federal, state or local management recommendations which have been developed for the area;
 7. A plan which explains how any adverse impacts created by the proposed development will be mitigated to ensure no net loss of ecological function and value. Methods may include, but are not limited to the following techniques:
 - a. Establishment of buffer zones,
 - b. Preservation of critically important plants and trees,
 - c. Limitation of access to the wetland area,
 - d. Seasonal restriction of construction activities,
 - e. Establishment of a monitoring program within the plan,
 - f. Drainage and erosion control techniques,
 - g. Direct lights away from the wetland and buffer,
 - h. Locate facilities that generate substantial noise away from the wetland and buffer,
 - i. Establish covenants limiting the use of pesticides within one hundred-fifty feet of the wetland,
 - j. Implement integrated pest management programs,
 - k. Post signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the City,
 - l. Plant buffer with native vegetation appropriate for the region to create screens or barriers to noise, light, human intrusion and discourage domestic animal intrusion,
 - m. Use low impact development where appropriate,
 8. A detailed discussion of on-going management practices which will protect the wetland after the project site has been fully developed, including proposed monitoring, contingency, maintenance and surety programs as provided for in IB.035(j).
 9. A narrative which addresses IB.035 (A) – (H).
- J. The following performance standards shall apply to compensatory mitigation projects:
1. Mitigation planting survival shall be 100% for the first year. Any vegetation that does not survive the first year must be replaced consistent with the mitigation planting scheme. The survival rate for successive years shall be at least 80%.
 2. Mitigation must be installed no later than the next growing season after completion of site improvements, unless otherwise approved by the Administrator.
 3. Where necessary, a permanent means of irrigation shall be installed for the mitigation planting that is designed by a professional experienced in the design and installation of irrigation systems. The design shall meet the specific needs of the wetland, riparian and shrub steppe vegetation, as may be applicable.
 4. A program outlining the approach for monitoring mitigation planting and for assessing a completed project shall be provided. Monitoring reports by the biologist must include verification that the planting areas have less than 20% total non-native /invasive plant cover consisting of exotic and/or invasive species. Exotic and invasive species may include any species on the state noxious weed list which may be

referenced on the web at www.wa.gov/agr and www.nwcb.wa.gov, or considered a noxious or problem weed by the Natural Conservation Services Department or local conservation districts.

5. A protocol shall be included in the monitoring program outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the compensation project. A monitoring report shall be submitted annually, at a minimum, documenting milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than 5 years where emergent wetlands or riparian vegetation are the desired plant communities. On-site monitoring and monitoring reports shall be submitted over a 10 year period (at years 1, 3, 5, 7 and 10) for those plans where shrub or forested plant communities are the goals for vegetation. Monitoring reports shall be submitted by a biologist or qualified profession, as defined by East Wenatchee Municipal Code. The biologist or qualified profession must verify that the conditions of approval and provisions in the wetland management and mitigation plan have been satisfied.
6. Mitigation sites shall be maintained to ensure that the mitigation and management plan objectives are successful. Maintenance shall include corrective actions to rectify problems, include rigorous, as-needed elimination of undesirable plants; protection of shrubs and small trees from competition by grasses and herbaceous plants, and repair and replacement of any dead plants.
7. Prior to site development and or building permit issuance, a performance surety agreement in conformance with 1.080, must be entered into by the property owner and the City of East Wenatchee. The surety agreement must include the complete costs for the mitigation and monitoring which may include but not be limited to: the cost of installation, delivery, plant material, soil amendments, permanent irrigation, seed mix, and 3 monitoring visits and reports by a biologist or qualified professional, including Washington State Sales Tax. East Wenatchee must approve the estimate for said improvements.
8. Sequential release of funds associated with the surety agreement shall be reviewed for conformance with the conditions of approval and the mitigation and management plan. Release of funds may occur in increments of 1/3 for substantial conformance with the plan and conditions of approval. If the standards that are not met are only minimally out of compliance and contingency actions are actively being pursued by the property owner to bring the project into compliance, the City may choose to consider a partial release of the scheduled increment. Non-compliance can result in one or more of the following actions: carry over of the surety amount to the next review period; use of funds to remedy the nonconformance; scheduling a hearing with the East Wenatchee Hearing Body to review conformance with the conditions of approval and to determine what actions may be appropriate.

IB.040 Application requirements.

Development permit applications shall provide appropriate information on forms provided by the review authority, including without limitation the information described below. Additional

reports or information to identify potential impacts and mitigation measures to wetlands may be required if deemed necessary.

Development within a wetland or its buffer shall provide the following information:

- A. Wetland boundary survey and rating evaluation pursuant to IB.020;
- B. Wetland management and mitigation plan pursuant to IB.035;

IB.050 General standards.

The following minimum standards shall apply to all development activities occurring within designated wetlands and/or their buffers.

- A. Use of wetlands and buffers. Wetlands and wetland buffers will be left undisturbed, unless the development proposal demonstrates that impacts to the wetland and/or buffer are unavoidable, demonstrated by compliance with IB.035(G)(7). Impacts must be addressed with appropriate mitigation and enhancement measures as determined on a site-specific basis in conformance with IB.035.
- B. Buffers. Appropriate buffer areas shall be maintained between all permitted uses and activities and the designated wetland. Provisions to identify the type of wetland and delineate its boundary are established in IB.020, and must be conducted by a biologist or qualified professional.
 - 1. The width of a wetland buffer, as measured from the wetland edge established in the approved wetland boundary survey, shall be as follows:

Wetland Type I	250 feet
Wetland Type II	200 feet
Wetland Type III	150 feet
Wetland Type IV	50 feet

- 2. Where a wetland is located within a riparian buffer, the buffer width, riparian or wetland, which provides the greatest degree of protection, shall apply.
 - 3. All buffers shall be measured from the wetland edge, as established by the approved wetland boundary survey.
 - 4. All buffer areas shall be temporarily fenced between the construction activity and the buffer with a highly visible and durable protective barrier during construction to prevent access and protect the designated wetland and associated buffer. The review authority may waive this requirement if an alternative to fencing which achieves the same objective is proposed and approved.
 - 5. Except as otherwise allowed, buffers shall be retained in their natural condition. Any habitat created, restored or enhanced as compensation for approved wetland alterations shall have the standard buffer required for the category of the created, restored or enhanced wetland.
- C. Increased buffer widths. The width of the buffer shall be increased by the review authority for a development project on a case-by-case basis when a larger buffer is necessary to protect the designated wetland function and value. The determination shall be based on site- specific and project-related conditions which include, without limitation:

1. The designated wetland is used for feeding, nesting and resting by species proposed or listed by the federal or state government as endangered, threatened, sensitive, candidate, monitor or critical; or if it is outstanding potential habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees;
 2. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts.
 3. The proposed development adjacent to the designated wetland would be a high intensity land use.
- D. General Standards for wetland decisions. Approval of modifications to buffers as provided in subsections E, F, G below shall only be granted if, as conditioned, the decision is consistent with the provisions of this chapter including the following
1. A proposed action avoids adverse impacts to regulated wetlands or their buffers or takes affirmative and appropriate measures to minimize and compensate for unavoidable impacts;
 2. The proposed activity results in no net loss to the function and value of the wetland;
 3. Denial of a permit would cause an extraordinary hardship on the applicant.
- E. Buffer width averaging. Standard buffer widths may be modified by the review authority for a development proposal by averaging buffer widths based on a report submitted by the applicant and prepared by a qualified professional approved by the Administrator. Buffer width averaging shall only be allowed where the applicant demonstrates all of the following:
1. Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;
 2. The designated wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation;
 3. The width averaging shall not adversely impact the designated wetland's functional value;
 4. The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging;
 5. The minimum buffer width of a Category I or II wetland shall not be reduced by more than 25 percent of the widths established under IB.050(B); or 75 feet, whichever is greater;
 6. The minimum buffer width of a category III or IV wetland shall not be reduced by more than 25 percent of the widths established under IB.050(B); 37.5 feet, whichever is greater;
 7. The wetland buffer has not been reduced under any other provisions of this chapter; and
 8. The variation of buffer widths on a site, via buffer width averaging, must be supported by best available science as demonstrated by the submittal and approval of a wetland management and mitigation plan in conformance with IB.035.

IB.060 Specific standards.

The following standards shall apply to the activity identified below, in addition to the general standards outlined in Section I.050 of Appendix H.

Appendix H East Wenatchee

- A. Developments which contain a wetland or wetland buffer on site shall comply with the following minimum standards:
1. All major subdivision, short plat or binding site plan shall disclose the presence on each residential lot one building site, including access, that is suitable for development and which is not within the designated wetland or its associated buffer;
 2. All designated wetland areas and their proposed buffers shall be clearly identified on all final major subdivision, short plat or binding site plan, maps, documents, etc.;
 3. Designated wetlands and their associated wetland buffers shall be designated and disclosed on the final major subdivision, short plat or binding site plan, maps, documents, etc., as critical area tracts, non-buildable lots and buffer areas or common areas. Ownership and control may be transferred to a homeowner's association or designated as an easement or covenant encumbering the property.
 4. All lots within a major subdivision, short plat or binding site plan shall have the outer edge of all required buffers clearly marked on site with permanent buffer edge markers. Buffer markers may be either buffer signs or steel posts painted with a standard color and label, as approved by the Administrator. The markers shall be field verified by the surveyor or biologist of record prior to final approval of the major subdivision, short plat or binding site plan. Each lot shall contain a minimum of three buffer area markers located at the landward edge of the buffer perimeter for each habitat type; one located at each side property line and one midway between side property lines. Covenants for the major subdivision, short plat or binding site plan shall incorporate a requirement stating that buffer area markers shall not be removed, or relocated, unless written approved is provided by the Administrator.
- B. Stream Crossings. Expansion or construction of stream crossings may be authorized within a designated wetland or wetland buffer, subject to the following minimum standards:
1. Bridges are required for streams which support salmonids;
 2. All crossings using culverts shall use superspan or oversize culverts;
 3. Crossings shall not occur in salmonid spawning areas unless no other feasible crossing site exists;
 4. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists;
 5. Crossings shall not diminish flood carrying capacity; and
 6. Crossings shall serve multiple properties whenever possible.
 7. Construction of sewer lines or on-site sewage systems within a designated wetland buffer which are necessary to meet state and/or local health code requirements shall not adversely impact the function and quality of the designated wetland buffer.
- C. Water dependant uses, as defined by this Program, may be located within a wetland or wetland buffer when the applicant or property owner can demonstrate compliance with Section 1B.035 of Appendix H.
Developments authorized within a wetland buffer shall comply with the following minimum standards:

1. Designated wetlands and their associated buffers shall be delineated and disclosed on final plats, maps, documents, etc., as critical area tracts, non buildable lots, buffer areas or common areas. Ownership and control may be transferred to a homeowner's association or designated as an easement or covenant encumbering the property.
2. All lots within a major subdivision, short plat or binding site plan shall have the outer edge of all required buffers clearly marked on site with permanent buffer edge markers. Buffer markers may be either buffer signs or steel posts painted with a standard color and label, as approved by the Administrator. The markers shall be field verified by the surveyor or biologist of record prior to final plat approval. Each lot shall contain a minimum of three buffer area markers located at the landward edge of the buffer perimeter for each habitat type; one located at each side property line and one midway between side property lines. Covenants for the subdivision shall incorporate a requirement stating that buffer area markers shall not be removed, or relocated, except as a may be approved by the Administrator.

