

Title 18
CRITICAL AREAS DEVELOPMENT
Chapters:

18.01 Maintenance, Enhancement and Preservation of Critical Areas

Chapter 18.01
MAINTENANCE, ENHANCEMENT AND PRESERVATION OF CRITICAL AREAS

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18.01.010 Purpose.

This chapter is intended to promote the maintenance, enhancement and preservation of critical areas and environmentally sensitive natural systems by avoiding or minimizing adverse impacts from construction and development. The city comprehensive plan and ordinance implements the goals and objectives of the state of Washington Growth Management Act of 1990, RCW Chapter 36.70A, through the development and implementation of policies in interim regulation to manage critical areas in the public's interest and welfare. It is not the intent of this chapter to deny a reasonable use of private property, but to assure that development on or near critical areas is accomplished in a manner that is sensitive to the environmental resource of the city.

(Ord. 1039 (part), 1996)

18.01.020 Goals.

In implementing the purposes stated above, it is the intent of this chapter to accomplish the following:

- A. To protect environmentally sensitive natural areas and the functions they perform by the careful and considerate regulation of development;
- B. To provide the maximum protection reasonable from the encroachment of changes in land use that would diminish the diversity of values or degrade the quality of wetlands located in the city;
- C. To recognize the importance of protecting aquifer recharge area. Due to the interrelatedness of the aquifer, population increases and environmental concerns, the city believes it is necessary to protect all aquifer recharge areas;
- D. To promote efficient use of land and water resources by allocating frequently flooded areas to the uses for which they are best suited and to discourage obstructions to flood-flows and uses which pollute or deteriorate natural waters and water courses;
- E. To reduce the threat posed to the health and safety of citizens when commercial, residential, or industrial development is located in areas of significant geologic hazard. In some cases, the risk to development from geological hazards can be reduced or mitigated to acceptable levels by engineering design, or modified construction practices. In areas in which these measures are not sufficient to reduce the risk from geological hazards, construction should be avoided;
- F. To minimize the negative impacts of erosion resulting from development and construction on erosion hazard areas in the city and thereby reduce the damage to the natural environment, as well as to other development;
- G. To protect the public from damage due to development on, or adjacent to, landslide hazard areas and to preserve the scenic quality and natural character of the city's hillsides and to thereby protect the city's water quality;
- H. To recognize the importance of protecting fish and wildlife habitat conservation areas and protect these resources and encourage enhancement of fish and wildlife habitats when

development influences are proposed;

- I. To implement the goals, policies, and requirements of the Growth Management Act of 1990, RCW Chapter 36.70A.

(Ord. 1039 (part), 1996)

18.01.030 Definitions.

"Agricultural lands of long-term commercial significance" are lands primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grains, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.133.140, or livestock, and that has long-term commercial significance for agricultural production.

"Agriculture" is the grazing and watering of livestock; plowing, seeding, cultivation, harvesting for the production of crops and pasture; soil and water conservation practices; the maintenance of farm or stock ponds, irrigation ditches, drainage ditches, underground drainage systems and farm roads, and the control of noxious weeds.

"Areas with a critical recharging effect on aquifers used for potable water" include areas where an aquifer which is an essential source of drinking water is vulnerable to contamination that would create a significant hazard to public health.

"Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year.

"Buffer" means an area which is an integral part of the stream or wetland ecosystem, or wildlife habitat. Buffers provide shading, input of organic debris, and other factors of a successful environment. A natural vegetative buffer is essential to the protection of these areas. Buffers also mean an area which provides a margin of safety and are necessary to minimize risk to public safety, health, welfare or property.

"Critical areas" include the following areas and ecosystems: (1) wetlands; (2) areas with a critical recharging effect on aquifers used for potable water; (3) fish and wildlife habitat conservation areas; (4) frequently flooded areas; and (5) geologically hazardous areas.

"Erosion" is the natural action to wear away by the forces of water, wind or glacial ice.

"Erosion hazard areas" are those geologically hazardous areas containing soils which may experience or have experienced a severe to very severe surface erosion process.

"Flood fringe" is the area between the floodway and the boundary of the one-hundred-year floodplain. The flood fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the one-hundred-year floodplain more than one foot at any point.

"Flood or flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from: (1) The overflow of water; and/or (2) the unusual and rapid accumulation of runoff or surface water from any source.

"Floodplain" means those lands or areas which are subject to a one percent or greater chance of flooding in any given year or within the one-hundred-year floodplain.

"Flood protection elevation" is considered under Chapter 15.24 to be one foot above the base flood elevation.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"Frequently flooded areas" means the one-hundred-year floodplain, which are lands subject to a one percent or greater chance of flooding in any given year.

"Geologically hazardous areas" means areas that because of their susceptibility to erosion, sliding, earthquake, or other geological event, are not suited to the siting of major commercial, residential, or industrial development consistent with public health or safety concerns without proper engineering consideration and design. The term commercial should not be construed to include natural resource activities.

