

## ORDINANCE NO. 33\_\_

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AN ORDINANCE DEFINING AND ESTABLISHING REGULATIONS TO PROTECT CRITICAL AND ENVIRONMENTALLY SENSITIVE AREAS, INCLUDING WETLANDS, FISH AND WILDLIFE HABITAT CONSERVATION AREAS, FREQUENTLY FLOODED AREAS, GEOLOGICALLY HAZARDOUS AREAS, AND CRITICAL AQUIFER RECHARGE AREAS, REFERENCING AND INCORPORATING EXISTING STATE AND COUNTY REGULATIONS AND STANDARDS WHERE APPLICABLE AND APPROPRIATE, AND ALSO ESTABLISHING THRESHOLDS BELOW WHICH THE NEW REGULATIONS WILL NOT APPLY, ALL AS REQUIRED BY THE WASHINGTON STATE GROWTH MANAGEMENT ACT.

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- A. WHEREAS, the Council believes it important to strike a balance between critical land protection, private property rights and the need for economic development and diversification. Consequently, this ordinance has been designed to incorporate best available science, encouraging landowners to protect critical areas and to provide equitably for such protection. In addition, it is the intent of the City to actively and constructively assist applicants in the preparation and processing of permits, approvals, plans, requirements, or procedures. The ultimate responsibility for providing complete and accurate application material and/or required information falls on the applicant; and
- B. WHEREAS, The Growth Management Act requires the City to designate critical areas and adopt development regulations to assure the conservation of such areas. In compliance with this mandate, the City finds that certain portions of the City are characterized by critical areas. These critical areas include: wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and critical aquifer recharge areas; and
- C. WHEREAS, these areas contain valuable natural resources, provide natural scenic qualities important to the character of the community, perform important ecological functions and processes, or present a hazard to life and property. Identification, management, and protection of these lands and areas is, therefore, necessary to protect the public health, safety, and general welfare of Longview's citizens; and
- D. WHEREAS, wetlands provide numerous valuable functions, including but not limited to providing wildlife and fish habitat, water quality enhancement, flood and erosion control, aquifer recharge and discharge, shoreline stabilization, research and education opportunities, and recreation; and
- E. WHEREAS, fish and wildlife habitat conservation areas perform many important physical and biological functions that benefit the City and its residents. These functions include but are not limited to: providing opportunities for food, cover, nesting, breeding, and movement for fish and wildlife; promoting diversity of species and habitat; helping to maintain air and water quality; controlling erosion, serving as areas for recreation, education, and scientific study and aesthetic appreciation; and providing neighborhood separation and visual diversity within urban areas; and

- F. WHEREAS, frequently flooded areas pose a risk to public and private property and public health. Regulation of these lands will promote efficient use of the 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 or uses that pollute or deteriorate natural waters and water courses; and
- G. WHEREAS, geologic hazards pose a risk to public and private property and to the natural systems that make up the City's environment. These lands are susceptible to landslides, erosion, seismic, volcanic, and mining hazards. Building and development practices shall consider topographical and geological features. Future development should be directed to geologically stable areas and restricted on unsuitable ground. Regulating these lands, and avoiding or minimizing alteration of geologic hazards, is necessary to protect the public health, safety, and general welfare; and
- H. WHEREAS, critical aquifer recharge areas perform many important biological and physical functions affecting the replenishment of aquifers that benefit the City and its residents, as well as storing and conveying groundwater. Protection of critical aquifer recharge areas is, therefore, necessary to protect the public health, safety, and general welfare; and
- I. WHEREAS, it is the intent of the City to implement the goals, objectives, and policies of the City's Comprehensive Plan, comply with certain mandatory requirements of the Growth Management Act (RCW 36.70A) including implementing rules and guidelines, coordinate the City's critical areas protection activities and programs with those of other jurisdictions, and coordinate environmental review and permitting of proposals to avoid duplication and delay; and
- J. WHEREAS, Section 36.70A.060(2) of the Revised Code of Washington requires each county, and each city contained within each county, to adopt development regulations that designate natural resource lands and critical areas, and that protect critical areas;

NOW THEREFORE, the City Council of the City of Longview do ordain as follows:

**Section 1.** That pursuant to RCW 36.70A.060(2), Chapter 17.10, entitled "Critical Area Ordinance," of the Longview Municipal Code is hereby amended, and reading as follows; provided manifest and numbering errors shall be corrected prior to publication:

## CHAPTER 17.10

### CRITICAL AREAS

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#### **17.10.010 Introduction**

- A. This chapter implements the goals, policies, guidelines, and requirements of the Growth Management Act, as amended, and the City of Longview (City) Comprehensive Plan.
- B. The purpose of this chapter is to identify and classify ecologically sensitive and hazardous areas and to protect these areas and their functions and values, while also allowing for reasonable use of private property. Critical areas are defined as wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and critical aquifer recharge areas.

- C. The City finds that the beneficial functions, structure, and values of critical areas should be protected as identified in this chapter, and further that potential dangers or public costs associated with inappropriate use of such areas should be minimized by reasonable regulation of uses within, adjacent to, or directly affecting such areas.
- D. Review Procedures.
  - 1. This chapter establishes review procedures for development proposals in and adjacent to critical areas. Critical areas will be designated by definition and then classified through site assessments to confirm the actual presence, boundaries (or extent), and classification of critical areas.
  - 2. This chapter allows staff of the Community Development Department (Department) to provide site visits, preliminary reviews, and pre-application meetings to assist in identifying critical areas.
  - 3. Critical areas are dynamic natural systems that are a part of the City's changing landscape. While critical areas are present throughout the City, their exact location cannot be mapped accurately enough for regulatory purposes. Maps are useful primarily as an indicator of the distribution and extent of critical areas. Maps will be used whenever possible as a part of the screening process for evaluating permit applications. Although a number of map resources are referenced in this chapter, regulatory measures such as buffer requirements are based upon the identification of critical areas during the regulatory review process.
  - 4. If hardships and grievances occur, this chapter contains provisions to allow for reasonable use exceptions, variances, and appeals. Through this chapter, the City will work with the applicant to identify and manage critical areas.
- E. Best Available Science. Best available science shall be used in administering this chapter. A list of reference sources and literature cited in this chapter can be obtained from the Department.

