

CHAPTER 13.01 DEFINITIONS

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13.01.110 Critical Areas Preservation Definitions.

For the purposes of Chapter 13.11 Critical Areas Preservation, the following terms and phrases used in this chapter shall be interpreted as defined below. Where ambiguity exists, words or phrases shall be interpreted so as to give this chapter its most reasonable application in carrying out its regulatory purpose.

13.01.110.A

“Adjacent.” Immediately adjoining (in contact with the boundary of the influence area) or within a distance that is less than that needed to separate activates from critical areas to ensure protection of the functions and values of the critical areas. Adjacent shall mean any activity or development located:

- a. On a site immediately adjoining a critical area;
- b. A distance equal to or less than the required critical area buffer width;
- c. A distance equal to or less than one-half mile (2,640 feet) from a bald eagle nest;
- d. A distance equal to or less than three hundred (300) feet upland from a stream, wetland, or water body;
- e. Bordering or within the floodway, floodplain or channel migration zone; or
- f. A distance equal to or less than two hundred (200) feet from a critical aquifer recharge area.

“Alteration.” Any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing of vegetation, construction, compaction, excavation, or any other activity that changes the character of the critical area.

“Anadromous fish.” Fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, adult char (bull trout) can live for many years, moving in and out of saltwater and spawning each year. The life history of Pacific salmon and char contains critical periods of time when these fish are more susceptible to environmental and physical damage than at other times. The life history of salmon, for example, contains the following states; upstream migration of adults, spawning, inter-gravel incubation, rearing, smoltification (the time period needed for juveniles to adjust their body functions to live in the marine environment), downstream migration, and ocean rearing to adults.

“Aquifer.” A geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

“Aquifer critical recharging areas.” Areas that, due to the presence of certain soils, geology, and surface water act to recharge groundwater by percolation.

13.01.110.B

“Base flood.” A flood event having a one percent (1%) chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on flood insurance map(s) always include the letters A or V.

“Best available science.” The current science information used in the process to designate, protect, or restore critical areas, that is derived from a valid scientific process as defined by WAC 365-195-900 through 925. Sources of best available science are included in “Citations of Recommended Sources of the Best Available Science for Designating and Protecting Critical Areas” published by the Washington State Office of Community, Trade and Economic Development.

“Best management practices (BMP’s).” Conservation practices or systems of practices and management measures that:

- a. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;

- b. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
- c. Protect trees and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and
- d. Provide standards for proper use of chemical herbicides within critical areas.

“Biodiversity Areas”. Biodiversity Areas are areas that contain valuable habitat that supports a diversity of plants and animals. Biodiversity areas are characterized by ~~include those areas that contain~~ native vegetation that is diverse with a mosaic of habitats and microhabitats. They include areas dominated by a vertically diverse assemblage of native vegetation containing multiple canopy vegetation strata layers and/or areas that are horizontally diverse with a mosaic of habitats and microhabitats. They also include areas with rare or uncommon plant species and associations designated by the City or identified by Federal and State agencies such as the Department of Natural Resources Heritage Program. They are not associated with a specific priority species and their overall habitat function may be limited due to their location in a highly urbanized area; however, they are diverse relative to other areas in the City and support common urban species.

~~“Biodiversity Corridors.” Areas of relatively undisturbed and unbroken tracts of vegetation that connect Biodiversity Areas, other Priority Habitat and Critical Areas, including shorelines and serve to protect those areas and allow movement of common urban species.~~

“Bioengineering.” A combination of engineering techniques and natural products that increase the strength and structure of the soil through biological and mechanical means.

“Buffer or Buffer zone.” An area required by this chapter that is contiguous to and protects a critical area which is required for the continued maintenance, functioning, and/or structural stability of a critical area. The area may be surrounding a natural, restored, or newly created critical area.

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“Class, wetland.” One of the wetland classes in the United States Fish and Wildlife Service publication, Classification of Wetlands and Deepwater Habitats of the United States (December 1979). A class describes the general appearance of the habitat in terms of either the dominant vegetation life form or the physical geography and composition of the substrate.

“Clearing.” The destruction or removal of logs, scrub-shrubs, stumps, trees or any vegetative material by burning, chemical, mechanical or other means.