"Groundwater" means all water that exists beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water, whatever may be the geological formation or structure in which such water stands, flows, percolates or otherwise moves.

"Habitats of local importance" are fish and wildlife habitat areas identified as having special significance to the community. Habitats of local importance may include a seasonable range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term.

"Landslide hazard areas" are geologically hazardous areas subject to severe risk of landslide based on a combination of geologic, topographic, and hydrologic factors, including bedrock, soil, slope gradient, slope aspect, geologic structure, groundwater, or other factors.

"Mine hazard areas" are geologically hazardous areas, directly underlain by, adjacent to, or affected by abandoned mine workings such as adits, tunnels, ducts or air shafts with the potential for creating large underground voids susceptible to collapse.

"Native vegetation" means plant species which are indigenous to the area or location in question.

"Plant, fish and wildlife habitat conservation areas" include: (1) riparian corridors; (2) habitats of local importance; and (3) habitats associated with protected species.

"Priority species" are those species which the state, in WAC 232-12, has designated as endangered, threatened, sensitive, candidate or monitored. They are wildlife species requiring protective measures for their perpetuation due to their population status, their sensitivity to habitat alteration, and/or their recreational importance.

"Riparian habitat" is an area adjacent to rivers, streams or lakes that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

"Seismic hazard areas" are geologically hazardous areas subject to risk of earthquake damage.

"Slope" means the natural or graded ground contour that forms a natural or artificial incline.

"Stream" is considered any natural flowing water body which is not an irrigation ditch or similar structure.

"Volcanic hazard areas" are geologically hazardous areas that are subject to inundation by pyroclastic flows, lava flows, inundation by debris flows, mudflows, lahars, or related flooding resulting from volcanic activity.

Wetlands. As defined in 36.70A.020 RCW, "wetland" or "wetlands" means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetland, if permitted by the county or city.
(Ord. 1039 (part), 1996)

18.01.040 Applicability.

A. General. This chapter applies to all designated or defined critical areas within the city.

B. Critical Areas Review. All development proposals in critical areas, whether on public or private property, shall comply with the requirements of this chapter. For purposes of this chapter, development proposals include any development project which would require any of the following:

1. Building permits for new construction;
2. Clearing, grading, or filling activity of fifty cubic yards;
3. Any shoreline management permit as authorized under Chapter 90.58 RCW;
4. Long subdivision, short subdivision, or planned unit development; and
5. Zoning code conditional use permits.

(Ord. 1039 (part), 1996)

18.01.050 Exemptions.

Exemptions to the provisions of this chapter:

A. Removal of plants that are on the state's noxious weed list;

B. Existing and On-Going Natural Resource Activities. The activities cease to be existing when the area on which they were constructed has been converted to a nonresource based

use;

- C. Activities involving artificially created habitat, including but not limited to grass-lined swales, irrigation structures and drainage ditches, farm ponds, detention facilities such as ponds, and landscape features, except for wetlands or habitat areas created as mitigation;
- D. Forest practices regulation conducted in accordance with the provisions of Chapter 76.09 RCW and forest practice regulations Title 222 WAC, and which are exempt from city jurisdiction;
- E. Reconstruction as a result of destruction by a natural disaster or disintegration over time, maintenance, or remodeling of structures provided that reconstruction, maintenance or remodeling does not involve an expansion of facilities when the structure's footprint is located within a critical area and/or its buffer;
- F. Maintenance and repair of utility and facility lines;
- G. Educational activities, scientific research and outdoor recreational activities;
- H. Emergencies that threaten the public health, safety and welfare.

(Ord. 1039 (part), 1996)

18.01.060 Special studies required.

When an applicant submits an application for a development proposal listed in Section 18.01.040 of this chapter, the application shall indicate whether a critical area(s) is located on the site. The city responsible official shall visit the site, and in conjunction with the review of the information provided by the applicant and any other suitable information, shall determine whether the application is complete and/or confirm the presence of critical areas. If it is determined that the application is insufficient to adequately evaluate the proposal or identify a critical area(s), the city responsible official shall notify the applicant that special environmental studies are required. Special environmental studies shall include a comprehensive site inventory and analysis, a decision of the potential impact(s) from the proposed development and specific measures designed to mitigate any potential adverse environmental impacts of the applicant's proposal, on and off-site.

(Ord. 1039 (part), 1996)

18.01.070 Identification of critical areas--Maps and reference material.

The critical areas maps are used as a general guide to the location and extent of critical areas. Critical areas indicated on the maps are presumed to exist in or near the location shown and are protected under all the provisions of this chapter. Critical areas may be found on site based on the definitions contained in this chapter and are protected under all the provisions of this chapter. The critical areas maps are also intended to alert the development community, and current and prospective landowners of the potential encounter with natural site constraints which may limit or cause alterations of development plans.