IB.070 Variances.

Applicants who are unable to comply with the dimensional or performance standards of this chapter may seek relief in accordance with the variance standards of Section 6.8 Variances, in addition to satisfying the requirements identified below:

- A. The project includes mitigation for unavoidable critical area and buffer impacts, consistent with the requirements of Section IB.035 of Appendix H.
- B. The applicant can clearly demonstrate compliance with the avoidance and minimization standards established in IB.035(G) of Appendix H.

CHAPTER IC CRITICAL AREAS FISH AND WILDLIFE HABITAT CONSERVATION AREAS

IC.010 Permitted uses and activities.

IC.020 Identification.

IC.030 Designation.

IC.035 Habitat boundary survey.

IC.037 Fish/wildlife habitat management and mitigation plan.

IC.040 Application requirements.

IC.050 General standards.

IC.060 Specific standards.

IC.070 Variances.

IC.010 Permitted uses and activities.

Uses and activities allowed within designated habitat conservation areas are those uses permitted by the zoning district, subject to the provisions of this chapter.

IC.020 Identification.

- A. All fish and wildlife habitat conservation areas shall be identified by East Wenatchee to reflect the relative function, value and uniqueness of the habitat area as established through an approved habitat ranking evaluation submitted by the applicant for any development permit in accordance with the East Wenatchee Municipal Code. East Wenatchee may use the information sources in I.040 as guidance in identifying the presence of potential fish and wildlife habitat conservation areas and the subsequent need for a habitat boundary survey along with an on site inspection, if necessary.
- B. Fish and wildlife habitat conservation areas include:
1. Areas within which endangered, threatened, and sensitive species have a primary association;
 2. Habitats and species of local importance;
 3. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat;
 4. Waters of the state;
 5. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
 6. State natural area preserves and natural resource conservation areas;
 7. Riparian areas;
 8. Lakes 20 acres and greater in size with a water depth of 6' or greater;
 9. Intermittent and perennial streams; or.
 10. Priority habitats and species as identified by the Washington State Department of Fish and Wildlife Priority Habitats and Species Program.
- C. Identification and regulation of all wetlands, lakes 20 acres or greater in size with a depth less than 6', lakes under 20 acres in size, and ponds, shall be in accordance with Chapter IB Critical Areas- Wetlands.
- D. Identification and regulation of ephemeral or intermittent drainages which do not contain wetland or riparian habitat shall be in accordance with Chapter ID - Critical Areas— Geologically Hazardous Areas and Chapter 15.44 EWMC - Flood Damage Prevention.

- E. Identification and regulation of areas within the shoreline jurisdiction shall be in accordance with the provisions of the SMP.

IC.030 Designation.

All existing areas in East Wenatchee identified as stated in IC.020, as determined by the review authority, are designated as fish and wildlife habitat conservation areas.

In addition to existing fish and wildlife habitat conservation areas in East Wenatchee identified as stated in IC.020 the City may designate additional species, habitats of local importance, and/or wildlife corridors as follows:

- A. In order to nominate an area, species, or corridor to the category of Locally Important, an individual or organization must:
 - 1. Demonstrate a need for special consideration based on:
 - a. Declining population,
 - b. Sensitivity to habitat manipulation,
 - c. Commercial, recreational, cultural, or other special value, or
 - d. Maintenance of connectivity between habitat areas.
 - 2. Propose relevant management strategies considered effective and within the scope of this chapter;
 - 3. Identify effects on property ownership and use; and
 - 4. Provide a map showing the species or habitat location(s).
- B. Submitted proposals shall be reviewed by the City and may be forwarded to the State Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or Tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.
- C. If the proposal is found to be complete, accurate, and consistent with the purposes and intent of this chapter and the various goals and objectives of the current comprehensive plan, and the Growth Management Act, the City Council will hold a public hearing to solicit comment. Approved nominations will become designated locally important habitats, species, or corridors and will be subject to the provisions of this chapter.

IC.035 Habitat boundary survey.

- A. A wildlife habitat boundary survey and evaluation shall be conducted by a fish or wildlife biologist, as appropriate, who is knowledgeable of wildlife habitat within North Central Washington. The wildlife habitat boundary shall be field staked by the biologist and surveyed by a land surveyor for disclosure on all final major subdivision, short plat or binding site plan, maps, etc.
- B. The Administrator may waive the requirement for the survey for minor development if:
 - 1. The proposed development is not within the management area of the associated wildlife habitat according to available fish and wildlife information;
 - 2. There is adequate information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigating measures; and
 - 3. The applicant provides voluntary deed restrictions that are approved by the Administrator.

- C. The wildlife habitat boundary and any associated buffer shall be identified on all major subdivision, short plat or binding site plan, maps, plans and specifications submitted for the project.

IC.037 Fish/wildlife habitat management and mitigation plan.

- A. A fish/wildlife habitat management and mitigation plan shall be prepared by a biologist who is knowledgeable of fish and wildlife habitat within North Central Washington.
- B. In determining the extent and type of mitigation appropriate for the development, the plan shall evaluate the ecological processes that affect and influence critical area structure and function within the water shed or sub-basin; the individual and cumulative effects of the action upon the function and value of the critical area and associated watershed; and note observed or predicted trends regarding specific wetland types in the watershed, in light of natural and human processes.
- C. Where compensatory mitigation is necessary, the plan should seek to implement shoreline restoration objectives identified within the Douglas County Shoreline Restoration Plan.
- D. The fish/wildlife habitat management and mitigation plan shall demonstrate, when implemented, no net loss of ecological function and value of the habitat conservation area and buffer.
- E. The fish/wildlife habitat management and mitigation plan shall identify how impacts from the proposed project shall be mitigated, as well as the necessary monitoring and contingency actions for the continued maintenance of the habitat conservation area and any associated buffer.
- F. Mitigation sequence. When an alteration or impact to a critical area is proposed, the applicant shall demonstrate that all reasonable efforts have been taken to mitigate impacts in the following prioritized order:
 - 1. Avoiding the adverse impact altogether by not taking a certain action or parts of an action, or moving the action.
 - 2. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts.
 - 3. Rectifying the adverse impact by repairing, rehabilitating or restoring the affected environment.
 - 4. Reducing or eliminating the adverse impact over time by preservation and maintenance operations during the life of the action.
 - 5. Compensating for the adverse impact by replacing, enhancing, or providing similar substitute resources or environments and monitoring the adverse impact and the mitigation project and taking appropriate corrective measures.Mitigation for development may include a sequenced combination of the above measures as needed to achieve the most effective protection or compensatory mitigation for critical area function and value.
- G. Mitigation ratios shall be used when impacts to riparian areas, aquatic habitat, and riparian buffers are unavoidable. Compensatory mitigation shall restore, create, rehabilitate or enhance equivalent or greater ecological function and value. Mitigation shall be located onsite unless the biologist can demonstrate, and the City approves that onsite mitigation will result in a net loss of ecological functions. If offsite mitigation measures are determined

to be appropriate, offsite mitigation shall be located in the same watershed as the development, within East Wenatchee or Douglas County.

The onsite mitigation ratio shall be at a minimum ratio of 1:1 (mitigation amount : disturbed area). Mitigation for diverse, high quality habitat or offsite mitigation may require a higher level of mitigation. Mitigation and management plans shall evaluate the need for a higher mitigation ratio on a site by site basis, dependent upon the ecological functions and values provided by the habitat. Recommendations by resource agencies in evaluating appropriate mitigation shall be encouraged.

- H. The fish/wildlife habitat management and mitigation plan shall contain a report containing, but not limited to, the following information:
1. Location maps, regional 1:24,000 and local 1:4,800;
 2. A map or maps indicating the boundary of the habitat conservation areas; the width and length of all existing and proposed structures, utilities, roads, easements; wastewater and stormwater facilities; and adjacent land uses;
 3. A description of the proposed project including the nature, density and intensity of the proposed development and the associated grading, structures, roads, easements, wastewater facilities, stormwater facilities, utilities, etc., in sufficient detail to allow analysis of such land use change upon the habitat conservation area;
 4. A detailed discussion of surface and subsurface hydrologic features both on and adjacent to the site where the review authority determines appropriate;
 5. A description of the vegetation in the habitat conservation area, on the overall project site and adjacent to the site;
 6. A detailed description of the proposed project's effect on the habitat conservation area, and a discussion of any federal, state or local management recommendations which have been developed for the species or habitats in the area;
 7. A plan, by the applicant, which explains how any adverse impacts created by the proposed development will be mitigated to ensure no net loss of ecological function and value. Methods may include, but are not limited to the following techniques:
 - a. Establishment of buffer zones,
 - b. Preservation of critically important plants and trees,
 - c. Limitation of access to the habitat conservation area,
 - d. Seasonal restriction of construction activities,
 - e. Establishment of a timetable for periodic review of the plan;
 - f. Direct lights away from the habitat conservation area and buffer,
 - g. Locate facilities that generate substantial noise away from the habitat conservation area and buffer,
 - h. Establish covenants that limit the use of pesticides within the buffer or habitat area,
 - i. Implement integrated pest management programs,
 - j. Post signs at the outer edge of the habitat conservation area or buffer to clearly indicate the location of the critical area according to the direction of the City,
 - k. Plant buffer with native vegetation appropriate for the region to create screens or barriers to noise, light, human intrusion and discourage domestic animal intrusion,
 - l. Use low impact development where appropriate.
 - m. Application of management recommendations developed by the Washington State Department of Fish and Wildlife through its Priority Habitat Species Program.