“Compensatory mitigation.” Replacing project-induced losses or impacts to a critical area, and includes, but is not limited to, the following:

- a. Restoration. Actions performed to reestablish wetland functional characteristics and processes that have been lost by alterations, activities, or catastrophic events within an area that no longer meets the definition of a wetland.
- b. Creation. Actions performed to intentionally establish a wetland at a location where it did not formerly exist.
- c. Enhancement. Actions performed to improve the condition of existing degraded wetlands so that the functions they provide are of a higher quality,
- d. Preservation actions taken to ensure the permanent protection of existing high quality wetlands.

“Conservation easement.” A legal agreement that the property owner enters into to restrict uses of the land. Such restrictions can include, but are not limited to, passive recreation uses such as trails or scientific uses and fences or other barriers to protect habitat. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property, therefore, providing permanent or long-term protection.

“Critical areas.” Critical areas include the following ecosystems: areas with a critical recharging effect on aquifers used for drinking water, fish and wildlife habitat conservation areas (FWHCAs), frequently flooded areas, geologically hazardous areas, wetlands, and streams.

“Critical facility.” Critical facilities are structures that provide essential services and functions necessary for public safety, health, and disaster recovery. Typical critical facilities include hospitals, fire stations, storage of critical records, and similar facilities.

“Critical root zone.” The critical root zone (CRZ) is an area equal to one-foot radius from the base of a tree trunk for each one inch of the tree’s diameter at 4.5 feet above grade (also referred to as diameter at breast height). Protecting the CRZ from disturbance is critical to maintaining tree health.

“Cumulative Impacts or Effects.” The combined, incremental effects of human activity on ecological or critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with the effects of other action in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.

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“Geologic hazards specialist.” A professional geologist or engineering geologist with a degree in the geologic sciences from an accredited college or university with a minimum of four years’ experience in geologic practice involving geologic hazards. A qualified geotechnical engineer, licensed as a civil engineer with the state of Washington, with a minimum of four years’ experience in landslide evaluation, may also qualify as a geologic hazards specialist.

“Geologically hazardous areas.” Areas that may not be suited to development consistent with public health, safety or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include: erosion, landslide, seismic, mine, and volcanic hazards.

~~“Geo-buffer.” A zone within a geo-setback area required to be vegetated with either native or non-native vegetation.~~

~~“Geo-setback.” The minimum building setback from the applicable geologically hazardous area.~~

“Grading.” Excavating, filling, leveling, or artificially modifying surface contours.

13.01.110.H

“Habitat.” The specific area or environment in which a particular type of animal lives. An ecological or environmental area that is inhabited by particular species of animal, plant or other type of organism. It is the natural environment in which an organism lives, or the physical environment that surrounds, influences, and is utilized by a species or population.

“Habitat conservation areas.” Areas designated as fish and wildlife habitat conservation areas.

“Habitat Corridors.” Areas of relatively undisturbed and unbroken tracts of vegetation that connect Biodiversity Areas, other Priority Habitat, and Critical Areas, including shorelines, and serve to protect those areas and allow movement of common urban species.

“Habitats of local importance.” Those areas that include a seasonal range or habitat element with which a given species has a primary association, and which, if altered may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, talus, and wetlands.

“Hazard trees.” Trees that are damaged, diseased, or have fully matured and their health is in decline and that pose a threat to life or property due to their location and increasing potential of falling.

“Hydraulic project approval (HPA).” A permit issued by the Department of Fish and Wildlife for modifications to waters of the state in accordance with Chapter 75.20 RCW.

“Hydric soil.” Soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the uppermost level.

“Hydrogeomorphic” or “HGM.” A system used to classify wetlands based on the position of the wetland in the landscape (geomorphic setting), the water source for the wetland and the flow and fluctuation of the water once in the wetland.

“Hydroperiod.” The seasonal occurrence of flooding and/or soil saturation which encompasses the depth, frequency, duration, and seasonal pattern of inundation.

“Hydrophytic vegetation.” Macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the approved federal manual and applicable regional supplements for wetland delineation.

“Hyporheic zone.” The saturated located beneath and adjacent to streams that contains some portion of surface water, serves as a filter for nutrients, and maintains water quality.