#### **17.10.020 Title and Purpose**

- A. This chapter shall be known as the City of Longview Critical Areas Ordinance, and is adopted to assist in orderly development, conserve the value of property, safeguard the public welfare, and to protect the following critical areas:
  - 1. Wetlands. Wetlands serve many important ecological and environmental functions and help to protect public health, safety and welfare by providing flood storage and conveyance, erosion control, fish and wildlife habitat and production, recreation, water quality protection, water storage, education, scientific research, and other public benefits. It is the purpose of this chapter to protect these functions to prevent the continual loss of wetlands, and where practical, to enhance or restore wetland functions and values.
  - 2. Fish and Wildlife Habitat Conservation Areas. In addition to their intrinsic value, certain species of fish and wildlife represent important historic, cultural, recreational and economic resources. Many species serve as indicators of the condition of the environment and the quality of life that Longview residents

have invested in, enjoy, and respect. It is the purpose of this chapter to protect, restore where practical, and enhance fish and wildlife populations.

3. Frequently Flooded Areas. It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas.
4. Geologically Hazardous Areas. Geologically hazardous areas include areas susceptible to the effects of erosion, sliding, earthquake, ground swelling, or other geological events. They pose a threat to the health and safety of citizens when incompatible residential, commercial, industrial, or infrastructure development is sited in areas of a hazard. Geologic hazards pose a risk to life, property, and resources when steep slopes are destabilized by inappropriate activities and development, or when occupied structures or facilities are sited in areas susceptible to natural or human-caused geologic events. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices so that risks to health and safety become acceptable. When technology cannot reduce risks to acceptable levels, building and other construction within identified geologically hazardous areas may be prohibited.
5. Critical Aquifer Recharge Areas. Potable water is an essential life-sustaining element. In many areas, drinking water comes from groundwater supplies. Once groundwater is contaminated, it is difficult, costly, and sometimes impossible to clean up. It is the purpose of this chapter to prevent contamination and depletion, avoid exorbitant clean up costs, hardships, and potential physical harm to people.

#### **17.10.030 Statutory Authorization**

- A. The Legislature of the State of Washington has, in RCW 36.70A.060, mandated local governments to adopt development regulations precluding land uses or developments that are incompatible with critical areas. Critical areas to be regulated are designated under RCW 36.70A.170 and will be regulated through the application of best available science, as determined according to WAC 365-195-900 and RCW 36.70A.172(1). In addition, cities shall give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.
- B. The ordinance codified in this chapter is adopted under the authority of RCW 36.70 and 36.70A and Article 11 Section 11 of the Washington State Constitution.

#### **17.10.040 Relationship to Other Regulations, Interpretation, Authority, & Fees**

- A. Relationship to Other Regulations. These critical areas regulations shall apply in addition to zoning and other regulations adopted by the City.
  1. The City shall not grant any approval or permission to alter the condition of any land, water or vegetation, or to construct or alter any structure or improvement without satisfying the requirements of this chapter, including but

not limited to the following: building permit; rezone; special property use permit; right-of-way use permit; shoreline conditional use permit; shoreline substantial development permit; shoreline variance; short subdivision; subdivision; planned unit development; grading and clearing permit; utility and other use permit; or any subsequently adopted permit or approval required by development regulations adopted subsequent to the adoption of this chapter not expressly exempted by this chapter.

2. The City may approve, approve with conditions, or deny any development proposal to satisfy the requirements of and carry out the purposes and requirements of this chapter.
  3. If any conflict between this chapter and any other City regulations, including, but not limited to, Shoreline Management Program, State Environmental Policy Act, Endangered Species Act and the Federal Clean Water Act, the regulation that provides more protection for the critical area shall apply.
  4. Compliance with the provisions of this chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required.
  5. Many state, federal, and regional regulations apply to projects conducted within critical areas. Uses otherwise allowed by City codes do not eliminate other agency regulatory requirements. In cases where other agencies possess jurisdictional control over critical areas and it is determined by the Director that the permit conditions are equivalent or more stringent than the requirements of this chapter, those requirements may substitute for the requirements of this chapter. Such agencies may include, but are not limited to, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Washington Department of Ecology, and the Washington Department of Natural Resources. The applicant is responsible for complying with other requirements apart from the requirements of this chapter. No permit granted pursuant to this chapter shall remove applicant's obligation to comply in all respects with the applicable provision of any other federal, state, or local law or regulation.
  6. In addition to the provisions established in this chapter, the City shall coordinate its own programs with those of other public and private agencies to enhance management of critical areas within the City as required by WAC 365-196.
- B. Interpretation. In the interpretation and application of this chapter, its provisions shall be considered to be the minimum requirements necessary, shall be liberally construed to serve the purposes of this chapter, and shall be deemed to neither limit nor repeal any other provisions under state statute.
- C. Authority. The Director or his or her designee(s) shall be the administrator of this chapter and is given the authority to interpret and apply, and the responsibility to enforce, this chapter to accomplish the stated purposes. The city may withhold, condition, or deny development permits or approvals to ensure that the proposed action is consistent with this chapter.

D. Fees.

1. The applicant shall be responsible for the initiation, preparation, submission, and expense of any required reports, assessments, studies, plans, and other work prepared in support of or necessary to review the application.
2. Fees are set in Chapter 17.02 LMC, General Provisions.

### 17.10.050 Definitions

The definitions contained in RCW 36.70A.030 insofar as they pertain to terms used herein, as they now exist or are hereafter amended, are hereby adopted by this reference to be used in the administration of this chapter.

For the purposes of this chapter, the following definitions shall apply unless the context clearly requires otherwise.

**Alluvial fan** means a fan-shaped alluvial deposit formed by a stream where its velocity is abruptly decreased, as at the mouth of a ravine.

**Alteration** means a human-induced action that materially affects a regulated critical area or its buffer, such as a physical change to the existing condition of land or improvements including but not limited to: construction, clearing, filling, and grading.

**Anadromous** means a life history characteristic of fish that spend time in both freshwater and saltwater, to complete necessary life functions.

**Applicant** means the person, party, firm, corporation, federal, state, tribal or local government, or any other entity that proposes any activity that could affect a critical area.

**Aquatic habitat** means those areas where juvenile and/or adult fish exist or are known to migrate, forage, reproduce, or inhabit.

**Bankfull width** means the measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth for streams.

**Best Available Science (BAS)** means current scientific information used in the process to designate, protect, or restore critical areas, which is derived from a valid scientific process as defined by WAC 365-195-900 through 925.

**Best management practices (BMP)** means systems of practices and management measures that 1) control soil loss and reduce water quality degradation caused by high concentration of nutrients, animal waste, toxins, or sediment; 2) minimize adverse impacts to surface and groundwater flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands or other water bodies; 3) protect trees, vegetation, and soils designated to be retained during and following site construction and use native plant species appropriate to the site for re-vegetation of disturbed areas; and 4) provide standards for proper use of chemical herbicides within critical areas.