Critical areas are depicted generally on the following maps:

City of Cle Elum 100 Year Floodplain Map (Federal Emergency Management Agency's

Floodway map);

City of Cle Elum Wetlands Map (National Wetlands Inventory)

City of Cle Elum Geologic Hazards Map

City of Cle Elum Riparian Corridor Map Resources:

U.S.G.S. landslide activity and slope maps

U.S. Soil Survey's National Soils Survey Interpretations Handbook

Uniform Building Code Seismic Risk Zone maps

The Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989 edition)

Washington State Tier Wetlands Rating System

These maps shall be amended over time to accurately reflect changes in the critical areas. These maps are available for review in the City Hall of Cle Elum.
(Ord. 1039 (part), 1996)

18.01.080 Appeals.

A decision by the city council to approve, conditionally approve, or deny a permit, or to make any official interpretation in the administration of this chapter may be appealed to the city mayor. Such appeal shall be in writing and must be submitted to the city within ten days of the city council's decision.
(Ord. 1039 (part), 1996)

18.01.090 Agricultural lands of long-term commercial significance.

The Washington State Growth Management Act requires cities and counties to identify and protect agricultural lands of long-term commercial significance.

When considering the effects of proximity of Cle Elum's populated areas on the successful conservation of commercial agricultural lands, the following items were considered:

- A. Lot sizes are limited in size and not large enough for commercial agriculture or animal grazing;
- B. Commercial agriculture and livestock production are incompatible with urban and suburban growth. Conflicts arise such as noise and air quality, when both are allowed in the same area.

The city recognizes the need to conserve and protect prime agricultural land for our economic and nutritional needs. However, based on the above criteria, the city does not identify any agricultural lands of long-term significance.
(Ord. 1039 (part), 1996)

18.01.100 Forest lands of long-term commercial significance.

The Washington State Growth Management Act requires cities and counties to classify forest lands of long-term commercial significance. The classification of the forest lands is to be based upon the private forest land grades of the Department of Revenue (WAC 458-40-530). There are no such land grades within the city.

When considering the effects of proximity of Cle Elum's populated area on the successful conservation of forest lands, the following items were considered:

- A. The availability of public services and facilities conducive to the conversion of forest land would be cost prohibitive;
- B. The Proximity of Forest Land to Urban and Suburban Areas and Rural Settlement. Forest lands of long-term commercial significance are located outside the urban and suburban areas and rural settlements (located within an urban area);
- C. The compatibility and intensity of adjacent and nearby land use and settlement patterns with forest lands of long-term commercial significance (adjacent land uses of urban land use intensity);
- D. Property Tax Classification. Property is assessed as open space or forest land pursuant to Chapter 84.33 or 84.34 RCW;
- E. Local economic conditions which affect the ability to manage timberlands for long-term commercial production (judged not to be supportive in the long term); and
- F. History of Land Development Permits Issued Nearby. Development has been residential or commercial business.

In considering the above criteria, the city does not identify any forest lands of long-term commercial significance. However, those parcels of land that are currently forest are encouraged to remain forested for their environmental and open space benefits, as long as possible, before converting to urbanized uses.

(Ord. 1039 (part), 1996)

18.01.110 Mineral lands of long-term commercial significance.

The Washington State Growth Management Act requires cities and counties to identify mineral lands of long-term commercial significance.

When considering the effects of proximity of Cle Elum's populated areas on the preservation of mineral resource lands, the following items were considered:

- A. General land use patterns in the area have been residential and commercial business development;
- B. Availability and adequacy of water supply is low;

- C. Surrounding lot sizes are limited in size;
- D. Public roads and services would be burdened;
- E. Accessibility and/or distance from point of use would be cost prohibitive.

The city recognizes the commercial and economic value of mineral resource land and its long history with mining operations. However, based on the above criteria, the city does not identify any mineral lands of long-term commercial significance.

(Ord. 1039 (part), 1996)

18.01.120 Aquifer recharge areas.

Areas with critical recharging effect on aquifers used for potable water include areas where an aquifer is an essential source of drinking water and is vulnerable to contamination that would create a significant hazard to public health. Groundwater is not now the source of drinking water for Cle Elum residents; however, in the future it may be. The city does recognize that potable water is an essential sustainable element. Much of Washington's drinking water comes from underground water supplies. Once groundwater is contaminated, it is difficult, costly, and sometimes impossible to clean up. Preventing contamination is necessary to avoid exorbitant costs, hardships and potential physical harm to the public.

(Ord. 1039 (part), 1996)

18.01.130 Designation of aquifer recharge areas.

The city lies over Alluvial soil deposits. There are unconsolidated materials composed of silt, sand, and gravel, which in places are several hundred feet in depth. This deposit material is important as a water conveying unit and supplies the groundwater of stream flow (recharge). In general, areas of permeable soils in combination with geological transfer structures may be aquifer recharge areas.

Based on the information and maps contained in hydrology of the Upper Yakima River Basin and landscape planning, environmental applications, the city is designated as an aquifer recharge area. This is a preliminary determination until further studies of geology and hydrology are conducted to designate aquifer recharge areas.