8. A detailed discussion of on-going management practices which will protect the habitat conservation area after the project site has been fully developed, including proposed monitoring, contingency, maintenance and surety programs as provided for in IC.037(I).
9. A narrative which addresses IC.037 A) – (G0).
- I. The following performance standards shall apply to compensatory mitigation projects:
 1. Mitigation planting survival will be 100% for the first year, and 80% for each of the 4 years following.
 2. Mitigation must be installed no later than the next growing season after completion of site improvements, unless otherwise approved by the Administrator.
 3. Where necessary, a permanent means of irrigation shall be installed for the mitigation planting that is designed by a professional experienced in the design and installation of irrigation systems. The design shall meet the specific needs of riparian and shrub steppe vegetation.
 4. Monitoring reports by the biologist must include verification that the planting areas have less than 20% total non-native /invasive plant cover consisting of exotic and/or invasive species. Exotic and invasive species may include any species on the state noxious weed list which may be referenced on the web at, www.wa.gov/agr and www.nwcb.wa.gov, or considered a noxious or problem weed by the Natural Conservation Services Department or local conservation districts.
 5. Onsite monitoring and monitoring reports shall be submitted to East Wenatchee Community Development Department 1 year after mitigation installation; 3 years after mitigation installation; and 5 years after mitigation installation where emergent wetlands or riparian vegetation are the desired plant communities. On-site monitoring and monitoring reports shall be submitted over a 10 year period (at years 1, 3, 5, 7 and 10) for those plans where shrub or forested plant communities are the goals for vegetation. Monitoring reports shall be submitted by a biologist or qualified professional, as defined by East Wenatchee Municipal Code. The biologist or qualified professional must verify that the conditions of approval and provisions in the fish and wildlife management and mitigation plan have been satisfied.
 6. Mitigation sites shall be maintained to ensure that the mitigation and management plan objectives are successful. Maintenance shall include corrective actions to rectify problems, include rigorous, as-needed elimination of undesirable plants; protection of shrubs and small trees from competition by grasses and herbaceous plants, and repair and replacement of any dead plants.
 7. Sequential release of funds associated with the surety agreement shall be reviewed for conformance with the conditions of approval and the mitigation and management plan. Release of funds may occur in increments of 1/3 for substantial conformance with the plan and conditions of approval. If the standards that are not met are only minimally out of compliance and contingency actions are actively being pursued by the property owner to bring the project into compliance, the City may choose to consider a partial release of the scheduled increment. Non-compliance can result in one or more of the following actions: carry over of the surety amount to the next review period; use of funds to remedy the nonconformance; scheduling a hearing with the East Wenatchee Hearing

Body to review conformance with the conditions of approval and to determine what actions may be appropriate.

8. Prior to site development and or building permit issuance, a performance surety agreement in conformance with Chapter 19.07 EWMC and I.080, must be entered into by the property owner and East Wenatchee. The surety agreement must include the complete costs for the mitigation and monitoring which may include but not be limited to: the cost of installation, delivery, plant material, soil amendments, permanent irrigation, seed mix, and 3 monitoring visits and reports by a biologist or qualified professional, including Washington State Sales Tax. East Wenatchee must approve the estimate for said improvements.

IC.040 Application requirements.

Development permit applications shall provide appropriate information on forms provided by the review authority, including without limitation the information described below. Additional reports or information to identify potential impacts and mitigation measures to fish and wildlife habitat conservation areas may be required if deemed necessary. Projects processed according to EWMC Titles 12, 13, 15, 16, and 17 within a fish or wildlife habitat conservation area or its buffer shall provide the following information:

- A. The location and dimensions of all existing and proposed buildings, roads and other improvements, and their physical relationship to the habitat conservation area;
- B. The location and type of any proposed buffers, including the identification of any other protective measures.
- C. Wildlife habitat boundary survey and ranking evaluation pursuant to IC.035;
- D. Habitat management and mitigation plan pursuant to IC.037;
- E. A drainage and erosion control plan pursuant to I.110; and
- F. A grading and excavation plan pursuant to I.130.

IC.050 General standards.

The following minimum standards shall apply to all development activities occurring within designated habitat conservation areas and their associated buffers.

- A. Habitat conservation areas and buffers will be left undisturbed, unless the development proposal demonstrates that impacts to the habitat conservation area and/or buffer are unavoidable, demonstrated by compliance with IC.037(F). Impacts must be addressed with appropriate mitigation and enhancement measures as determined on a site-specific basis in conformance with IC.037.
- B. Habitat Conservation Areas.
 1. Development occurring within a one thousand foot radius of a state or federal threatened, endangered, or sensitive species den, nesting, or breeding site, migration corridors or feeding areas of terrestrial species shall require a habitat management and mitigation plan.
 2. Cliff, cave and talus slope habitats shall have at least a fifty-foot buffer for safety and resource protection.
 3. Bald Eagles: an approved bald eagle management plan by the Washington Department of Fish and Wildlife meeting the requirement and guidelines of the Bald Eagle Protection

Rules, WAC 232-12-292, as amended, satisfies the requirements of a habitat management and/or mitigation plan.

4. Rocky Mountain Mule Deer Habitat: habitat connectivity and migration corridors for mule deer shall be considered in habitat management and/or mitigation plans.
5. Development in or over all surface waters shall require a habitat mitigation plan.
6. Riparian habitat area buffers:

- a. City of East Wenatchee

The table below shows the applicable buffer widths within the East Wenatchee City Limits for each shoreline designation.

Environment Designation	Feet
High Intensity	75
Urban Conservancy	150
Natural	150

- b. Pre-designation within the Greater East Wenatchee Urban Growth Area
The following table shows the applicable buffer widths for each designation as they will be applied to properties within the UGA when an annexation occurs. This table is intended to pre-designate environment designations and buffer widths in accordance with the provisions of WAC 173-26-150.

Environment Designation	Feet
High Intensity	75
Shoreline Residential	150
Urban Conservancy	150
Natural	150

- C. Appropriate buffer areas shall be maintained between all permitted uses and activities and designated habitat conservation areas.
 1. All buffers shall be measured from the habitat edge, as established by the approved habitat boundary survey. If no riparian habitat or its edge cannot be located, the buffers shall be measured from the OHWM.
 2. All buffer areas shall be temporarily fenced between the construction activity and the buffer with a highly visible and durable protective barrier during construction to prevent access and protect the designated habitat conservation area and associated buffer. The review authority may waive this requirement if an alternative to fencing which achieves the same objective is proposed and approved.
 3. Except as otherwise allowed, buffers shall be retained in their natural condition. Any habitat created, restored or enhanced as compensation for approved habitat alterations shall have the standard buffer required for the category of the created, restored or enhanced habitat.
 4. The width of the buffer shall be increased by the review authority for a development project on a case-by-case basis when a larger buffer is necessary to protect the designated habitat conservation area function and value. The determination shall be based on site-specific and project-related conditions, which include without limitation:
 - a. The designated habitat conservation area is used for feeding, nesting and resting by species proposed or listed by the federal or state government as endangered,

- threatened, sensitive, candidate, monitor or critical; or if it is an outstanding potential habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees;
- b. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse habitat impacts; and
 - c. The proposed development adjacent to the designated habitat conservation area would be a high intensity land use.

The increased width of the buffer must be determined by best available science as demonstrated by the submittal and approval of a fish and wildlife habitat conservation area management and mitigation plan in conformance with Section IC.037 of Appendix H to insure no net loss of ecological functions and values.

- 5. **Buffer Width Averaging.** Standard buffer widths may be modified by the review authority for a development proposal by averaging buffer widths based on a report, submitted by the applicant and prepared by a qualified professional approved by the Administrator (e.g. wildlife biologist), and shall only be allowed where the applicant demonstrates all of the following:
 - a. Averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;
 - b. The designated habitat conservation area contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation;
 - c. The width averaging shall not adversely impact the designated habitat conservation area's function and value;
 - d. The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging.
 - e. Offsite mitigation is required if the buffer area is smaller than normally required in order to accommodate small lot sizes or other special conditions.
 - f. For riparian buffers, the minimum buffer width shall not be less than 50 percent of the widths established under IC.040(B)(6); and
 - g. For riparian buffers, the buffer has not been reduced under any other provision of this chapter.
 - h. The variation of buffer widths on a site, via buffer width averaging, must be supported by best available science as demonstrated by the submittal and approval of a fish and wildlife habitat management and mitigation plan in conformance with IC.037.
- 6. **Administrative Buffer Width Reduction.** The Administrator shall have the authority to reduce buffer widths on a case-by-case basis, provided that the general standards for avoidance and minimization per IC.037(F) shall apply, and when the applicant demonstrates to the satisfaction of the Administrator that all of the following criteria have been met:
 - a. The buffer reduction shall not adversely affect the habitat function and value of the riparian area or other critical area.
 - b. The maximum buffer width reduction allowed shall not exceed 25 percent.
 - c. The buffer width reduction is contingent upon the submittal and approval of a fish and wildlife habitat management and mitigation plan in conformance with IC.037.

IC.060 Specific standards.

The following standards shall apply to the activity identified below, in addition to the general standards outlined in IC.050.