**Board** means the City of Longview Appeal Board of Adjustment.

**Buffer** or **buffer area** means an area adjacent to a wetland, river, stream, pond, lake, geologically hazardous area, or riparian area that is established and managed to protect the integrity of functions and values of the critical areas from human caused disturbances, or to protect people and development from a geological hazard. "Buffer," when referring to geologically hazardous areas, means an area surrounding a geologic hazard consisting of naturally occurring or reestablished vegetation and having a width adequate to separate and protect people and development from the geologically hazardous area.

**City** means the City of Longview, Washington, a Municipal Corporation.

**Clearing** means the removal, redistribution, or disturbance to vegetation, soil or substrate that may include trees, brush, grass, groundcover, or other vegetative matter from a site.

**Commission** means the Planning Commission of the City of Longview.

**Conservation easement** means an interest or right of use over a property, less than fee simple, to protect, preserve, maintain, improve, restore, limit the future use of, or conserve for open space purposes, any land or improvement on the land.

**Critical aquifer recharge area** means areas that are determined to have a critical recharging effect on aquifers used as a source for potable water and that are vulnerable to contamination from recharge.

**Critical areas** include the following areas and ecosystems: 1) wetlands; 2) fish and wildlife habitat conservation areas; 3) frequently flooded areas; 4) geologically hazardous areas; and 5) areas with a critical recharging effect on aquifers used for potable water as defined in RCW 36.80A and this chapter.

**Critical areas permit** means a written authorization issued by the Department via letter or other instrument, including issuance of a building permit, declaring that the identified development or regulated activity complies with the provisions of this ordinance, and/or specifying the conditions with which such development or regulated activity must comply.

**Department** means the Community Development Department of the City of Longview.

**Development** means any land use alteration consisting of the construction or exterior expansion of structures; grading, dredging, drilling, dumping; filling; clearing; removing sand, gravel, or minerals; bulk heading; driving of pilings; or any project of a temporary or permanent nature that modifies structures, land, wetlands, or shorelines and that does not fall within the allowable exemptions contained in this chapter.

**Director** means the Director of the Community Development Department of the City of Longview, or the director's designee.



**Dynamic settlement** means the vertical settlement of the ground surface due to earthquake-induced liquefaction. Settlement can range from less than 1 inch to several feet and can cause extensive damage to structures and underground utilities.

**Enhancement** of wetlands means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydro-periods, or some combination of these activities.

**Erosion hazard area** means those areas containing soils that, according to the United States Department of Agriculture Natural Resources Conservation Service, are recognized as having high erosion potential. The soil types are indicated as having a severe or very severe erosion hazard.

**Establishment** (creation) of wetlands means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydro-period, create hydric soils, and support the growth of hydrophytic plant species.

**Excavation** means mechanical removal, redistribution, or disturbance of soil or substrate from its point of origin.

**Feasible alternative** means an alternative that is available and reasonably capable of being accomplished after taking into consideration cost, existing technology, and logistics in light of overall project purposes. It may include an area not owned by the applicant, which could have been obtained, utilized, expanded, or managed to fulfill the basic purpose of the proposed activity.

**Field investigation** means an inspection of a site by a qualified expert and/or the Director to document conditions and facts to ascertain if the site contains any critical or environmentally sensitive areas, as defined.

**Filling** means the act of placing fill material (on any critical area), including the temporary stockpiling of fill material.

**Fill material** means a deposit of earth or other natural or man made material placed by artificial means.

**Fish and wildlife habitat conservation areas** means those areas identified as being of critical importance to the maintenance and survival of both fish and wildlife. The definition of fish and wildlife habitat conservation areas does not include such

artificial features or constructs as drainage ditches that lie within the boundaries of and are maintained by a port district.

**Frequently flooded areas** means lands in the flood plain subject to at least a one percent or greater chance of flooding in a given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface.

**Functions and Values** mean the services provided by critical areas to society, including but not limited to improving and maintaining water quality, providing fish and wildlife habitat, supporting terrestrial and aquatic food chains, reducing flooding and erosive flows, wave attenuation, historical or archaeological importance, educational opportunities, and recreation.

**Geologically hazardous areas** mean areas susceptible to erosion, sliding, earthquake, ground swelling, or other geologic events.

**Geotechnical investigation report** means a study of geologically hazardous areas where the qualified expert evaluates the hazard areas by performing a subsurface investigation (i.e. borings, test pits, cone penetration tests). A subsurface investigation shall include obtaining soil samples and testing for soil strength. A subsurface investigation is required for landslide and seismic (i.e. liquefaction) hazards, unless the qualified expert can provide compelling evidence as to why a Geotechnical Investigation is not required.

**Geotechnical reconnaissance report** means a study of geologically hazardous areas where the qualified expert evaluates the hazard areas with a visual site reconnaissance. A subsurface investigation (i.e. borings, test pits, cone penetration tests) is not required. A reconnaissance level study is acceptable to evaluate erosion, volcanic and mine hazards, unless the qualified expert determines that a more thorough Geotechnical Investigation Report is necessary. A Geotechnical Reconnaissance is not appropriate for evaluating landslide and seismic (i.e. liquefaction) hazards, unless compelling evidence can be provided by the qualified expert.

**Grading** means altering the degree of the slope by mechanical means including removal, redistribution, or disturbance to the soil or substrate from its point of origin.

**Hydrologic unit** means an area of land above or upstream from a specific point on a stream, which is enclosed by a topographic divide such that direct run-off from precipitation normally drains by gravity into the stream, or from the area above the specified point on the stream.

**Indigenous** means any native species of plant or wildlife that occurs naturally on a particular site or area.

**Lake** means a naturally existing or artificially created body of standing water, including reservoirs, 20 acres or greater in size, which exist on a year-round basis, and occurs in a depression of land or expanded part of a stream.

**Landfill** means a disposal facility or part of a facility at which solid waste is placed within or on land.

**Landslide hazard area** means areas at risk of mass movement due to combination of geologic, topographic, and hydrologic factors.

**Lateral spread** means the lateral movement of the ground surface due to earthquake-induced liquefaction. When soil liquefies, blocks of mostly intact, surficial soil move downslope or towards a free face along a shear zone that forms at the top of the liquefied soil. Lateral soil movement can be on the order of inches to several feet and can cause extensive damage to structures and underground utilities (Bartlett 1995).