(Ord. 1039 (part), 1996)

18.01.140 Design standards for aquifer recharge protection.

The following regulations shall apply to aquifer recharge areas in the city:

- A. The city should establish land use intensity limitations, particularly residential, in accordance with the availability of city sewer and water services. Cluster development is also encouraged.
- B. The city prohibits the disposal of hazardous materials (materials listed by the Washington State Department of Ecology, Kittitas County health department, and Kittitas County solid waste department) within aquifer recharge areas. Proposals which process, stockpile, store, receive, transport, discharge, or produce any chemical or organic product which may contaminate ground or surface water shall submit a hazardous materials plan,

in consultation with Kittitas County environmental health and solid waste department. At a minimum, the hazardous waste plan shall include:

1. A description of operations and identification of hazardous materials which may be used with the proposal;
 2. A description of how hazardous materials will be handled on-site;
 3. A description of containment for hazardous materials;
 4. A site map showing the location of the facility, property boundaries, locations of hazardous materials, and other features of the site;
 5. Secondary containment for waste water, fuels, and other materials deemed by the city to pose a significant adverse impact on ground or surface water;
 6. The use of monitoring to ensure that the hazardous materials do not leak or contaminate ground or surface water;
 7. The use of settling ponds, restrictions on off-site discharge, biofiltration or other methods deemed by the city and/or Kittitas County environmental health and solid waste department necessary to prevent a significant adverse impact on ground or surface water;
 8. Setbacks for materials considered by city and/or Kittitas County environmental health and solid waste department to pose a significant adverse impact on ground or surface water.
- C. Agricultural activities, including commercial and hobby farms, are encouraged to incorporate best management practices concerning animal keeping, animal waste disposal, fertilizer use, pesticide use, and stream corridor management.
- D. Fertilizer and pesticide management practices of schools, parks, and other nonresidential facilities that maintain large landscaped areas should be evaluated in relation to best management practices as recommended by the Washington State University Cooperative Extension Service.
- E. Within aquifer recharge areas, subdivisions, short plats and other divisions of land, shall be evaluated for impact of ground water quality. The following measures may be required as determined by the city council upon consultation with the Kittitas County environmental health department:
1. An analysis of the potential nitrate loading to the ground water may be required to assess the impact on ground water quality.
 2. Alternative site designs, phased development and/or ground water quality monitoring may be required to reduce contaminated loading where site conditions indicate that the proposed action will measurably, degrade ground water quality.

3. Open space may be required on development proposals overlying areas highly susceptible for contaminating ground water resources.
 4. When wells are required to be abandoned, the applicant shall ensure that they are abandoned according to the Washington State Department of Ecology requirements.
- F. All proposed development and annexations shall be required to connect to the city sanitary sewer system and water system.
- G. Underground fuel or storage tanks located within the critical recharge areas shall receive ground water monitoring provisions related to the development to continuously monitor ground water quality. The placement of underground fuel or storage tanks must comply with all applicable state and federal regulations.

(Ord. 1039 (part), 1996)

18.01.150 Fish and wildlife habitat conservation areas.

Preservation of fish and wildlife habitat is crucial to the protection of suitable environments for animal species and in providing a natural beauty and healthy quality of life for Cle Elum and its citizens. The conservation of habitat means active land management for maintaining species within their preferred habitats and accustomed geographic distribution. In this way, isolated subpopulations are not created which are more susceptible to predation, dislocation, and inadequate food supplies. Habitat protection does not require that all individuals of all species are protected, but does demand that land use planning be sensitive to the priority of saving and protecting animal-rich environments.

(Ord. 1039 (part), 1996)

18.01.160 Designation of riparian corridors.

Rivers and streams within the city are classified according to the state of Washington Department of Natural Resources water typing system. Rivers and streams provide essential movement corridors for a number of species. They are used by anadromous and resident game fish for spawning, rearing, migration and are used by salmonids for off-channel habitat. The classification and classification criteria for water types are as follows:

Type 2 Water. Segments of natural waters which are not classified as Type 1 water and have a high use and are important from a water quality standpoint for:

- A. Domestic water supply;
- B. Public recreation;
- C. Fish spawning, rearing or migration or wildlife uses; or
- D. Are highly significant to protect water quality.

Type 3 Water. Segments of natural waters which are not classified as Type 1 or 2 water and have a moderate to slight use and are moderately important from a water quality standpoint for:

- A. Domestic use;
- B. Public recreation;
- C. Fish spawning, rearing or migration or wildlife uses; or
- D. Have moderate value to protect water quality.

Type 4 Water. Segments of natural waters which are not classified as Type 1, 2, or 3 and for purpose of protecting water quality downstream are classified as Type 4 water upstream until the channel width becomes less than two feet in width between the ordinary high-water marks. Their significance lies in their influence on water quality downstream in Type 1, 2, and 3 waters. These may be perennial or intermittent.