- A. Stream Crossings. Expansion or construction of stream crossings may be authorized within a designated habitat conservation area and buffer, subject to the following minimum standards:
 - 1. Bridges are required for streams which support salmonids;
 - 2. All crossings using culverts shall use superspan or oversize culverts;
 - 3. Crossings shall not occur in salmonid spawning areas unless no other feasible crossing site exists;
 - 4. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists;
 - 5. Crossings shall not diminish flood carrying capacity; and
 - 6. Crossings shall serve multiple properties whenever possible.
 - 7. Construction of sewer lines or on-site sewage systems within a designated wetland buffer which are necessary to meet state and/or local health code requirements shall not adversely impact the function and quality of the designated wetland buffer.
- B. Water dependent uses, as defined by this Program, may be located within a habitat conservation area or buffer when the applicant or property owner can demonstrate compliance with Section IC.037 of Appendix H.
- C. Developments authorized within a designated habitat conservation area or buffer shall comply with the following minimum standards:
 - 1. A habitat management and mitigation plan shall be required.
 - 2. Designated habitat conservation areas and their associated buffers shall be delineated and disclosed on final major subdivision, short plat or binding site plan, maps, documents, etc., as critical area tracts, non buildable lots, buffer areas or common areas. Ownership and control may be transferred to a homeowner's association or designated as an easement or covenant encumbering the property.
 - 3. All lots within a major subdivision, short plat or binding site plan shall have the outer edge of all required buffers clearly marked on site with permanent buffer edge markers. Buffer markers may be either buffer signs or steel posts painted with a standard color and label, as approved by the Administrator. The markers shall be field verified by the surveyor or biologist of record prior to final major subdivision, short plat or binding site plan approval. Each lot shall contain a minimum of three buffer area markers located at the landward edge of the buffer perimeter for each habitat type; one located at each side property line and one midway between side property lines. Covenants for the subdivision shall incorporate a requirement stating that buffer area markers shall not be removed, or relocated, except as a may be approved by the Administrator.
- D. View Corridors.

The development or maintenance of view corridors can provide the general public and property owners of single family residences, opportunities for visual access to water bodies associated with shoreline lots. One view corridor may be permitted per lot, when consistent with the provisions of this Chapter. A mitigation and management plan consistent with IC.037 must be submitted for review and approval; either with a complete building permit application for a new single family residence or associated with an existing single family residence.

- I. In addition to the submittal of a complete mitigation and management plan, an applicant must submit the following materials:
 - a. A signed East Wenatchee Master Application form by the property owner of the shoreline proposed for vegetation alterations.
 - b. A scaled graphic which demonstrates a side, top and bottom parameter for the view corridor with existing vegetation and proposed alterations. The view corridor shall be limited to 25% of the width of the lot, or 25 feet, whichever distance is less.
 - c. A graphic and/or site photos for the entire shoreline frontage which demonstrates that the homesite and proposed or existing home does or will not when constructed have a view corridor of the water body, taking into account site topography and the location of shoreline vegetation on the parcel.
 - d. Documentation demonstrating that the applicant does not have an existing or proposed shoreline access corridor or dock access corridor.
2. Applications for view corridors must be consistent with the following standards:
 - a. Native vegetation removal shall be prohibited.
 - b. Pruning of native vegetation shall not exceed 30% of a tree's limbs and shrubs shall not be pruned to a height less than 6 feet. No tree topping shall occur. Pruning of vegetation waterward of the ordinary high water mark is prohibited.
 - c. Non-native trees should be preserved unless the mitigation and management plan demonstrates that the species or location would be detrimental to the functions and values of the habitat or pose a hazard to public safety.
 - d. Non-native vegetation within a view corridor may be removed when the mitigation and management plan can demonstrate a net gain in site functions, and where impacts are mitigated at a ratio of 2:1.
 - e. Whenever possible, view corridors shall be located in areas currently dominated with non-native vegetation and invasive species.
 - f. Pruning shall be done in a manner that ensures the continued survival of vegetation.
 - g. The applicant's biologist shall clearly establish that fragmentation of fish and wildlife habitat will not occur as a result of the establishment of the view corridor, and that there is no net loss of site ecological functions.
 - h. View corridors are not permitted in the Natural Environment Designation.
 - i. A view corridor may be issued once for a property. No additional vegetation pruning for the view corridor is authorized except as may be permitted to maintain the approved view corridor from the re-growth of pruned limbs. Limitations and guidelines for this maintenance shall be established in the mitigation and management plan by the applicant's biologist, to be reviewed and approved by the Administrator
 - j. Sites which have utilized the provisions of Section IC.060(D) or have had buffer widths reduced or modified, (buffer width averaging or administrative reduction), or by any prior action administered by the City shall not be eligible to use the provisions of this section. Sites which utilize this provision are not eligible for any future buffer width reductions under any provision of this Program, except as administered under Section IC.070 Variances, of this Program.
- E. Shoreline Restoration/Enhance & Shoreline Access. Shoreline restoration/enhancement of degraded or limited function shoreline areas shall be encouraged consistent with the Douglas County Shoreline Restoration Plan, Appendix B. Where appropriate, opportunities for enhanced shoreline access, use and enjoyment may be offered as incentives to shoreline

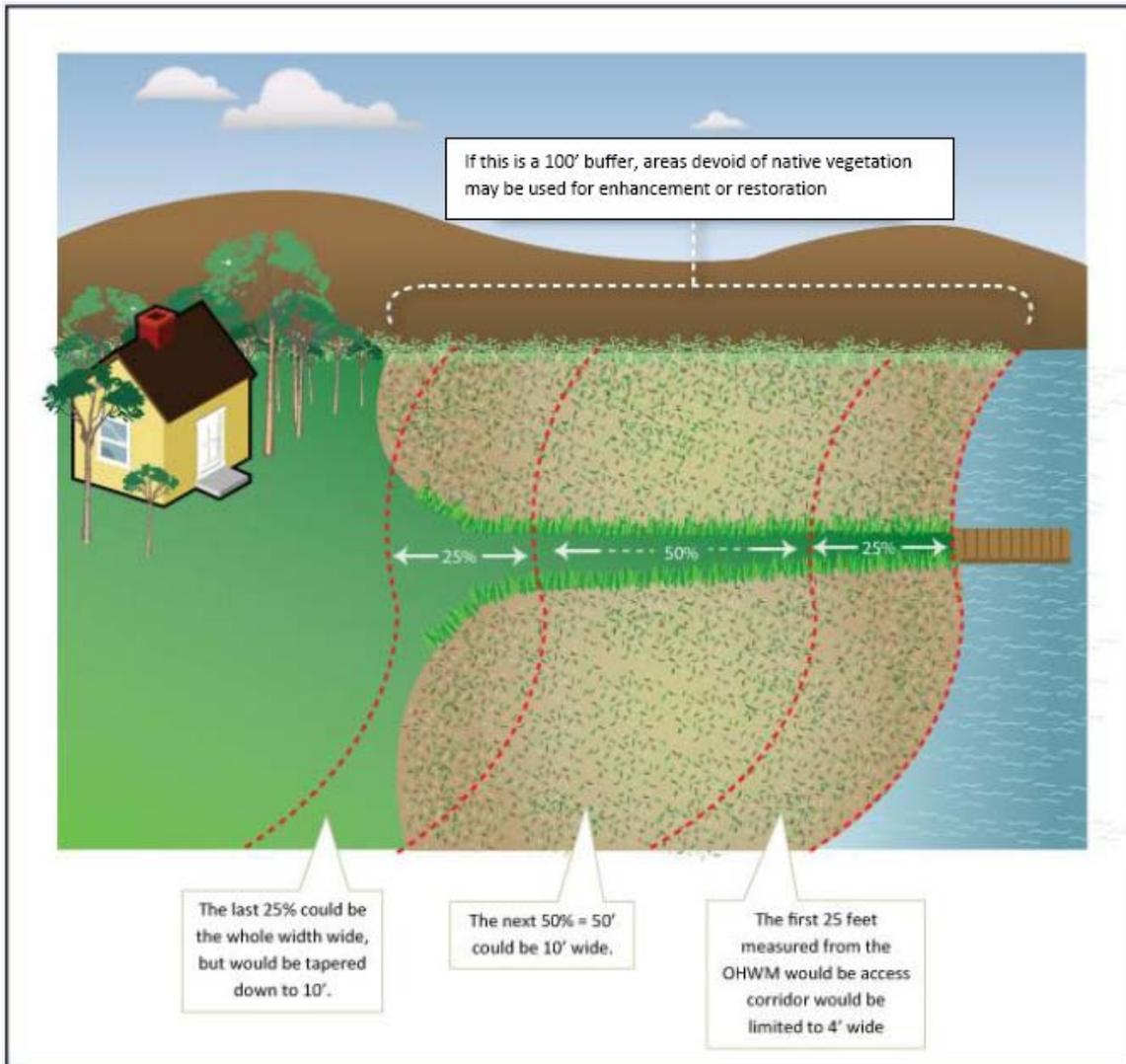
property owners to restore or enhance the functions of shoreline habitat. Access corridors provide physical access to the shoreline and water.

The access corridor and restoration/enhancement opportunity provided in this Section applies only to that portion of the shoreline zone that falls within the riparian buffer. The application of this Section is to limited functioning shorelines and is not appropriate for shorelines with diverse habitat or functions. Shoreline restoration/enhancement and access plans must address the following standards and provide the following application materials:

1. A Fish/Wildlife Habitat Management and Mitigation Plan shall be prepared pursuant to IC.037 for the access corridor and restoration/enhancement plan. The mitigation plan shall demonstrate that the proposed restoration/enhancement plan shall result in a net increase in function of the shoreline.
2. Where consistent with the provisions of this Chapter, one single access corridor per lot within the buffer may be permitted through the implementation of a restoration/enhancement plan. Multiple access points, whether existing or proposed, shall not be permitted by this Section. The restoration/enhancement plan shall provide mitigation for the installation of the access corridor within the buffer. The access corridor shall be installed in such a manner that prevents erosion and results in no net loss of functions and values of the shoreline.
3. The access corridor and restoration/enhancement may only be implemented along shorelines where the existing function of the shoreline will not be decreased and the implementation of the restoration/enhancement plan would result in a net increase in function. This provision is limited to low-functioning disturbed shorelines that can be significantly improved by the implementation of a restoration/enhancement plan consisting of trees, shrubs and groundcover.
4. The access corridor shall be designed to provide access through the buffer to an area where an existing use occurs (docks, boatlifts, swim areas, etc). If no existing use is established, the access corridor shall take into account the existing native vegetation, shoreline slope, and any proposed uses (dock). The installation of an access corridor and restoration/enhancement action shall avoid removing native vegetation, which shall be maintained and incorporated into the restoration/enhancement planting plan. Developed shoreline restoration/enhancement and access sites approved pursuant to this section, are not eligible for view corridor provisions identified in IC.060(D) or EWMC 18.12C.060(F).
5. An access corridor shall be permitted at the same time as other shoreline permits whenever possible.
6. Working from the ordinary high water mark (OHWM) toward the landward edge of the required buffer(s) found in IC.050(B)(6) the following shall apply:
 - a. The access corridor width shall be limited to a maximum of 4 feet within the first 25% of the required buffer as measured from OHWM. This area of the access corridor shall consist of native grasses or crushed rock.
 - b. The use of pesticides and fertilizers shall not be permitted within 50 ft of the OHWM. The width of the access corridor shall be tapered from 4 ft up to a width of 10 ft within the next landward 50% of the buffer. The intent is for the shoreline restoration design to provide for significant blocks of habitat in close proximity to the shoreline; avoiding areas of existing native vegetation; and tapering use areas

from a narrow access corridor at the OHWM to the widest point located at the most landward edge of the buffer area. Where it is not feasible to avoid existing vegetation, the access corridor shall be limited to 4 feet in width. This portion of the access path shall also consist of native grasses or crushed rock.