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“Management area.” A specified area or zone surrounding documented locations of priority habitats or species, or other identified fish and wildlife conservation area, where specific measures are taken to protect habitat features, provide screening, or conserve vegetation. Washington Department of Fish and Wildlife may have recommended conservation actions for this area, including seasonal limits for construction, tree retention, clearing limits or other measures.

“Mature Forested Wetland.” A wetland where at least one acre of the wetland surface is covered by woody vegetation greater than 20 feet in height with a crown cover of at least 30 percent and where at least 8 trees/acre are 80-200 years old or have average diameters (dbh) exceeding 21 inches (53 centimeters) measured from the uphill side of the tree trunk at 4.5 feet up from the ground.

“Mine hazard areas.” Those areas underlain by or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of sink holes, gas releases, or subsidence due to mine workings. Underground mines do not presently exist within the City of Tacoma.

“Mitigation.” Avoiding, minimizing, or compensating for adverse critical areas impacts. Mitigation, in the following sequential order of preference, is:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action.
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps such as project redesign, relocation, or timing, to avoid or reduce impacts.
- c. Rectifying the impact to wetlands by repairing, rehabilitation, or restoring the affected environment to the conditions existing at the time of the initiation of the project:
- d. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods.
- e. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action.
- f. Compensating for the impact to wetlands by replacing, enhancing, or providing substitute resources or environments.
- g. Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Mitigation for individual actions may include a combination of the above measures.

“Monitoring.” Evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems and assessing the performance of required mitigation measures throughout the collection and analysis of data by various methods for the purposes of understanding and documenting changes in natural ecosystems and features, and includes gathering baseline data.

~~“Mosaic wetlands.” Wetlands that should be considered one unit when each patch of wetland is less than 1-acre, and each patch of wetland is less than 100 feet apart, on the average, and the areas delineated as vegetated wetland are more than 50% of the total area of the wetlands and the uplands together, or wetlands, open water, and river bars.~~

13.01.110.N

“Native vegetation.” Vegetation comprised of plant species which are indigenous to the area in question and were not introduced by human activities.

“Nonwetlands.” Uplands and lowland areas that are neither deepwater aquatic habitats, wetlands, nor other special aquatic sites. They are seldom or never inundated, or if frequently inundated, they have saturated soils for only brief periods during the growing season, and if vegetated, they normally support a prevalence of vegetation typically adapted for life only in aerobic soil conditions.

“Normal maintenance and repair.” Those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. “Normal repair” means to restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment.

“Notice on Title.” [A notification of the presence of a critical area or critical area buffer/management area/setback and the applicability of TMC 13.11 on a form created and approved by the Director and recorded with the Pierce County Auditor.](#)

13.01.110.O

“Off-site compensation.” To replace critical areas away from the site on which a critical area has been impacted.

“On-site compensation.” To replace critical areas at or adjacent to the site on which a critical area has been impacted.

“Open Space Corridors.” [Include land useful for recreation, wildlife habitat, trails, and connection of critical areas, are discussed in the City’s One Tacoma: Comprehensive Plan, and are mapped in the Plan and by the City’s geographical mapping division.](#)

“Ordinary high water mark.” A mark that has been found where the presence and action of waters are common, usual, and maintained in an ordinary year long enough to create a distinction in character between water body and the abutting upland.

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“Parties of record.” Individuals, entities and groups who have commented on a proposal in writing or in person or who have asked to be included on a mailing list for a specific proposal.

“Preservation.” [The removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes activities commonly associated with the protection and maintenance of wetlands through the implementation of appropriate legal and physical mechanisms \(such as recording conservation easements and providing structural protection like fences and signs\). Preservation does not result in a gain of wetland area and functions \(but may result in a gain in functions over the long term\).](#)

“Priority habitats.” Seasonal range or habitat element with which a given species is primarily associated and which, if altered, may reduce survival potential of that species over the long term. Priority habitats are designated by the Washington Department of Wildlife, Priority Habitat and Species Program, and may include habitat areas of high relative density or species richness, breeding habitat or habitats used as winter range or movement corridors. Habitats of limited availability or with high vulnerability to alteration, such as cliffs, talus, Biodiversity Areas/Corridors and wetlands, may also be included.