Type 5 Water. All natural waters not classified as Type 1, 2, 3, or 4; including streams with or without well-defined channels, areas of perennial or intermittent seepage, ponds, natural sinks and drainage ways having short periods of spring or storm runoff.
(Ord. 1039 (part), 1996)

18.01.170 Buffer requirements for riparian corridors.

Buffer zones for rivers and streams shall be measured from the ordinary high-water mark (OHWM). Minimum stream buffer requirements are as follows:

- Type 2 -- 75 feet
- Type 3 -- 50 feet
- Type 4 -- 25 feet

(Ord. 1039 (part), 1996)

18.01.180 Riparian buffer averaging.

Riparian buffers may be modified by averaging buffer widths. Riparian buffer width averaging shall be allowed only where the applicant demonstrates that the following exists:

- A. That averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;
- B. That variations in sensitivity due to existing physical characteristics exist;
- C. That the proposed use would be located adjacent to areas where buffer width is reduced, and that such land-uses are low in impact;
- D. That width averaging will not adversely impact riparian habitat function and values.

(Ord. 1039 (part), 1996)

18.01.190 Natural condition of riparian buffer.

Riparian buffer areas shall be retained in their natural condition or may be improved to enhance

buffer functions and values. Where buffer disturbance has occurred during construction, revegetation with native vegetation shall be required. The Kittitas County noxious weed ordinance shall be adhered to. (Ord. 1039 (part), 1996)

18.01.200 Permitted uses in riparian corridors.

Permitted uses in buffer zones:

- A. Passive recreation;
- B. Pedestrian, bicycle, and interpretive trails;
- C. Public roads and utilities if demonstrated that no other reasonable alternative exists;
- D. Scientific research.

(Ord. 1039 (part), 1996)

18.01.210 Habitats of local importance.

Habitats of local importance may be designed when communities identify plant, fish and wildlife habitat areas as having special significance. Habitats of local importance may include a seasonal range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. At this time only one type of habitat of local importance has been identified. Other types may be added by amendment to this chapter. (Ord. 1039 (part), 1996)

18.01.220 Designation of ponds under twenty acres.

Adjacent to the Yakima River are abandoned gravel quarries which attract a variety of species for migrating, nesting, and breeding. This is due to the ponds' aquatic environment and proximity to the Yakima River corridor. Due to the ponds' status as man-made features, they do not receive adequate protection for wildlife under current state or local law. For this reason, the four ponds located on the north side of the Yakima River and south of the Interstate-90 corridor are designated as habitats of local importance.

(Ord. 1039 (part), 1996)

18.01.230 Buffer requirements for ponds under twenty acres.

Buffer zones for ponds under twenty acres shall be measured from the ordinary high-water mark (OHWM). Minimum buffer requirements are fifty feet.

(Ord. 1039 (part), 1996)

18.01.240 Buffer averaging for ponds under twenty acres.

Buffers may be modified by averaging buffer widths. Buffer width averaging shall be allowed only where the applicant demonstrates that the following exists:

- A. That averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;

- B. That variations in sensitivity due to existing physical characteristics exist;
- C. That the proposed use would be located adjacent to areas where buffer width is reduced, and that such land-uses are low in impact;
- D. That width averaging will not adversely impact buffer function and values.

(Ord. 1039 (part), 1996)

18.01.250 Natural condition of buffers for ponds under twenty acres.

Buffer areas shall be retained in their natural condition or may be improved to enhance buffer functions and values. Where buffer disturbance has occurred during construction, revegetation with native vegetation shall be required. The Kittitas County noxious weed ordinance shall be adhered to. (Ord. 1039 (part), 1996)

18.01.260 Permitted uses in buffers for ponds under twenty acres.

Permitted uses in buffer zones:

- A. Passive recreation;
- B. Pedestrian, bicycle, and interpretive trails;
- C. Public roads and utilities if demonstrated that no other reasonable alternative exists;
- D. Boat ramps, docks, floats;
- E. Wildlife enhancement projects;
- F. Scientific research;
- G. Public access sites.

(Ord. 1039 (part), 1996)

18.01.270 Designation of priority species.

Priority species are those species which the state, in WAC 232-12, has designated as endangered, threatened, sensitive, candidate, and monitored. They are wildlife species requiring protective measures for their perpetuation due to their population status, their sensitivity to habitat alteration, and/or their recreational importance. The areas to be protected under this chapter are limited to nesting sites, breeding areas, and migratory routes/destinations.