- c. The most landward 25% edge of the required buffer may include lawn grass, but applicants are encouraged to consider the use of native grass. Where lawn grass is planted in the access corridor area, measures shall be included to preclude the spread of the lawn grass into the restoration/enhancement areas or offsite to adjoining buffer areas.



- 7. No structures shall be constructed within the access corridor or buffer areas. Native grasses may extend to within 5 feet of the ordinary high water mark, as long as it can be installed in such a manner that prevents erosion.
- 8. Mitigation (restoration/enhancement plan) for the access corridor shall be provided through the planting of native vegetation within the buffer. The area of the buffer that shall be available for the access corridor and the restoration/enhancement area shall be only that area that is devoid of native vegetation. Within this area that is devoid of

native vegetation the ratio of mitigation to for installation of native grasses shall be 1:1, the ratio of installation of lawn grass shall be 2:1, the mitigation ratio for those areas where riparian or shrub steppe vegetation is removed shall be 2:1. In most cases the access corridor and the restoration/enhancement plan shall not encompass the entire buffer, as some native riparian and shrub-steppe species occur on most properties.

9. Prior to work on the property, the biologist of record shall verify that the boundaries of disturbance have clearly been demarcated by silt fencing straw bales or other approved temporary erosion and sediment control device. Written verification from the biologist of record shall be required prior to work commencing.
10. Areas designated for restoration/enhancement shall be cleared and grubbed and deconsolidated to a depth of at least 10 inches. Clearing and grubbing is defined as the removal of plant material, including the roots, which entails minimal ground disturbance. Restoration/enhancement areas soils shall be tested prior to planting to determine if soil amendments will be required. Soil testing shall be verified by invoices from the installing contractor. Importing of gravel and/or soil amendments shall also be subject to approval from the Chelan County PUD, if such importing occurs waterward of the Exhibit G or K line.
11. Native planting within the restoration/enhancement area shall be planted with trees (spaced 10 feet on center), shrubs (spaced 3-5 feet on center based on shrub size) and groundcover (grasses, forbes, etc). The restoration/enhancement plan must contain all three layers of vegetation and include both riparian and shrub steppe species.
12. Species composition shall be determined based on the size of the restoration/enhancement area. For areas less than 500 square feet a minimum of 2 species of trees and 4 species of shrubs shall be installed. For areas between 500 and 2,000 sq feet, a minimum of 3 species of trees and 6 species of shrubs shall be installed. For areas greater than 2,000 square feet, a minimum of 4 species of trees and 8 species of shrubs shall be installed.
13. This section shall not be applied in the Natural Environment Designation.
14. Sites which had buffer widths reduced or modified, (buffer width averaging or administrative reduction), or by any prior action administered by the City shall not be eligible to use the provisions of this section. Sites which utilize this provision are not eligible for any future buffer width reductions under any provision of this Program, except as administered under Section IC.070 Variances, of this Program.

IC.070 Variances

Applicants who are unable to comply with the dimensional or performance standards of this chapter may seek relief in accordance with the variance standards of Section 6.8 Variances, in addition to satisfying the requirements identified below:

- A. The project includes mitigation for unavoidable critical area and buffer impacts, consistent with the requirements of Section IC.037 of Appendix H.
- B. The applicant can clearly demonstrate compliance with the avoidance and minimization standards established in IC.037(F) of Appendix H.

Chapter 1D GEOLOGICALLY HAZARDOUS AREAS

ID.010 Permitted uses and activities.

ID.020 Classification.

ID.030 Designation.

ID.040 Determination process—Geologically hazardous area.

ID.010 Permitted uses and activities.

Uses and activities allowed within designated geologically hazardous areas are those uses permitted by the zoning district, subject to the provisions of this chapter.

ID.020 Classification.

- A. All geologically hazardous areas shall be classified by the city of East Wenatchee according to the level of risk associated with the hazardous area as established through an approved geologic hazard risk assessment and/or a geotechnical report submitted by the applicant in accordance with this Chapter. The city of East Wenatchee may use on-site inspections and the information sources identified in 1.040 as guidance in identifying the presence of potential geologically hazardous areas.
- B. Geologically hazardous areas in the city of East Wenatchee shall be classified according to the following system:
 1. Known or suspected risk;
 2. No risk; and
 3. Risk unknown.
- C. Any land containing soils, geology or slopes that meet any of the following criteria shall be classified as having a known or suspected risk of being geologically hazardous areas:
 1. Areas identified by the United States Department of Agriculture Natural Resources Conservation Service as having a “severe” rill and inter-rill erosion hazard;
 2. Areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Example of these may include, but are not limited to the following:
 - a. Areas of historic failures, such as:
 - (i) Those areas delineated by the United States Department of Agriculture Natural Resources Conservation Service as having a “severe” limitation for building site development;
 - (ii) Those areas mapped as class u (unstable), uos (unstable old slides), and urs (unstable recent slides) in the department of ecology coastal zone atlas; or
 - (iii) Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published as the United States Geological Survey or Department of Natural Resources division of geology and earth resources.
 - b. Areas with all three of the following characteristics:
 - (i) Slopes steeper than fifteen percent;
 - (ii) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

- (iii) Springs or ground water seepage;
 - c. Areas that have shown movement during the Holocene epoch or which are underlain or covered by mass wastage debris of that epoch;
 - d. Slopes that are parallel or sub-parallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;
 - e. Slopes having gradients steeper than eighty percent subject to rockfall during seismic shaking;
 - f. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action;
 - g. Areas that show evidence of, or are at risk from snow avalanches;
 - h. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
 - i. Any area with a slope of forty-five percent or steeper and with a vertical relief of ten or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical relief.
3. Areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, or surface faulting. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is primarily affected by:
- a. The magnitude of an earthquake;
 - b. The distance from the source of an earthquake;
 - c. The type of thickness of geologic materials at the surface; and
 - d. The type of subsurface geologic structure.
4. Other geological events:
- a. Volcanic hazard areas shall include areas subject to pyroclastic flows, lava flows, debris avalanche, inundation by debris flows, mudflows, or related flooding resulting from volcanic activity.
 - b. Mine hazard areas are those areas underlain by, adjacent to, or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts. Factors that should be considered include: Proximity to development, depth from ground surface to the mine working, and geologic material.

ID.030 Designation.

All existing areas of the city of East Wenatchee classified as stated in ID.020, as determined by the review authority, are designated as geologically hazardous areas.

ID.040 Determination process—Geologically hazardous area.

The City of East Wenatchee shall review each development permit application to determine if the provisions of this chapter shall be initiated. In making the determination, the City may use any resources identified in I.040, as well as any previously completed special reports conducted in the vicinity of the subject proposal. The following progressive steps shall occur upon a

determination by the City that a geologically hazardous area may exist on a site proposed for a development permit:

- A. Step One. The city of East Wenatchee staff shall determine if there is any possible geologically hazardous area on-site designated by ID.030. This determination shall be made following a review of information available and a site inspection if appropriate. If no hazard area is determined to be present, this chapter shall not apply to the review of the proposed development.
- B. Step Two. If it is determined that a geologically hazardous area may be present, the applicant shall submit a geologic hazard area risk assessment prepared by a qualified professional engineer or a geologist. The risk assessment shall include a description of the geology of the site and the proposed development; an assessment of the potential impact the project may have on the geologic hazard; an assessment of what potential impact the geologic hazard may have on the project; appropriate mitigation measures, if any; and a conclusion as to whether further analysis is necessary. The assessment shall be signed by and bear the seal of the engineer or geologist that prepared it. No further analysis shall be required if the geologic hazard area risk assessment concludes that there is no geologic hazard present on the site, nor will the project affect or be affected by any potential geologic hazards that may be nearby.
- C. Step Three. If the qualified professional preparing the risk assessment in step two concludes that further analysis is necessary, the applicant shall submit a geotechnical report consistent with the provisions of I.120.
- D. The geotechnical report shall include a certification from the engineer preparing the report, including the engineer's professional stamp and signature, stating all of the following:
 1. The risk of damage from the project, both on- and off-site is minimal;
 2. The project will not materially increase the risk of occurrence of the hazard; and
 3. The specific measures incorporated into the design and operational plan of the project to eliminate or reduce the risk of damage due to the hazard. All mitigation measures, construction techniques, recommendations and technical specifications provided in the geotechnical report shall be applied during the implementation of the proposal. The engineer of record shall submit sealed verification at the conclusion of construction that development occurred in conformance with the approved plans.
- E. A proposed development cannot be approved if it is determined by the geotechnical report that either the proposed development or adjacent properties will be at risk of damage from the geologic hazard, or that the project will increase the risk of occurrence of the hazard, and there are no adequate mitigation measures to alleviate the risks.

Chapter 1E AQUIFER RECHARGE AREAS

1E.010 Permitted uses and activities.

1E.020 Classification.

1E.030 Designation.

1E.040 Application requirements.

1E.050 General standards.

1E.060 Specific standards.

1E.010 Permitted uses and activities.