“Priority species.” Species which are of concern because of their population status and sensitivity to habitat alteration. Priority species are designated by the Washington Department of Wildlife, Priority Habitat and Species Program, and may include endangered, threatened, sensitive, candidate, monitored, or game species.

“Programmatic Restoration Project.” Projects where restoration with applicable public access are the primary functions and goals of the project. Advanced mitigation may be proposed and tracked for future development elements that are submitted during the 20-year timeline available through a 5-year extension process. Programmatic restoration projects will provide support and incentives to preserve City Open Space and park areas, recreation areas and trails. These projects will provide partnerships that enhance recreation opportunities. Programmatic restoration projects will allow implementation of new programs/ and activities, and maintenance of native vegetation within critical areas and buffers.

“Protection/Maintenance.” Removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with preservation. Preservation does not result in a gain of wetland acres, and may result in a gain of functions.

13.01.110.Q

“Qualified professional.” A person who, at a minimum, has earned a degree from an accredited college/university in the relevant scientific or engineering discipline appropriate to the critical area subject and a minimum of two years of related professional work experience; ~~or eight years of professional work experience in the relevant critical area subject.~~

a. A qualified professional for watercourses, wetlands, and wildlife habitat conservation areas must have a degree in biology or a related field and relevant professional experience.

i. A qualified professional for wetlands must be a person with professional work experience and training in wetland issues and with experience in performing delineations, analyzing wetland functions and values, analyzing wetland impacts, and recommending wetland mitigation and restoration. Qualifications include:

(1) Bachelor of Science or Bachelor of Arts or equivalent degree in biology, botany, environmental studies, fisheries, soil science, wildlife or related field, and two years of related professional work experience, including a minimum of one year experience delineating wetlands using the Federal Manual and regional supplement, and preparing wetland reports and mitigation plans. Additional education may substitute for one year of related work experience; or

(2) Four years of related professional work experience and training, with a minimum of two years' experience delineating wetlands using the Federal Manual and regional supplement and preparing wetland reports and mitigation plans. The person should be familiar with the approved federal manual and applicable regional supplements for wetland delineation, the 2014 Washington State Wetlands Rating System for Western Washington, Version 2.0 (Ecology Publication #23-06-009), City of Tacoma wetland development regulations and the requirements of this chapter.

b. A qualified professional for preparing geotechnical reports and geotechnical design recommendations for erosion hazard areas must be a civil engineer with geotechnical certification licensed by the state of Washington. Where specified in code, a qualified professional for preparing geotechnical reports and geotechnical design recommendations for landslide hazard areas must be both a geotechnical engineer with a professional civil engineering license and a licensed geologist, licensed by the state of Washington, or geotechnical reports and geotechnical design recommendations must be prepared jointly by a licensed geotechnical engineer with a professional civil engineering license and a licensed geologist, licensed by the state of Washington.

c. A qualified professional for preparing critical aquifer recharge reports must be a professional hydrogeologist or geologist licensed in the state of Washington.

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“Scrub-shrub wetland.” A wetland with at least thirty percent (30%) of its surface area covered by woody vegetation less than twenty (20) feet in height as the uppermost strata.

“Seismic hazard.” Areas subject to severe risk damage as a result of seismic induced settlement, shaking, lateral spreading, surface faulting, slope failure or soil liquefaction. These conditions occur in areas underlain by soils low cohesion or density usually in association with a shallow groundwater table. Seismic hazard areas shall be defined by the Washington Department of Ecology Coastal Zone Atlas (Seismic Hazard Map prepared by GeoEngineers) as: Class U (Unstable), Class UOS (Unstable old slides), Class URS (Unstable recent slides, Class I (intermediate) and Class M (Modified) as shown in the Seismic Hazard Map.

“Setback.” The minimum building setback from the applicable critical area buffer.

“Species.” Any group of animals or plants classified as a species or subspecies as commonly accepted by the scientific community.