**Liquefaction** means a phenomenon where the strength and stiffness of a saturated, generally loose/soft soil is reduced by earthquake shaking. Soils that are generally considered potentially liquefiable include sand, low plasticity silty sand, low plasticity clayey sand, and low plasticity silt, although other soil types have proven to also be potentially liquefiable. Liquefaction and related phenomena such as dynamic settlement and lateral spreading have been responsible for tremendous amounts of damage to structures such as streets, underground and above ground utilities, underground tanks, buildings, and retaining walls in historical earthquakes around the world. A recent, local example of liquefaction occurred throughout the region affected by the 2001 magnitude 6.8 Nisqually Earthquake near Olympia (Johansson 2000).

**Mitigation** means actions designed to replace project-induced critical area losses or impacts; including, but not limited to, restoration, establishment (creation), enhancement, or preservation. Mitigation should be sequenced in the following order: 1) avoiding the impact altogether by not taking a certain action or parts of an action; 2) minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts; 3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment ; 4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; 5) compensating for the impact by replacing, enhancing, or providing substitute resources or environments, and/or; 6) monitoring the impact and taking appropriate corrective measures.

**Mitigation bank** means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by critical areas permits. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.

**Mitigation plan** means a plan that outlines the activities that will be undertaken to avoid, minimize, and compensate project impacts to critical areas detailed in this chapter.

**Non-native species** means a plant or animal species that is not indigenous to the local area.

**Oak woodlands** mean stands of pure oak or oak/conifer associations that are 0.50-acre or greater in size where canopy coverage of the oak component of the stand is 25 percent; or where total canopy coverage of the stand is less than 25 percent, but oak accounts for at least 50 percent of the canopy coverage present.

**Open space** means land satisfying the definition for “open space land” in the City of Longview, and eligible for tax assessment at its current use value as authorized by RCW 84.34.

**Ordinary high water mark** means that mark that will be found by examining the bed and banks of water bodies and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology. Provided, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water.

**Pond** means a naturally existing or artificially created body of standing water less than 20 acres in size and not defined as “shorelines of the state” by RCW 90.58 (Shoreline Management Act). Ponds may include reservoirs that exist on a year round basis and occur within a depression of land or expanded part of a stream. A pond is bounded by the ordinary high water mark or the extension of the elevation of the pond’s ordinary high water mark within the stream, where the stream enters the pond.

**Preservation** of wetlands means 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. Preservation does not result in a gain of wetland area or functions.

**Priority habitats** means a habitat type with unique or significant value to many species with one or more of the following characteristics: comparatively high fish and wildlife densities, fish and wildlife species and/or diversity, fish and wildlife breeding habitat, fish and wildlife seasonal habitat, fish and wildlife movement corridors, limited availability, high vulnerability to habitat alteration, or unique or dependent species as determined by the Washington Department of Fish & Wildlife’s priority habitat and species list, as it now exists or as it is hereafter amended .

**Priority species** means fish and wildlife species requiring protective measures and/or management guidelines to ensure their perpetuation, as determined by the Washington Department of Fish & Wildlife’s priority habitats and species list, as it now exists or as it is hereafter amended.

**Public ditches** means the ditches and associated diking and levee system that fall under the jurisdiction of, or where the water surface elevation is controlled by, the Consolidated Diking Improvement District (CDID) #1.

**Qualified expert** means a person with experience, education, and/or professional degrees and training pertaining to the critical areas in question, and who possesses experience with performing field investigations, analyzing critical area functions and values, analyzing critical area impacts, and recommending critical area mitigation and restoration. The Director shall require potentially qualified experts to demonstrate the basis for qualifications and shall make final determination as to qualifications. Demonstration of qualifications may include, but not be limited to, relevant professional experience, technical certification(s), and/or recognition through publication of technical papers or journals.

A **qualified expert for wetlands** means a biologist or ecologist who has a bachelor's degree in biology, ecology, wetland science, hydrology, soil science, botany, natural resource management, or a related field, from an accredited college or university; at least two years of full-time work experience as a wetlands professional, including delineating wetlands using the federal manual and regional supplement, preparing wetland reports and wetland ratings, conducting function assessments, and developing and implementing mitigation plans.

A **qualified expert for fish and wildlife habitat conservation areas** shall have a bachelor's degree in wildlife biology and/or stream ecology or related field from an accredited college or university and has at least two years of professional experience related to the subject species.

A **qualified expert for geological hazards** shall be a geotechnical engineer or engineering geologist licensed in the state of Washington.

A **geotechnical engineer** means a person who has a bachelor's degree in civil engineering from an accredited college or university, at least 5 years experience as a practicing geotechnical engineer, and is a registered professional engineer (P.E.) in the state of Washington (meeting the requirements of RCW 18.43.040). The licensed engineer shall have demonstrated experience conducting geotechnical investigations, analyzing geologic hazards, and preparing reports for the relevant type of hazard.

An **engineering geologist** means a licensed geologist in the state of Washington with a specialty license in engineering geology meeting the requirements of WAC 308-15-055. The licensed engineering geologist shall have demonstrated experience analyzing geologic hazards and preparing reports for the relevant type of hazard.

A **qualified groundwater expert** means a hydrogeologist, geologist, engineer, or other scientist who meets all the following criteria:

1. Has received a baccalaureate or post-graduate degree in the natural sciences or engineering from an accredited college or university; and
2. Has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater vulnerability.

**Re-establishment** of wetlands means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Re-establishment results in rebuilding a former wetland and results in a net gain in wetland area and functions. Activities could include, but not be limited to, removing fill material, plugging ditches, or breaking drain tiles.

**Regulated activity** means activities occurring in or near and/or potentially affecting a critical area or associated buffer that is subject to the provisions of this chapter. Regulated activities include, but are not limited to, filling, dredging, dumping or stockpiling, draining, excavation, flooding, construction or reconstruction, driving pilings, obstructing, shading, clearing, or harvesting.

**Rehabilitation** of wetlands means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded wetland. Rehabilitation results in a gain in wetland function, but does not result in a gain in wetland area. Activities could involve breaching a dike to reconnect wetlands to a floodplain or returning tidal influence to a wetland.

**Resource agency** means a designated city, county, state, or federal agency with specific regulatory authority that provides technical information that may be used in the interpretation and enforcement of this ordinance.

**Restoration** of wetlands means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland area, restoration is divided into two categories: re-establishment and rehabilitation.