Uses and activities permitted within designated aquifer recharge areas are those that are authorized in the applicable zoning district, subject to the provisions of this chapter.

1E.020 Classification.

The city of East Wenatchee hereby adopts by reference the Douglas County Wellhead Protection Program. All aquifer recharge areas shall be classified by the city of East Wenatchee as any area located within the ten year capture zone identified in the Douglas County Wellhead Protection Program.

1E.030 Designation.

All existing areas of the City of East Wenatchee classified as stated in 1E.020, as determined by the review authority, are hereby designated as aquifer recharge areas. The provisions of this chapter are specific to the following described areas:

- A. Area B (19th Street Well field)- Commencing at the intersection of the Douglas County Boundary with a westerly extension of the south line of Government Lot 9 in Section 34, Township 23 North, Range 20 East, W.M., said point being the TRUE POINT OF BEGINNING FOR THIS DESCRIPTION. Thence easterly along said westerly extension to the shoreline of the Columbia River. Thence continuing easterly along the south line of said Government Lot 9 to the southeast corner of said Section 34. Thence easterly along the south line of Section 35, Township 23 North, Range 20 East, W.M. to an intersection with a southerly extension of the easterly line of Lot 56, East Wenatchee Land Company's (EWLC) Plat of Sections 34 and 35, Township 23 North, Range 20 East, W.M. Thence northerly along said southerly extension to the northeast corner of said Lot 56. Thence westerly along the north line of said Lot 56 to the northwest corner of said Lot 56 and the southwest corner of Lot 41, said EWLC plat. Thence northerly along the west line of said Lot 41 and Lot 40, said EWLC plat to the northwest corner of said Lot 40. Thence westerly to the southeast corner of Lot 32, said EWLC plat. Thence westerly along the south line of said Lot 32 and Lot 31, said EWLC plat, to the southwest corner of said Lot 31. Thence westerly along a westerly extension of the south line of said Lot 31 to the shoreline of the Columbia River. Thence continuing westerly along said westerly extension to the Douglas County Boundary. Thence southeasterly along said Douglas County Boundary to the TRUE POINT OF BEGINNING.
- B. Area C (Kentucky Street Well field)- Commencing at the intersection of the Douglas County Boundary with a southerly extension of the east line of Lot 364, East Wenatchee Land Company's (EWLC) Plat of Section 19, Township 22 North, Range 21 East, W.M., said point being the TRUE POINT OF BEGINNING FOR THIS DESCRIPTION. Thence

northerly along said southerly extension to the shoreline of the Columbia River. Thence continuing northerly along the east line of said Lot 36 and the east line of Lots 29, 20, 13 and 4, said EWLC plat of Section 19, to the northeast corner of said Lot 4. Thence northerly to the southeast corner of the Southwest quarter of the Southwest quarter of the Southeast quarter of Section 18, Township 22 North, Range 21 East, W.M. Thence northerly along the east line of the West half of the Southwest quarter of the Southeast quarter of said Section 18 to the northeast corner of the Northwest quarter of the Southwest quarter of the Southeast quarter of said Section 18. Thence westerly along the north line of said Northwest quarter of the Southwest quarter of the Southeast quarter to the northwest corner of said section subdivision. Thence westerly to the northeast corner of Lot 1, Block 4, Plat of Eden Orchard Tracts. Thence westerly along the north line of said Lot 1 to the northwest corner of said Lot 1. Thence northerly to the southeast corner of Lot 3, Block 1, said Plat of Eden Orchard Tracts. Thence northerly along the east line of said Lot 3 to the northeast corner of said Lot 3. Thence westerly along the north line of said Lot 3 to the northwest corner of said Lot 3. Thence westerly to the northeast corner of Lot 4, Block 2, said Plat of Eden Orchard Tracts. Thence westerly along the north line of said Lot 4 and Lot 3, Block 2, said Plat of Eden Orchard Tracts, to the northwest corner of said Lot 3. Thence southerly along the west line of said Lot 3 to the southwest corner of said Lot 3. Thence westerly to the northeast corner of Lot 49, East Wenatchee Land Company's (EWLC) Plat of Section 13, Township 22 North, Range 20 East, W.M. Thence westerly along the north line of said Lot 49 and Lot 50, said EWLC plat of Section 13, to the northwest corner of said Lot 50. Thence southerly along the west line of said Lot 50 to the southwest corner of said Lot 50 and the northeast corner of Lot 62, said EWLC plat of Section 13. Thence westerly along the north line of said Lot 62 and the north line of Lot 61, said EWLC plat of Section 13, to the northwest corner of said Lot 61. Thence southerly along the west line of said Lot 61 to the southwest corner of said Lot 61. Thence southerly to the northwest corner of the Northeast quarter of Section 24, Township 22 North, Range 20 East, W.M. Thence southerly along the west line of said Northeast quarter to the shoreline of the Columbia River. Thence continuing southerly along said west line to an intersection with the Douglas County Boundary. Thence southeasterly along said Douglas County Boundary to the TRUE POINT OF BEGINNING.

IE.040 Application requirements.

Development permit applications shall provide appropriate information on forms provided by the review authority. Additional special reports or information to identify potential impacts and mitigation measures to aquifer recharge areas may be required if deemed necessary by the review authority.

IE.050 General standards.

The following minimum standards shall apply to all development activities occurring within designated aquifer recharge areas.

- A. Development activities within an aquifer recharge area shall be designed, developed and operated in a manner that will not potentially degrade the City of East Wenatchee groundwater resources.

- B. Any changes in land use or type of new facilities where substances of moderate risk are used, stored, treated or handled; or which produce moderate risk waste shall be designed to prevent the release of any such materials into the groundwater.
- C. The following uses and activities shall be prohibited within a designated aquifer recharge area:
 - 1. The conversion of heating systems to fuel oil or the installation of new fuel oil heating systems;
 - 2. Accumulation of junk materials;
 - 3. Hazardous substance treatment, storage and disposal facilities;
 - 4. The negligent transportation of hazardous substances materials;
 - 5. Solid waste and inert debris landfills, transfer stations, recycling facilities;
 - 6. Petroleum product pipelines;
 - 7. Class I, II, III, IV and V underground injection wells, except 5D2 storm drainage wells, 5G30 special drainage wells and 5R21 aquifer recharge wells as identified by the federal Safe Drinking Water Act;
 - 8. Mineral extraction.

IE.060 Specific standards.

The following standards shall apply to the activity identified below, in addition to the general standards outlined in IE.050.

- A. Aboveground Storage Tanks or Vaults. Construction of an aboveground storage tank or vault, regardless of the storage capacity, for the storage of moderate substances or dangerous wastes as defined by WAC 173-303 may be authorized subject to the following standards:
 - 1. The design of the storage tank or vault shall include an impervious containment area enclosing or underlying the tank, which is large enough to contain one hundred twenty percent of the volume of the tank.
 - 2. Leak and release detection equipment shall be installed on all tanks and vaults.
- B. Underground Storage Tanks and Vaults. Construction of an underground storage tank or vault, regardless of the storage capacity, for the storage of moderate substances or dangerous wastes as defined by WAC 173-303 may be authorized subject to the following standards:
 - 1. The design of the storage tank or vault shall include an impervious containment area enclosing or underlying the tank, which is large enough to contain one hundred twenty percent of the volume of the tank.
 - 2. All storage tanks and vaults shall either be cathodically protected against corrosion, constructed of noncorrosive materials, or steel clad with noncorrosive materials.
 - 3. The lining of all tanks and vaults shall be compatible to the substance to be stored.
 - 4. Leak and release detection equipment shall be installed on all tanks and vaults.
- C. Stormwater Standards and Requirements for 5D2 "Stormwater Drainage Wells"; 5G30 "Special Drainage Wells" and 5R21 "Aquifer Recharge Wells" as Identified by the Federal Safe Drinking Water Act. All stormwater management facilities shall be designed and

constructed in conformance with the Stormwater Management Manual for Eastern Washington and standards adopted in the East Wenatchee Municipal Code.

1. Soil Infiltration.
 - a. Infiltration rates less than 2.4 inches per hour shall construct and maintain a pre-settling basin prior to discharge.
 - b. Infiltration rates greater than or equal to 2.4 inches per hour shall provide water quality treatment using best management practices (BMP) prior to discharging to unsaturated soils.
 2. Detention facilities shall be designed to reduce peak discharge and improve water quality.
 - a. Detention volumes are represented by the area between the pre-developed and developed hydrograph for the city design storm. The minimum required to be retained in the detention basin before outfall to a stormwater drywell shall not exceed a volume for a six-month twenty-four-hour storm.
 - b. Inlet and outlets placements shall be placed as far apart as possible to minimize short circuiting of the facility.
 - c. All detention basins shall have an emergency overflow so the facility will not be damaged if runoff is exceeded.
 3. Vegetated filter areas are vegetated channels that allow overland flow which effectively treats stormwater runoff.
 - a. Flow depths shall not exceed six inches in depth and the preferred slope is two to four percent. Check dams with a six to twelve inch vertical drop shall be installed for slopes of four to six percent.
 - b. The minimum length shall not be less than two linear feet.
 - c. The maximum cross section shall not exceed three horizontal units to one vertical unit (3:1).
 - d. The site shall be improved with a vegetative cover suitable for the filter area. Vegetation shall be permanently maintained in a manner acceptable to the city engineer.
 4. Operation and Maintenance.
 - a. The inlet flow spreader shall be kept free of leaves, rocks and other debris.
 - b. Biofilters planted in grasses shall be mowed regularly to promote growth and pollutant uptake.
 - c. Biofilters shall be periodically checked and sediments shall be removed by hand whenever sedimentation covers vegetation or begins to reduce the biofilter's capacity. Damaged areas shall be reseeded.
- D. Surface Impoundments. Surface impoundments, defined by Chapter 173-303 WAC, shall be designed by a professional engineer and constructed with an impermeable liner and other components as appropriate to prevent discharge of any material on the ground surface and/or into the groundwater system. Surface impoundments shall be designed and constructed in accordance with applicable governing law, and have a minimum excess

capacity equal to one hundred twenty percent of the projected volume of liquid to be contained including intentional and unintentional stormwater capture.