~~“Species, endangered.” Any plant, fish or wildlife species that is threatened with extinction throughout all or a significant portion of its range and is listed by the state or federal government as an endangered species.~~

~~“Species, priority.” Any plant, fish or wildlife species requiring protection measures and/or management guidelines to ensure their persistence as genetically viable population levels as classified by the Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate and monitor species, and those of recreational, commercial or tribal importance.~~

~~“Species, threatened.” Any plant, fish or wildlife species that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range without cooperative management or removal of threats, and is listed by the state or federal government as a threatened species.~~

“Stream corridor.” Perennial, intermittent or ephemeral waters included within a channel of land and its adjacent riparian zones which serves as a buffer between the aquatic and terrestrial upland ecosystems.

“Streams.” An area where open surface water produces a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff structures or other entirely artificial watercourses, unless they are used by fish or are used to convey [hydrology from an adjacent wetland or from](#) a naturally occurring watercourse. A channel or bed need not contain water year-round, provided there is evidence of at least intermittent flow during years of normal rainfall.

“Streams of Local Significance.” Streams that contain salmon, steelhead, and bull trout.

“Subclass, wetland.” One of the wetland subclasses in the United States Fish and Wildlife Service publication, Classification of Wetlands and Deepwater Habitats of the United States (December 1979). A subclass is based on finer distinctions in life forms and/or substrate materials. Examples of subclasses of vegetation include needle-leaved evergreen, broad-leaved evergreen, needle-leaved deciduous and broad-leaved deciduous.

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“Threatened species.” Any plant, fish or wildlife species that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range without cooperative management or removal of threats, and is listed by the state or federal government as a threatened species.

“Toe of slope.” A distinct topographic break in slope at the lowermost limit of an area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.

“Tsunami hazard areas.” Coastal areas and large lake shoreline areas susceptible to flooding and inundation as the result of excessive wave action derived from seismic or other geologic events. Currently, no specific boundaries have been established in the City of Tacoma limits for this type of hazard area.

13.01.110.U

“Unavoidable impacts.” Impacts to a wetland or stream or associated buffers that will remain after project completion, when it has been demonstrated that no practicable alternatives exist, that extraordinary hardship exists or that the project is in the public interest.

13.01.110.V.

“Volcanic hazard areas.” Areas subject to pyroclastic flows,

13.01.110.W

“Waters of the State”. Lakes, rivers, ponds, streams, inland water, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington.

“Wetland Mosaic.” An area with a concentration of multiple small wetlands, in which each patch of wetland is less than one acre; on average, patches are less than 100 feet from each other and areas delineated as vegetated wetland are more than 50% of the total area of the entire mosaic, including uplands and open water, and there are at least three wetland patches that meet the size and distance thresholds.

“Wetlands.” 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 small lakes, ponds, swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including but not limited to irrigation and drainage ditches, grass-lined swales, canals, detention facilities, farm ponds, and landscape amenities if routinely maintained for those purposes. Wetlands do not include those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands do include those artificial wetlands intentionally created to mitigate conversion of wetlands.

“Wetlands of Local Significance.” Wetlands that are of special concern to the City of Tacoma and require additional protection measures beyond that afforded to them through the buffers required for each wetland category. Wetlands of Local Significance may be nominated through a process described in the Environmental Policy Plan Element of the City of Tacoma Comprehensive Plan

~~“Wetland Specialist.” A person with professional work experience and training in wetland issues and with experience in performing delineations, analyzing wetland functions and values, analyzing wetland impacts, and recommending wetland mitigation and restoration. Qualifications include: (1) Bachelor of Science or Bachelor of Arts or equivalent degree in biology, botany, environmental studies, fisheries, soil science, wildlife or related field, and two years of related professional work experience, including a minimum of one year experience delineating wetlands using the Unified Federal Manual and preparing wetland reports and mitigation plans. Additional education may substitute for one year of related work experience; or (2) Four years of related professional work experience and training, with a minimum of two years’ experience delineating wetlands using the Unified Federal Manual and preparing wetland reports and mitigation plans. The person should be familiar with the approved federal manual and applicable regional supplements for wetland delineation, the 2014 Washington State Wetlands Rating System for Western Washington (Ecology Publication #14-06-029), City of Tacoma wetland development regulations and the requirements of this chapter.~~

“Water resource inventory area (WRIA).” One of sixty-two (62) watersheds in the state of Washington, each composed of the drainage areas of a stream or streams, as established in Chapter 173-5000 WAC as it existed on January 1, 1997.

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