**Riparian or Riparian habitat** means the area adjacent to channelized or flowing aquatic systems (e.g. rivers, perennial and intermittent streams, seeps, and springs) that contains elements of both aquatic and terrestrial ecosystems that mutually influence each other.

**Seismic hazard areas** are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. Areas mapped in the moderate to high risk category on Liquefaction Susceptibility Map of Cowlitz County, Washington should be considered in a Seismic Hazard Area.

**Site** means any parcel or combination of contiguous parcels or right-of-way, or a combination of contiguous rights-of-way under the applicant's ownership or control where the proposed project may impact a critical area or its buffer.

**Slope** means an inclined earth surface, the inclination of which is expressed as the ratio of vertical distance to horizontal distance. In these regulations, slopes are generally expressed as a percentage of the vertical distance to the horizontal distance. A 40 percent slope refers to a 40-foot rise in the vertical distance over a horizontal distance of one hundred feet. An inclination of 45 degrees is a 100 hundred percent slope.

**Stream** means those areas where surface water flow sufficiently to produce a defined channel or bed. A defined channel or bed is an area which demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds and defined channel swales. The channel or bed need not contain water year round. This definition is not meant to include irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used to convey streams naturally occurring prior to construction. For regulatory purposes under this chapter, once streams are identified, the streams are typed according to WAC 222-16-031.

**Substrate** means the soil, sediment, decomposing organic matter, or combination of those located on the bottom surface of a wetland.

**Undisturbed buffer** means a protective area left in its natural state, except for any access and/or utility crossings approved by the Director, between land development and critical areas.

**Utility line** means pipe, conduit, cable or other similar instrument by which services are conveyed to the public or individual recipients. Such services shall include, but are not limited to water supply, electric power, natural gas, communications, and sanitary sewer.

**Wetland** 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 include swamps, marshes, bogs, and similar areas, and also include artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, such as irrigation and drainage ditches, grass-lined swales, canals, detention facilities, waste water treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway.

**Volcanic hazard area** means areas subject to pyroclastic flows, lava flows, and inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity.

#### **17.10.060 Applicability and Regulated Activities**

A. Applicability. This chapter shall be consistently applied to any land use or development under City jurisdiction within the geographical areas that meet the definitions and criteria for critical areas regulation as set forth in this chapter. The approximate location and extent of known or suspected critical areas are indicated on a series of maps adopted as part of this chapter and housed within the Community Development Department of the City of Longview. These maps are approximate and other resources also will be used to identify critical areas. The following critical areas shall be regulated in accordance with this chapter:

1. Wetlands;

2. Fish and wildlife habitat conservation areas;
  3. Frequently flooded areas;
  4. Geologically hazardous areas; and
  5. Critical aquifer recharge areas.
- B. Regulated Activities. All persons proposing development or alteration, whether on public or private property, within critical areas: wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, critical aquifer recharge areas, or the largest regulated buffer for the applicable critical areas and proposed development or alteration, as described in this chapter, shall first apply for a critical areas permit pursuant to this chapter, except as exempted pursuant to Longview Municipal Code (LMC) 17.10.070. All critical areas permit applications shall proceed in conformance with this section. Development activities shall include, but are not limited to, the following:
1. Removing, clearing, grading, excavating, disturbing, or dredging soil, sand, gravel, minerals, organic matter, or materials of any kind;
  2. Dumping, discharging, or filling with any material;
  3. Any development or use that requires approvals under existing or subsequently adopted development codes of the City;
  4. Any project that requires a permit under the building code in effect at the time of application that alters the footprint of the building or increases impervious surfaces;
  5. New construction or any expansion of new public or private road or driveway;
  6. Destroying, planting, or altering vegetation through clearing, harvesting, cutting, intentional burning, shading, or planting non-native species where these activities would alter the character of a critical area, or its buffer;
  7. Draining, filling, flooding, disturbing the water level, water table, or wetland area;
  8. Activities causing direct or indirect adverse changes in water temperature, physical, or chemical characteristics of wetland water sources, including water quantity and quality as stated in RCW 90.03 and WAC 173.201A to wetlands or surface water systems;
  9. Any other activities affecting a wetland or wetland buffer not otherwise exempt from the provisions of this ordinance; and
  10. Wetlands, streams, lakes, or ponds created as mitigation for approved land use activities or that provide critical habitat are not exempt and shall be regulated according to the provisions of this chapter.

### **17.10.070 Exemptions**

The following activities shall be exempt from the provisions of this chapter, provided they are otherwise consistent with the applicable provisions of other local, state, and federal regulations. For additional exemptions in wetlands and buffers, refer to LMC 17.10.110.D.



- A. Those activities and uses conducted pursuant to the Washington State Forest Practices Act and its rules and regulations, RCW 76.09.240 and WAC 222-12-030, where state law specifically limits local authority, except those developments requiring local approval for Class IV – General Forest Practices Permits (conversions) as defined in RCW 76.09 and WAC 22-12.
- B. Development occurring within a volcanic hazard area as described in LMC 17.10.140 and containing no other critical areas as defined by this chapter.
- C. Development occurring within frequently flooded areas provided the development meets the requirements of Chapter 17.24 LMC, Flood Damage Prevention; except, other critical areas within the frequently flooded area will continue to be regulated by applicable provisions of this chapter.
- D. Maintenance.
  - 1. Maintenance, operation, and reconstruction of existing public and private roads, streets, driveways, and the installation, construction, or replacement of utility lines in improved City rights-of-way, not including electric substations, provided that reconstruction of any such facilities are not expanded within, or do not extend outside the previously disturbed areas within a critical area or designated buffer.
  - 2. Maintenance, operation, and reconstruction of existing structures and equipment operating areas, provided that reconstruction of any such structures and facilities are not expanded within, or does not extend outside the previously disturbed areas within a critical area or designated buffer.
  - 3. Maintenance of ground cover or other vegetation in a critical area or buffer area that was disturbed prior to the effective date of this chapter, provided that no further disturbance is created. Maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures or utilities, provided that such management actions:
    - a. Do not expand farther into the critical area;
    - b. Are not the result of an expansion of the structure or utility; and
    - c. Do not directly impact an endangered or threatened species.
  - 4. Maintenance of intentionally created wetlands or surface water systems, including irrigation and drainage ditches, grass-lined swales and canals, detention facilities, and landscape or ornamental amenities created from upland/non-wetland areas. Wetlands, streams, lakes, or ponds created as mitigation for approved land use activities or that provide critical habitat are not exempt, and shall be regulated according to LMC 17.10.110.E, Tables 17.10.110-1, -2, or -3. State or federal regulations may apply to wetlands not regulated under this chapter.
  - 5. Ongoing operation and maintenance of diking, levees or drainage systems, sub-flood control zones, which are part of a system of existing dikes, levees, ditches, drains, or other facilities that were created, developed or used primarily as part of a drainage or diking system as defined by this chapter. The area exempt from review hereunder for maintenance and operation is the land

occupied by an existing system of dikes and levees This area shall be maintained in a manner that meets the federal standards for funding assistance for dike and levee repairs; provided further that restoration of the riparian habitat, including re-vegetation of native species compatible with ongoing maintenance and protection of the diking system, occurs to the extent feasible. Operation and maintenance does not include the expansion or creation of new dikes, levees, or drainage ditches and related facilities, which could contribute to degradation of existing wetlands.