- E. Minor Developments. Minor developments are projects which are processed as Type IA actions according to EWMC 19.01.030(B). Such projects proposed within an aquifer recharge area shall comply with the following standards:
 - 1. Connection to a public sanitary sewer system or an approved community sewer system shall be required. If connection to sanitary sewer is not feasible, on-site septic systems proposed on lots of record legally existing on the date this chapter was enacted are permitted provided:
 - a. The type of on-site system is approved by the Chelan-Douglas health district upon finding that the design of the system will not be detrimental to the community water supply; and.
 - b. The property owner shall enter a no protest agreement with the Douglas County Sewer District, or other sanitary sewer provider as appropriate to the property location, agreeing to not protest the formation of a local improvement district for the extension of sanitary sewer. This agreement shall be recorded with the Douglas County auditor.
 - 2. The connection to an approved public water service shall be required.
- F. Major Developments. Major developments are projects which are processed as Types IB, IIA, IIB, III, IVA, IVA, and IVB according to EWMC 19.01.030(B). Such projects authorized within an aquifer recharge area shall comply with the following minimum standards:
 - 1. Connection to a public sanitary sewer system or a community sewer system approved by the Chelan-Douglas health district upon finding that the design of the system will not be detrimental to the community water supply shall be required.
 - 2. Connection to an approved public water system shall be required.
 - 3. All existing wells located on the subject property shall either be properly abandoned in accordance with the requirements of the Chelan-Douglas health district and the Department of Ecology or designated for irrigation purposes only. If an existing well is designated for irrigation purposes, then the following shall apply:
 - a. Evidence of a water right issued by the state of Washington for the use of the well shall be presented to the review authority. An application for a water right is not acceptable evidence of an actual right to appropriate water.
 - b. Certification from the public health officer stating that the well is properly constructed and sealed to prevent any contaminants from entering the wellhead shall be submitted to the review authority.
 - 4. Stormwater management facilities shall be designed and constructed in conformance with the Stormwater Management Manual for Eastern Washington and standards adopted in the East Wenatchee Municipal Code. The use of injection wells is prohibited in accordance with 1E.050(C) of this chapter.
 - 5. An analysis shall be conducted to assess the impact to groundwater quality from the potential of nitrate loading to the groundwater.
 - 6. Areas highly susceptible of transporting contaminants to the groundwater (i.e., natural drainages, springs, wetlands, etc.), as determined by the review authority, shall be

designated as open space. All impervious surfaces shall maintain a fifteen foot setback from areas identified as being highly susceptible and no amount of stormwater runoff shall be directed towards the susceptible area(s).

- G. Parks, Schools and Recreation Facilities. Fertilizer and pesticide management practices of schools, parks, other recreation facilities and similar uses shall use best management practices as prescribed by the Washington State University Cooperative Extension Services.
- H. All major and minor developments shall have an informational note placed on the face of plat stating "this subdivision is located within an aquifer recharge area. Best management practices shall be used for the containment of stormwater and the application of pesticides and fertilizers."

**Chapter 15.44 EWMC
FLOOD HAZARD AREAS**

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Article I. Statutory Authorization, Findings of Fact, Purpose, and Objectives

15.44.010 Statutory authorization.

The Legislature of the state of Washington has delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. (Ord. 05-04 § 1, 2005; Ord. 280 § 1.1, 1979)

15.44.020 Findings of fact.

A. The flood hazard areas of East Wenatchee 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. (Ord. 05-04 § 1, 2005; Ord. 280 § 1.2, 1979)

15.44.030 Statement of purpose.

It is the purpose of this chapter to promote the public health, safety, and general welfare of the citizens of the city and surrounding area. (Ord. 05-04 § 1, 2005; Ord. 280 § 1.3, 1979)

15.44.040 Methods of reducing flood losses.

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

- A. Restricting or prohibiting uses which are dangerous to general public health and safety 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 that unnaturally divert floodwaters or may increase flood hazards in other areas. (Ord. 05-04 § 1, 2005; Ord. 280 § 1.4, 1979)

Article II. Definitions

15.44.050 Appeal.

"Appeal" means a request for a review of the interpretation of any provision of this chapter or a request for a variance. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.060)

15.44.060 Area of shallow flooding.

"Area of shallow flooding" means a designated AO or AH zone on the Flood Insurance Rate Map (FIRM). AO zones have base flood depths that range from one to three feet above the natural ground; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized as sheet flow; AH indicates ponding, and is shown with standard base flood elevations. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.070)

15.44.070 Area of special flood hazard.

"Area of special flood hazard" is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.080)

15.44.080 Base flood.

"Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year (also referred to as the "100-year flood"). Designated on Flood Insurance Rate Maps by the letters A or V. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.090)

15.44.090 Basement.

"Basement" means any area of the building having its floor subgrade (below ground level) on all sides. (Ord. 05-04 § 1, 2005)

15.44.100 Breakaway wall.

"Breakaway wall" means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system. (Ord. 05-04 § 1, 2005)

15.44.110 Critical facility.

"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, and installations which produce, use, or store hazardous materials or hazardous waste. (Ord. 05-04 § 1, 2005)

15.44.120 Development.

"Development" means any manmade 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. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.100)

15.44.130 Elevation certificate.

"Elevation certificate" means the official form (FEMA Form 81-31) used to track development and provide elevation information necessary to ensure compliance with community floodplain management ordinances. (Ord. 05-04 § 1, 2005)

15.44.140 Elevated building.

"Elevated building" means, for insurance purposes, a nonbasement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns. (Ord. 05-04 § 1, 2005)

15.44.150 Existing manufactured home park or subdivision.

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the adopted floodplain management regulations. (Ord. 05-04 § 1, 2005)

15.44.160 Expansion to an existing manufactured home park or subdivision.

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads). (Ord. 05-04 § 1, 2005)

15.44.170 Flood or flooding.

"Flood" or "flooding" means 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. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.130)

15.44.180 Flood Insurance Rate Map (FIRM).

"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.140)

15.44.190 Flood Insurance Study (FIS).

"Flood Insurance Study (FIS)" means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary-floodway map, and the water surface elevation of the base flood. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.150)

15.44.200 Floodway.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.160)

15.44.210 Lowest floor.

"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 nonelevation design requirements of this chapter found at EWMC 15.44.510(B) (i.e., provided there are adequate flood ventilation openings). (Ord. 05-04 § 1, 2005; Ord. 421 § 1, 1987. Formerly 15.44.170)

15.44.220 Manufactured home.

"Manufactured home" means a single-family dwelling constructed after June 15, 1976, and in accordance with the U.S. Department of Housing and Urban Development (HUD) requirements for manufactured housing, bearing the appropriate insignia indicating such compliance and means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. (Ord. 05-04 § 1, 2005; Ord. 421 § 1, 1987. Formerly 15.44.110)

15.44.230 Manufactured home park or subdivision.

"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. (Ord. 05-04 § 1, 2005; Ord. 421 § 1, 1987. Formerly 15.44.120)

15.44.240 Mobile home.

"Mobile home" means all trailers of a type designed as facilities for human habitation constructed before June 15, 1976, and which are capable of being moved upon the public streets and highways and which are more than 35 feet in length or more than eight feet in width excluding modular homes. For the purpose of installation in the floodplain, a "manufactured home" and "mobile home" shall be treated the same. (Ord. 05-04 § 1, 2005)

15.44.250 New construction.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.190)

15.44.260 New manufactured home park or subdivision.

"New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations. (Ord. 05-04 § 1, 2005)

15.44.270 Recreational vehicle.

"Recreational vehicle" means a vehicle:

- A. Built on a single chassis;
- B. Four hundred square feet or less when measured at the largest horizontal projection;
- C. Designed to be self-propelled or permanently towable by a light duty truck; and
- D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. (Ord. 05-04 § 1, 2005)

15.44.280 Start of construction.

"Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the "actual start of construction" means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building. (Ord. 05-04 § 1, 2005; Ord. 421 § 1, 1987. Formerly 15.44.210)

15.44.290 Structure.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground. (Ord. 05-04 § 1, 2005; Ord. 421 § 1, 1987. Formerly 15.44.220)

Appendix H East Wenatchee

15.44.300 Substantial damage.

"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. (Ord. 05-04 § 1, 2005)

15.44.310 Substantial improvement.

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

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

B. The term can exclude:

1. Any project for improvement of a structure to correct pre-cited existing violations of state or local health, sanitary, or safety code specifications which have been previously identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.230)

15.44.320 Variance.

"Variance" means a grant of relief from the requirements of this chapter that permits construction in a manner that would otherwise be prohibited by this chapter. (Ord. 05-04 § 1, 2005; Ord. 280 § 2, 1979. Formerly 15.44.240)

15.44.330 Water dependent.

"Water dependent" means a structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations. (Ord. 05-04 § 1, 2005)

Article III. General Provisions

15.44.340 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the city of East Wenatchee. (Ord. 05-04 § 1, 2005; Ord. 280 § 3.1, 1979. Formerly 15.44.250)

15.44.350 Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administration on Flood Insurance Rate Maps (FIRMs) titled "City of East Wenatchee, Washington, Community-Panel Number 530038 0001 C, Effective Date: July 3, 1985," and "Douglas County, Washington, Community-Panel Number 5300380535 A, Effective Date: July 17, 1978," and any revisions thereto, including Letter of Map Revision (LOMR), effective April 14, 2000, are hereby adopted

by reference and declared to be a part of this chapter. The FIRMs and LOMR are on file at East Wenatchee City Hall, 271 9th Street NE, East Wenatchee, Washington. The best available information for flood hazard area identification as outlined in EWMC 15.44.420(B) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under EWMC 15.44.420(B). (Ord. 05-04 § 1, 2005; Ord. 421 § 2, 1987; Ord. 388 § 2, 1985; Ord. 280 § 3.2, 1979. Formerly 15.44.260)

15.44.360 Penalties for noncompliance.

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. Each noncompliance with or resistance to the enforcement of the provisions of this chapter shall be a separate misdemeanor offense and shall be punishable as such. Nothing contained in this chapter shall prevent the city, or the owner or owners of land within the city or affected by noncompliance with the provisions of this chapter from taking such other lawful action as is necessary to prevent or remedy any violation, including the institution of civil suit and/or injunction proceedings. (Ord. 05-04 § 1, 2005; Ord. 280 § 3.3, 1979. Formerly 15.44.270)

15.44.370 Abrogation and greater restrictions.

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. (Ord. 05-04 § 1, 2005; Ord. 280 § 3.4, 1979. Formerly 15.44.280)

15.44.380 Interpretation.

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.
- (Ord. 05-04 § 1, 2005; Ord. 280 § 3.5, 1979. Formerly 15.44.290)

15.44.390 Warning and disclaimer of liability.

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 manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city of East Wenatchee, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder. (Ord. 05-04 § 1, 2005; Ord. 280 § 3.6, 1979. Formerly 15.44.300)

Article IV. Administration

15.44.400 Establishment of development permit.

A. Development Permit Required. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in EWMC 15.44.350. The permit shall be for all structures including manufactured homes and mobile homes, as set forth in the definitions included in this chapter, and for all development including fill and other activities, also as set forth in the definitions included in this chapter.