Critical 1 Species:	
Common Loon	SC
Golden Eagle	SC
Bald Eagle	ST
Northern Goshawk	SC
Peregrine Falcon	SE
Spotted Owl	SE

Flammulated Owl	SE
Vaux's Swift	SC
White Headed Woodpecker	SC
Lewis' Woodpecker	SC
Pileated Woodpecker	SC
Purple Martin	SC
Western Bluebird	SC
Western Grey Squirrel	C
Critical 2 Species:	
Mt. Sucker	SM
Pygmy Whitefish	SM
Great Blue Heron	SM
Osprey	SM
Black Backed Woodpecker	SM
Critical 3 Species:	
Bull Trout	GAME
Kokanee	GAME
Mt. Whitefish	GAME
Rainbow/Steelhead Trout	GAME
West Slope Cutthroat	GAME
Harlequin Duck	GAME
Cavity-Nesting Ducks	GAME
(Wood duck, Bufflehead, Common and Hooded Mergansers, Barrows Golden Eye)	
Lynx	GAME
Marten	GAME
Rocky Mt. Mule Deer	GAME
Elk	GAME

Criteria Codes:	
1 =	Species determined to be in danger of failing, declining, or vulnerable due to factors such as limited numbers, disease, predication, exploitation, or habitat loss or change. These are both state listed and state candidate species for endangered, threatened, and sensitive classification that occur in forest environments.
2 =	Uncommon species, including monitor species, occurring in forest environments and that may be affected by habitat loss or change.
3 =	Species in forest environment for which the maintenance of a stable population and surplus for recreation may be affected by habitat loss or change.

Status Codes:		
SE	=	State endangered
ST	=	State threatened
SC	=	State candidate (for endangered, threatened, or sensitive)
SM	=	State monitored
GAME	=	Game species, subject to hunting/fishing regulations

(Ord. 1039 (part), 1996)

18.01.280 Design standards for priority species.

For each occurrence of a Criteria 1, 2 or 3 species in the city, the applicant shall consult with the Washington State Department of Fish and Wildlife to determine if a site-specific habitat management plan is necessary to protect this species. If necessary, the applicant shall prepare a habitat management plan which will protect that species' habitat requirements. The habitat management plan shall take guidance from the most current edition of the Washington State Department of Fish and Wildlife Priority Habitats and Species Management Guidelines. The habitat management plan shall be subject to approval by the administrator in consultation with the Washington State Department of Fish and Wildlife.

(Ord. 1039 (part), 1996)

18.01.290 Frequently flooded areas.

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

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, damages uses in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood conveyance loss.

(Ord. 1039 (part), 1996)

18.01.300 Design standards for frequently flooded areas.

Adoption by reference, City of Cle Elum Flood Hazard Prevention Ordinance 865, 1987.
(Ord. 1039 (part), 1996)

18.01.310 Geologically hazardous areas.

Areas which are prone to one or more of the following hazards are defined as geologically hazardous:

- A. Erosion/landslide;
- B. Seismic;

C. Coal mines collapsing;

D. Volcanic.

(Ord. 1039 (part), 1996)

18.01.320 Erosion and landslide hazard areas.

Erosion and landslide hazard areas are identified by slope and soil. Slope is the dominant factor in erosion and landslide hazards, it is also the easiest to determine, both on maps and in the field. The same slopes that cause landslides may cause erosion. These hazard areas are defined as:

A. Soils which, according to the U. S. Soil Survey's National Soils Survey Interpretations Handbook current edition, which may experience an erosion process when development occurs are considered an erosion/landslide hazard area. The following soils are located within the city limits of Cle Elum:

202	Yakima varian loam: A well-drained, medium textured soil; permeability of this soil is moderately slow; available water capacity is high; runoff is slow. Located in most of the low-lying areas of the city.
205	Zerofluent: 0 -- 5% slopes; consists of deep well-drained soils formed in recent Alluvium on floodplains, stream terraces and river bottoms; flooding is frequent but brief. Located along Yakima River.
164	Nard loam: 25 -- 45% slope; well-drained soil, finely textured, formed over sandstone and old Alluvium on foothills; highly erosive due to fine texture and slope. Located on the sandrock ridge in northwest section of the city.
166	Varelum varient sand loam: 5 -- 30% slopes; consists of moderately deep, well-drained soils formed in residuum and colluvium from sandstone; highly erosive due to fine texture and slope. Located on the sandrock ridge in northeast section of the city.

201	Roslyn sandy loam: 0 -- 5% slope; well-drained soil formed in old Alluvium with a mantle of volcanic ash on terraces. Located on the elevated west section of the city.
137	Mine tailings: Located north of the city at Red Rock Hill and east of the city in Centennial Park.

- B. Areas with a slope of 0 -- 25% are considered at a low risk to erosion and/or landslides.
- C. Areas with a slope of 25% -- 59% are considered at moderate risk to erosion and/or landslides.
- D. Areas with a slope 60% or greater are considered at high risk to erosion and/or landslides. No such lands exist in Cle Elum at this time.

(Ord. 1039 (part), 1996)

18.01.330 Design standards for erosion and landslide hazard areas.

- A. The city of Cle Elum building code design provisions should adequately mitigate any geologic risks.
- B. Moderate and high risk erosion/landslide geologic hazard areas shall comply with the city of Cle Elum building code. Special engineering may be required by the city building inspector to mitigate such risk.
- C. Risk of erosion should be considered based on localized rainfall average. The city building inspector may require special engineering to control erosion/landslide hazards caused by rainfall and drainage.