- E. The removal or control of vegetation within stormwater or flood control sloughs and ditches maintained by the CDID, or the City on the effective date of this ordinance, as deemed necessary by the Public Works Director of the City and/or the CDID District Engineer.
- F. Minimal site investigative work required by the City, state, or federal agency, or any other applicant such as surveys, soil logs, percolation tests, and other related activities provided impacts on environmentally critical areas are minimized and disturbed areas are restored to the pre-existing level of function and value within 1 year after such tests are concluded.
- G. Scientific, educational, or low-impact recreational uses such as pedestrian trails <5 feet wide, wildlife viewing structures, and sport fishing that do not degrade the functions of the critical area. Trails must meet the requirements in LMC 17.10.110.D.3.1.
- H. Habitat restoration activities consistent with local watershed action planning efforts and designated a priority by the Lower Columbia Fish Recovery Board.
- I. Reconstruction of damaged or destroyed structures within the same building footprint. Expansion or reconstruction within a new or expanded footprint that affects a nonexempt critical area or critical area buffer is subject to the provisions of this title.
- J. Clearing, as minimally necessary, for:
  - 1. Stream bank restoration, for native replanting, or enhancements in critical areas or critical area buffers; and
  - 2. Soil, water, vegetation, and resource conservation projects having received an environmental permit from a public agency in critical areas or critical area buffers.
- K. The harvesting or normal maintenance of vegetation in a manner that is not injurious to the natural reproduction of such vegetation.
- L. Enhancement of a wetland or its buffer through the removal of non-native invasive plant species. Removal of invasive plant species shall be restricted to removal by hand labor or light equipment unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. All removed plant material shall be taken away from the site and appropriately disposed of. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds shall be handled and disposed of according to a

noxious weed control plan appropriate to that species. Re-vegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.

M. Existing Agricultural Activities and Structures.

1. Agricultural activities and structures in operation at the time of adoption of the ordinance codified in this chapter that are affecting wetlands not associated with a riparian corridor are exempt from regulation under this chapter; and
2. Changes in agricultural practices within the same “footprint” as the existing agricultural activities, including reconstruction of existing agricultural structures, are exempt from regulation under this chapter.

N. Stormwater Management Facilities. A wetland or its buffer can be physically or hydrologically altered to meet the requirements of a LID, Runoff Treatment or Flow Control BMP if ALL of the following criteria are met:

1. The wetland is classified as a Category IV or a Category III wetland with a habitat score of 3-4 points;
2. There will be “no net loss” of functions and values of the wetland;
3. The wetland does not contain a breeding population of any native amphibian species;
4. The hydrologic functions of the wetland can be improved as outlined in questions 3, 4, 5 of Chart 4 and questions 2, 3, 4 of Chart 5 in *Selecting Mitigation Sites Using a Watershed Approach* (Washington Department of Ecology Publication No. 09-06-032); or the wetland is part of a priority restoration plan that achieves restoration goals identified in a Shoreline Master Program or other local or regional watershed plan;
5. The wetland lies in the natural routing of the runoff, and the discharge follows the natural routing;
6. All regulations regarding stormwater and wetland management are followed, including but not limited to local and state wetland and stormwater codes, manuals, and permits; and
7. Modifications that alter the structure of a wetland or its soils will require permits. Existing functions and values that are lost shall be compensated according to the standards in LMC 17.10.110.G.

Stormwater LID BMPs required as part of New and Redevelopment projects can be considered within wetlands and their buffers. However, these areas may contain features that render LID BMPs infeasible. A site-specific characterization is required to determine if an LID BMP is feasible at the project site.

O. Emergency Actions. Emergency actions are those actions, which shall be undertaken immediately, or for which there is insufficient time for full compliance with this chapter, when it is necessary to:

- Prevent an imminent threat to public health or safety;
- Prevent imminent danger to public or private property; or

- Prevent an imminent threat of serious environmental degradation.
1. All emergency activities undertaken within a critical area wetland or fish and wildlife habitat conservation area shall be fully mitigated in accordance with LMC 17.10.110 and 17.12.020 and LMC 17.10.120 and 17.12.030.
  2. In the event an agency with jurisdiction or emergency agency determines that the need to take emergency action is so urgent that there is insufficient time for review by the Department, such emergency action may be taken immediately.
  3. Any person or agency undertaking such action shall notify the Department within one working day following the commencement of the emergency activity. Following such notification, the Department shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the Department determines that the action taken or part of the action taken is beyond the scope of allowed emergency actions, then the enforcement actions of LMC 17.10.180 shall apply.

### **17.10.080 Exception – Reasonable Use**

Exceptions to this chapter may be made when the imposition of the standard would deny an applicant all reasonable use of the property. If an applicant asserts that application of this chapter would deny all reasonable use of the property, the applicant may apply for a reasonable use exception. This exception is intended to address those cases in which the application of this chapter unreasonably restricts all economic use of a parcel of land and the restriction cannot be remedied by other authorized techniques or conditions.

- A. The Board shall have the power to grant reasonable use exceptions. A request for a reasonable use exception shall be made on forms provided by the Director and shall accompany an application for a development permit. The application shall include, as applicable, a critical areas checklist, critical areas permit application (according to LMC 17.10.090.C), critical areas report, and mitigation plan, if necessary. Before an application for a reasonable use exception is acted upon, all of the matters relating to the application shall be reviewed by the Director and his/her findings and conclusions shall be transmitted to the Board. The Board shall review and act on the application following the procedures of Chapter 19.12 LMC, Appeal Board of Adjustment.
- B. Reasonable Use Review Criteria. The criteria for review and approval of reasonable use exceptions are:
  1. The application of this chapter will deny all reasonable economic use of the subject property as otherwise allowed by applicable law.
  2. The proposal will result in no net loss of critical area functions and values consistent with the best available science.
  3. The proposal is consistent with other applicable regulation and standards.
  4. No other reasonable use of the property has less impact on critical areas.
  5. Any alteration allowed is the minimum necessary to allow for reasonable use of the subject property.