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

1. Elevation, in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate (FF 81-31);
2. Elevation in relation to mean sea level to which any structure has been floodproofed;
3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet floodproofing criteria in EWMC 15.44.520;
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development. (Ord. 05-04 § 1, 2005; Ord. 421 § 3, 1987; Ord. 280 § 4.1, 1979. Formerly 15.44.310)

15.44.410 Designation of the local administrator.

The city code compliance officer is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. All references in this chapter to "administrator" refer to the "code compliance officer." (Ord. 05-04 § 1, 2005; Ord. 421 § 3, 1987; Ord. 280 § 4.2, 1979. Formerly 15.44.320)

15.44.420 Duties and responsibilities of the administrator.

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

- A. Permit Review.
 1. Review all development permits to determine that the permit requirements of this 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. If located in the floodway, assure that the encroachment provisions of EWMC 15.44.560(A) are met.
- B. Use of Other Base Flood Data. When base flood elevation data has not been provided (in A zones) in accordance with EWMC 15.44.350, Basis for establishing the areas of special flood hazard, the administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer EWMC 15.44.500, Specific standards, and EWMC 15.44.560, Floodways.

- C. Information to Be Obtained and Maintained.
 - 1. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in subsection B of this section, obtain and record the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement; recorded on a current elevation certificate (FF 81-31).
 - 2. For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in subsection B of this section:
 - a. Obtain and record the elevation (in relation to mean sea level) to which the structure was floodproofed;
 - b. Maintain the floodproofing certifications required in EWMC 15.44.400(B)(3).
 - 3. Maintain for public inspection all records pertaining to the provisions of this chapter.
- D. Alteration of Watercourses.
 - 1. Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
 - 2. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- E. Interpretation of FIRM Boundaries. Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (e.g., 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. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the National Flood Insurance Program. (Ord. 05-04 § 1, 2005; Ord. 421 § 4, 1987; Ord. 280 § 4.3, 1979. Formerly 15.44.330)

15.44.430 Variances procedure.

- A. Appeal Board.
 - 1. The hearing examiner, as established by the city council, shall hear and decide appeals and requests for variances from the requirements of this chapter.
 - 2. The hearing examiner shall hear and decide appeals when it is alleged there is an error in any requirement decision or determination made by the administrator in the enforcement or administration of this chapter.
 - 3. Those aggrieved by the decision of the hearing examiner, or any taxpayer directly affected by the decision, may appeal such decision to the Douglas County superior court, as provided in RCW 35A.63.110.
 - 4. In passing upon such applications, the hearing examiner 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.
5. Upon consideration of the factors of subsection (A)(4) of this section and the purpose of this chapter, the hearing examiner may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
6. The administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

B. Criteria.

- 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 small or irregularly shaped lot contiguous to and surrounded by lots with existing structures constructed below the base flood level. As the lot size increases, the technical justification required for issuing the variance increases.
- 2. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
- 3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- 4. Variances 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, 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 flood elevations should be quite rare.

6. 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 subsection (B)(1) of this section, and otherwise complies with EWMC 15.44.450, 15.44.470 and 15.44.480.

7. Any applicant to whom a variance is granted shall be given written notice that the permitted structure will be built with its lowest floor below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk.

C. Application Procedure.

1. Any person holding an equitable interest in any tract of land affected by this chapter may apply for a variance. Decisions of the administrator in the enforcement of this chapter may also be appealed by the same method by any aggrieved party.

2. Application for a variance or appeal of an administrative determination shall be processed pursuant to the requirements of this chapter, Chapter 17.88 EWMC and EWMC Title 19 as the same now exist or may be hereafter amended. (Ord. 05-04 § 1, 2005; Ord. 280 §§ 4.4-1, 4.4-2, 4.4-3, 1979. Formerly 15.44.340, 15.44.350 and 15.44.360)

Article V. Provisions for Flood Hazard Reduction

15.44.440 General standards.

In all areas of special flood hazards, the following standards are required. (Ord. 05-04 § 1, 2005; Ord. 280 § 5.1, 1979. Formerly 15.44.370)

15.44.450 Anchoring.

A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

B. All manufactured homes and mobile 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 frame ties to ground anchors. For more detailed information, refer to guidebook, FEMA-85, "Manufactured Home Installation in Flood Hazard Areas." (Ord. 05-04 § 1, 2005; Ord. 421 § 5, 1987; Ord. 280 § 5.1-1, 1979. Formerly 15.44.380)

15.44.460 Construction materials and methods.

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

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

C. 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. Locating such equipment below the base flood elevation may cause annual flood insurance premiums to be increased. (Ord. 05-04 § 1, 2005; Ord. 421 § 6, 1987; Ord. 280 § 5.1-2, 1979. Formerly 15.44.390)

15.44.470 Utilities.

- A. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
- B. Water wells shall be located on high ground that is not in the floodway;
- C. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- D. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. (Ord. 05-04 § 1, 2005; Ord. 280 § 5.1-3, 1979. Formerly 15.44.400)

15.44.480 Subdivision proposals.

- A. All subdivision proposals shall be consistent with the need to minimize flood damage;
- B. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
- C. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage;
- D. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less). (Ord. 05-04 § 1, 2005; Ord. 421 § 7, 1987; Ord. 280 § 5.1-4, 1979. Formerly 15.44.410)

15.44.490 Review of building permits.

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (EWMC 15.44.420(B)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above the highest adjacent grade in these zones may result in higher insurance rates. (Ord. 05-04 § 1, 2005; Ord. 421 § 8, 1987; Ord. 180 § 5.1-5, 1979. Formerly 15.44.420)

15.44.500 Specific standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in EWMC 15.44.350, Basis for establishing the areas of special flood hazard, or EWMC 15.44.420(B), Use of Other Base Flood Data. FEMA Technical Bulletin 11-01 including all of its provisions may be utilized to allow crawlspace construction for buildings located in the special flood hazard areas; however, use of this provision can result in a 20 percent increase in flood insurance premiums. The provisions in the remaining sections of this article are required. (Ord. 05-04 § 1, 2005; Ord. 280 § 5.2, 1979. Formerly 15.44.430)

15.44.510 Residential construction.

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

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

1. 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.
2. The bottom of all openings shall be no higher than one foot above grade.
3. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

C. Crawlspace are commonly used as a method of elevating buildings in SFHAs above the BFE. General NFIP requirements that apply to all crawlspaces that have enclosed areas or floors below the BFE include the following:

1. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required openings discussed below. Because of hydrostatic loads, crawlspace construction is not recommended in areas with flood velocities greater than five feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer.
2. 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 one foot above the lowest adjacent exterior grade. (For guidance on flood openings, see Technical Bulletin I-93, Openings in Foundation Walls.)
3. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottom of joists and all insulation above the BFE.

D. Any building utility systems within the crawlspace must be elevated above the 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.

E. In addition to the above requirements the following provisions apply to below-grade crawlspaces:

1. The interior grade of a crawlspace below the BFE must not be more than two feet below the lowest adjacent exterior grade (LAG).
2. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four feet at any point.
3. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles, or gravel or crushed stone drainage by gravity or mechanical means.

4. The velocity of floodwaters at the site should not exceed five feet per second for any crawlspace.
5. Below-grade crawlspace construction in accordance with the requirements listed above and FEMA Technical Bulletin 11-01 will not be considered basements. (Ord. 05-04 § 1, 2005; Ord. 421 § 8, 1987; Ord. 280 § 5.2-1, 1979. Formerly 15.44.440)

15.44.520 Nonresidential construction.

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

- A. Be 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;
- B. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- C. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this section 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 EWMC 15.44.420(C)(2)(b);
- D. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in EWMC 15.44.510(B). (Ord. 05-04 § 1, 2005; Ord. 421 § 8, 1987; Ord. 280 § 5.2-2, 1979. Formerly 15.44.450)

15.44.530 Manufactured homes.

All manufactured and mobile homes in the floodplain to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. (Ord. 05-04 § 1, 2005; Ord. 421 § 8, 1987; Ord. 280 § 5.2-3, 1979. Formerly 15.44.460)

15.44.540 Recreational vehicles.

Recreational vehicles placed on sites are required to either:

- A. Be on the site for fewer than 180 consecutive days; or
- B. Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
- C. Meet the requirements of EWMC 15.44.530 and the elevation and anchoring requirements for manufactured homes. (Ord. 05-04 § 1, 2005)

15.44.550 AE and AI-30 zones with base flood elevations but no floodways.

In areas with base flood elevations (but a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones AI-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and

anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. (Ord. 05-04 § 1, 2005)

15.44.560 Floodways.

Located within areas of special flood hazard established in EWMC 15.44.350 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris and increase erosion potential, the following provisions apply:

A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.

B. Construction or reconstruction of residential structures is prohibited within designated floodways, except for (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 50 percent of the market value of the structure either (a) before the repair or reconstruction is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or to structures identified as historic places, may be excluded in the 50 percent.

C. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V of this chapter, Provisions for Flood Hazard Reduction. (Ord. 05-04 § 1, 2005; Ord. 421 § 9, 1987; Ord. 280 § 5.3, 1979. Formerly 15.44.470)

15.44.570 Critical facility.

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the special flood hazard area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above the BFE or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible. (Ord. 05-04 § 1, 2005)