(Ord. 1039 (part), 1996)

18.01.340 Seismic hazard areas.

Earthquakes present a variety of hazards in Kittitas County. The primary effects are ground shaking. Secondary effects of the shaking: ground movements (landslides, avalanches, mudflows and subsidence will occur in the places that are otherwise unstable, but areas that are marginally stable under normal conditions can also be shaken loose). Man-made hazards are tertiary effected: collapse of buildings, bridges; floods from pipeline breaks and dam failures; fires from gas and electrical breaks; leakage of hazardous substances; and disruption of transportation, communication, power, water supplies, sewers, etc.

(Ord. 1039 (part), 1996)

18.01.350 Designation of seismic hazard areas.

Kittitas County currently regulates construction of structures for predicted Kittitas County seismic events by use of the Uniform Building Code, seismic risk zones. These zones are mapped and such maps are readily available. (Ord. 1039 (part), 1996)

18.01.360 Design standards for seismic hazard areas.

The city regulates construction of structures for predicted Kittitas County seismic events by the Uniform Building Code seismic risk zones.
(Ord. 1039 (part), 1996)

18.01.370 Mine hazard areas.

"Mine hazard areas" are geologically hazardous areas directly underlain by, adjacent to, or affected by abandoned mine workings such as adits, tunnels, ducts, or airshafts with the potential for creating large underground voids susceptible to collapse. Coal mining activities during the early part of this century left some areas in the Upper Kittitas County honeycombed with abandoned mine workings. Many of these abandoned workings pose a danger to collapse or sinking, especially during a seismic event.
(Ord. 1039 (part), 1996)

18.01.380 Designation of mine hazard areas.

Mine hazard areas in Cle Elum are those areas ranked as Priority 1 -- 3 and inventoried by the Washington State Department of Natural Resources as mine hazard areas:

Washington Department of Natural Resource's Mine Hazard Classification System

The Washington Department of Natural Resources (DNR) mine hazard classification system will be used as follows in its entirety, to identify these areas and designate their overall risk to the public at large:

Priority 1 -- Ranked individually according to severity.

Priority 2 -- Abandoned-mine-lands-related problems which represent a moderate risk to limited health, safety and/or general welfare problem to the public at large.

Priority 3 -- Abandoned-mine-lands-related problems which represent an environmental problem to the public at large.

Inventory of Abandoned Coal Mines in the State of Washington

There are twenty-six DNR documented coal mines operated in Upper Kittitas County (Cle Elum/Roslyn area), with more than eighty mine openings and subsidence areas. All of the seven DNR-identified problem areas contain Priority 3 problems, usually in the form of massive piles of gob (mine refuse, an accumulation of waste materials such as rock and/or hard coal-like substance). Four of these also contain Priority 2 problems, invariably in the form of poorly sealed portals and ventilation shafts. None of these areas have been studied in great detail due to time and financial constraints. There are no Priority 1 areas within Kittitas County.
(Ord. 1039 (part), 1996)

18.01.390 Design standards for mine hazard areas.

- A. Siting of structures on known individual mine hazard areas should be avoided.

B. In siting and design of structures, etc., in known mine hazard areas, the danger of the hazard should be considered.

C. Kittitas County planning and building departments each maintain a library of maps of known mine hazard areas.
(Ord. 1039 (part), 1996)

18.01.400 Volcanic hazard areas.

"Volcanic hazard areas" are geologically hazardous areas that are subject to inundation by pyroclastic flows, lava flows, debris flows, mud flows, lahars, or related flooding resulting from volcanic activity.
(Ord. 1039 (part), 1996)

18.01.410 Designation of volcanic hazard areas.

Evaluation of volcanic hazards is based on investigation of past activity and behavior, and prediction of possible future eruptive scenarios. The possibility of debris flows/lahars and floods downstream from the volcanoes should be given specific consideration. The potential risk from volcanic hazards for any particular area is generally related to how far the area is from a volcanic vent. The risk from flowage hazards, such as mud or debris flows, also depends on the height of an area above a valley floor or basin. Mt. Rainier is considered to be the most dangerous volcano in the Cascade Range because of its tendency to generate mud flows coupled with the density of population in the river valleys around the volcano.
(Ord. 1039 (part), 1996)

18.01.420 Design standards for volcanic hazard areas.

The danger to the city from volcanic activity is remote. If volcanic activity does occur, the most likely scenario would be mudflow, or a repeat of ash fallout from Mt. St. Helens, for example. Current regulations regarding frequently flooded areas apply to the same regions in which mudflows would occur. Current city building standards provide for roof carrying loads, which would include ash.

- A. Planning to protect against loss from volcanic hazards should be addressed through Kittitas County emergency management procedures: Better planning of warning and emergency communications.
- B. Ash fallout should not be disposed of in bodies of water; alternative handling and disposal of ash fallout should be considered by Kittitas County in emergency management procedures.

(Ord. 1039 (part), 1996)

18.01.430 Wetland areas.

Wetlands serve many important ecological and social functions. Cle Elum's wetlands act as natural reservoirs for flooding and stormwater runoff; protect water quality by filtering out pollutants; help stabilize shorelines with their root systems; provide areas for groundwater recharge; provide habitat areas for fish, wildlife, and vegetation; provide areas for scientific study and natural resource education. Wetlands preservation can significantly reduce public and private costs associated with downstream

flooding, poor water quality, and diminishing wildlife habitat.

Cle Elum intends to preserve, protect, manage, and regulate wetlands for the purpose of promoting health, safety, and general welfare while conserving fish, wildlife and other natural resources; protect the ecological and economic benefits to the public of wetlands functions and values; prohibit development when significant impacts to wetlands cannot be avoided; protect private property rights consistent with the public interest; and provide for protection against direct and indirect wetlands impacts by providing regulatory authority for management of wetland buffers.
(Ord. 1039 (part), 1996)

18.01.440 Designation of wetland areas.

Wetland areas are identified on the national wetlands inventory and may be identified based on a site visit by a qualified wetland biologist using the Federal Manual for Delineating Jurisdictional Wetlands, 1989 edition. If determined by the administrator that a wetlands exists on the property and the activity is regulated through this chapter, the wetlands shall be delineated according to the federal manual and rated according to the Washington 4-tiered wetlands rating system by a qualified wetlands biologist.

(Ord. 1039 (part), 1996)

18.01.450 No net loss of wetland areas.

The city shall require a zero net loss of wetlands acreage, functions and values and, if reasonably possible, a gain of those wetlands in the long term.

(Ord. 1039 (part), 1996)

18.01.460 Buffers for wetland areas.

All wetland buffers shall be measured from the wetland edge as marked in the field. The width of the wetland buffer is determined from the identified wetland category. Minimum buffer width requirements are as follows:

- Category I -- 200 feet
- Category II -- 100 feet
- Category III -- 50 feet
- Category IV -- 25 feet

In addition, there shall be a twenty-five-foot building structure setback from any wetland buffer.
(Ord. 1039 (part), 1996)

18.01.470 Wetland buffer averaging.

Wetland buffers may be modified by averaging buffer widths. Wetland buffer width averaging shall be allowed only where the applicant demonstrates that the following exists:

- A. That averaging is necessary to avoid an extraordinary hardship to the applicant caused by circumstances peculiar to the property;
- B. That the wetland contains variations in sensitivity due to existing physical characteristics;

C. That the proposed use would be located adjacent to areas where buffer width is reduced and that such land-uses are low in impact;

D. That width averaging will not adversely impact wetland function and values.

(Ord. 1039 (part), 1996)

18.01.480 Natural condition of wetland buffer.

Wetland buffer areas shall be retained in their natural condition or may be improved to enhance buffer functions and values. Where buffer disturbance has occurred during construction, revegetation with native vegetation shall be required. The Kittitas County noxious weed ordinance shall be adhered to. (Ord. 1039 (part), 1996)

18.01.490 Replacement ratios for wetland areas.

If an applicant can demonstrate there is no reasonable alternative to the destruction of a category II -- IV wetland, the wetland may be replaced either on or off-site according to the following criteria. Wetland replacement ratios are expressed in gross area required for replacement. The actual replacement, enhancement or rehabilitation of wetlands shall be determined by the administrator and meet all applicable standards for such. Replacement areas shall be determined according to functions, acreage, type, location, time factors, ability to be self-sustaining and projected success. Wetland functions and values shall be calculated using the Washington 4-tiered wetland rating system and by a qualified wetland biologist. The following replacement ratios are taken from the Washington State 4-tier wetlands rating system (Washington State Department of Ecology, 1990);

Category of Wetland	Replacement Ratio
I	[6:1
II	[Forested 3:1
	[Scrub-shrub 2:1
III	[Emergent 1.5:1
IV	[1.25:1

(Ord. 1039 (part), 1996)

18.01.500 Permitted uses in wetland buffers.

Permitted uses in wetland buffers are as follows:

A. Passive recreation, pedestrian and bicycle trails;

B. Public roads and utilities, provided no reasonable alternative exists;

C. Secondary storm drainage facilities if no reasonable alternative exists.

(Ord. 1039 (part), 1996)

18.01.510 Warning and disclaimer.

The determination by a court of competent jurisdiction that any portion of this chapter is unenforceable shall not affect the enforceability of the remainder of this chapter.

(Ord. 1039 (part), 1996)

18.01.520 Violation--Penalty.

It is unlawful for any person, firm, corporation, or group to engage in any activity contrary to or in violation of any of the provisions of this chapter. Each such violation shall be a separate offense, and upon conviction of any such violation shall be punished as set forth in Chapter 1.16 of the Cle Elum Municipal Code.

(Ord. 1039 (part), 1996)