6. The inability of the applicant to derive reasonable use of the subject property is not the result of actions by the applicant after the effective date of this chapter, or its predecessor.
7. The proposal does not pose an unreasonable threat to the public health, safety or welfare on or off the proposed development site.
8. Appropriate mitigation for the adverse effects to critical areas is incorporated into the project design.
9. The following specific exceptions shall apply in implementing the standards of this chapter. Mitigation for unavoidable adverse impacts shall be required. The standards of this chapter shall not be used to preclude the following activities in wetland areas:
  - a. The placement of a single-family residence mobile or manufactured home and normal accessory structures as defined in Chapter 19.09 Zoning on an otherwise legally buildable lot of record. Standards may be applied on established properties to limit the proposed location and size of structures and proposed removal of vegetation.
  - b. The expansion of a legally established development area existing prior to May 2002 up to 250 square feet more than the May 2002 footprint may be located in a critical area buffer. Expansion toward the critical area should be avoided. The expansion shall be constructed using low impact development practices.
  - c. The replacement of a mobile or manufactured home with another dwelling and normal accessory structures.
- C. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.
- D. Nothing in this chapter shall be used to prevent the construction of a structure, subject to the standards in LMC 17.10.080, Exception-Reasonable Use, on a lot legally created prior to the establishment of this chapter.

#### **17.10.090 Critical Areas Permits: Applications & Approvals**

When an applicant submits an application for any development proposal, the application shall indicate whether any critical area is located on the site. The Director or designee may visit the site, and in conjunction with the review of the information provided by the applicant and any other suitable information, shall make a determination as to whether or not sufficient information is available to evaluate the proposal. If it is determined that the information presented is not sufficient to adequately evaluate a proposal, the Director shall notify the applicant that additional studies as specified in this chapter and Chapter 17.12 LMC, Standards for Preparing Critical Areas Reports and Mitigation Plans, shall be provided.

- A. Pre-application Conference. Any person preparing to submit an application for development or use of land that may be regulated by the provisions of this chapter shall first apply for a pre-application conference, unless waived by the Director in

concurrence with applicant. At this meeting, the Director shall discuss the requirements of this chapter; provide applicable critical areas maps, scientific information and other source materials. He/she shall summarize the application review process and work with the proponent to identify potential issues that may arise during the review process in addition to discussing other permit procedures and requirements.

- B. Critical Areas Permit: Coordination with Other Permits. To avoid duplication, the information required by this section shall be coordinated by the City with the assessments and requirements for other associated permits, including environmental reviews as directed by the Director for activities otherwise categorically exempt from SEPA.
- C. Request for Determination of Critical Areas.
  - 1. The Director will conduct a preliminary environmental review, based on existing in-house resources and data, to determine if critical areas are known or suspected to exist on the applicant's parcel; however, the ultimate burden of proof is on the applicant to provide sufficient data to the Director should the Director suspect critical areas are present. For the determination, the Director will need the following:
    - a. A completed master application and vicinity map;
    - b. An assessor's map of the property;
    - c. Critical areas checklist provided to the Director and signed by the applicant; and
    - d. Other information as determined by the Director.
  - 2. The Director shall review the information on the forms submitted by the applicant, the critical areas maps, and any other resource information available as part of the determination process. Additionally, s/he shall conduct a site visit to ascertain the characteristics of subject property and to verify the presence of critical areas.
  - 3. The Director shall have the option of soliciting comments or technical assistance on the Critical Areas determination from resource agencies. These agencies shall have 14 days from the date the application is circulated by the City for comments. If a response is not received from the resource agency within the 14-day review period, the City will assume there are no comments on the determination forthcoming from the resource agency.
  - 4. When the determination of critical areas has been completed, a written report will be issued to the applicant, placed in an address file, and a copy sent to the property owner if different from the applicant. A property owner may request a re-evaluation by the Department once in any 12-month period when a change in physical conditions or government institutional actions warrants such re-evaluation.
- D. Critical Areas Permit Application Procedures. A critical areas permit is required if it is determined that the proposed alteration or development is located within a critical area or associated buffer.

The permit application shall at a minimum include the following:

1. A completed master application, signed by the applicant and the property owner if different from the applicant, a vicinity map, a SEPA environmental checklist, and any supplemental information required by the Director.
  2. A site plan drawn to scale. The site plan should clearly depict the following information:
    - a. North arrow;
    - b. Property line dimensions; and
    - c. Location and dimensions of all existing and proposed development or alterations, including public and private roads, sewer and water lines, wells, utilities, easements, water sources, lakes and springs, drainage facilities, on-site sewage disposal and drain field areas within the property boundary, and the location of all critical areas and buffers.
  3. Critical Areas Reports. The City may require the applicant to submit a critical areas report according to the standards in Chapter 17.12 LMC, Standards for Preparing Critical Areas Reports and Mitigation Plans. The report shall be adequate for the Director to evaluate the development proposal and all probable adverse impacts to critical areas regulated by this chapter. If adequate factual information exists to facilitate such evaluation, the Director may determine that a critical areas report is not necessary. Critical areas reports shall be attached to the development permit application package.
- E. Expert Qualifications and City Review. All critical areas reports and mitigation plans required of the applicant by this chapter shall be prepared by a qualified expert. The Director's decision to require additional studies will be based on the complexity of the project and/or a site inspection. The applicant for development shall be responsible for any cost associated with preparing critical areas reports and/or additional studies.
- F. Comments. The Department shall have the option of soliciting comments or technical assistance on the critical areas permit application from resource agencies. These agencies shall have 14 days from the date the application is circulated by the City for comments. If a response is not received from the resource agency within the 14-day review period, the City will assume there are no comments on the project or activity forthcoming from the resource agency.
- G. Permit Action. For development permits where the land use decisions can be made administratively, the Director may approve, approve with modifications and/or conditions, or deny a critical areas permit. For development permits where land use decisions are made by the planning commission, city council, or the board, the decision-making body may approve, approve with modifications and/or conditions, or deny a critical areas permit as part of the overriding action. Any notification of approval shall include the conditions, modifications and restrictions regarding the location, character, and other features of the proposed development that the Director finds necessary to make the proposal compatible with the purposes and standards of this chapter. Prior to notification of approval, approval with conditions/modifications, or denial, the decision-maker(s) shall make findings that:

1. Confirm the nature and type of critical areas;
  2. Determine if a proposed alteration critical areas meets the standards contained in this chapter; and
  3. Determine if the assurances for the mitigation proposed by the applicant are sufficient to protect or mitigate the critical areas consistent with this chapter.
- H. Permit Duration. Permitted construction shall start within the time limitations specified for the underlying development permit approval or final appeals decision. Permits may be extended concurrent with extensions for the underlying development permit. There shall be no limit on the number of critical areas permit extensions granted, recognizing that there may be limitations on the number of extensions of the underlying development permit. Permits run with the land.
- I. Notice on Title. The critical areas, associated buffer, and any mitigation areas shall be located in a critical areas tract or a conservation easement. Proof of establishment of Notice on Title for the critical areas, buffers, and mitigation areas shall be provided to the Department. The notice shall state the presence of the critical areas, buffers, or mitigation area on the property, the application of this chapter to the property, and the fact that limitations on actions in or affecting the critical areas or buffers may exist. The notice shall run with the land.

#### **17.10.100 Critical Areas Inventory Maps**

- A. The approximate location and extent of critical areas and lands within the City's planning area are shown on the maps adopted as part of this chapter. A summary of map sources is listed in Table 17.10.100. These maps are based on the best available information and are intended to be used as a general guide for the assistance of property owners and as information for the public. Since boundaries are generalized, field investigations and analysis by a qualified expert may be required to confirm the existence of critical areas.
- B. In addition, the Washington Department of Natural Resources base maps for stream types and topography provide an indication of the location of fisheries resources. Field conditions shall be used to determine the existence or extent of any classified stream area. Washington Department of Fish & Wildlife maps of threatened and endangered species and habitat may be consulted. Wildlife critical areas shall be field located by a qualified expert based on applicable criteria.
- C. Flood hazard areas are mapped by the Federal Emergency Management Agency.
- D. In the event of any conflict between the location, designation, or classification of a critical area shown on the City maps and the criteria or standards of this section, the criteria and standards and the determination of any field investigation shall prevail.



<b>Table 17.10.100 Summary of Map Sources</b>	
<b>Topic</b>	<b>Map and Data Sources</b>
Potential Wetland Indicators	Web Soil Survey, U.S. Department of Agriculture, Natural Resource Conservations Service
	National Wetlands Inventory Maps, Wetland Mapper, U.S. Department of Interior, U.S. Fish and Wildlife Service
Fish and Wildlife Habitat Conservation Areas	Priority Habitat and Species Maps, Washington Department of Fish & Wildlife
	Forest Practice Act Stream Type Maps, Washington Department of Natural Resources
	Washington Natural Heritage Data Set, Washington Department of Natural Resources
	StreamNet <sup>TM</sup> operated by the Pacific States Marine Fisheries Commission and funded by the Bonneville Power Administration
	SalmonScape, Washington Department of Fish & Wildlife (maps anadromous and resident salmonid distributions from the Salmon and Steelhead Habitat Assessment Program (SSHIAP))
Frequently Flooded Areas	Flood Insurance Rate Maps, Federal Emergency Management Agency, National Flood Insurance Program
Geologically Hazardous Areas	Digital Landslide Inventory for the Cowlitz County Urban Corridor, Washington, Washington Division of Geology and Earth Resources, Washington Department of Natural Resources, May 2006 (Wegmann 2006)
	Liquefaction Susceptibility Map of Cowlitz County, Washington, Division of Geology and Earth Resources, Washington Department of Natural Resources, September 2004 (Palmer 2004)
	2004 USGS Quaternary Fold and Fault Database for the United States, Hoquiam 1° x 2° Sheet (USGS 2004)
	Volcanic-Hazard Zonation for Mount St. Helens, Washington, 1995 (Wolfe and Pierson 1995)
	Interactive geologic Maps and Geologic Information Portal, Washington Department of Natural Resources
	Web Soil Survey, U.S. Department of Agriculture, Natural Resource Conservations Service

### 17.10.110 Wetlands

- A. Designation. Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved federal wetland delineation and applicable regional supplement or as revised. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and subject to the provisions of this chapter.
- B. Categorization. Wetlands shall be rated according to the Washington Department of Ecology's *Washington State Wetland Rating System for Western Washington: 2014 Update* (Publication No. 14-06-029, or as revised and approved by Ecology). The rating system document contains the definitions and methods for determining if the criteria below are met:
  - 1. Category I. Category I wetlands are:
    - a. Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program, Department of Natural Resources;
    - b. Mature and old growth forested wetlands larger than 1 acre;
    - c. Wetlands that perform many functions well, scoring 23 points or more on the rating form; or
    - d. Category I wetlands represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain some ecological attributes that are impossible to replace within a human lifetime, or provide a very high level of functions.
  - 2. Category II. Category II wetlands are:
    - a. Wetlands with a moderately high level of functions, scoring between 20 and 22 points on the rating form.
  - 3. Category III. Category III wetlands are:
    - a. Wetlands with a moderate level of functions, scoring between 16 and 19 points on the rating form;
    - b. Can often be adequately replaced with a well-planned mitigation project; and
    - c. Wetlands scoring between 16 and 19 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
  - 4. Category IV wetlands are:
    - a. Wetlands with the lowest levels of functions (scoring fewer than 16 points on the rating form) and are often heavily disturbed.
    - b. These are wetlands that we should be able to replace or, in some cases, to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions and should be protected to some degree.
- C. Development Standards. Development or clearing activities shall protect the functions of wetlands and wetland buffers on the site. Activities shall result in no

net loss of wetland or buffer functions. Alteration of all regulated wetlands and associated buffers should be fully mitigated and not be allowed unless the mitigation sequencing standards in LMC 17.10.110.G has been followed.

1. In Category I Wetlands, only the following activities may be allowed:
  - a. Installation of utilities such as water, sewer, stormwater conveyance, gas, electric, cable, fiber optic cable or telephone, expansion of existing roads, utilities and railroads and maintenance of existing levees or dikes, provided that impacts are minimized and that mitigation for any unavoidable impacts to wetland functions is conducted. New roads, dikes and levees shall only be allowed if compliance to LMC 17.10.160, Variances, is demonstrated.
  - b. Enhancement and restoration activities aimed at protecting the soil, water, vegetation or wildlife.
2. In Category II Wetlands, the following activities may be allowed:
  - a. Activities allowed in Category I wetlands;
  - b. Activities that are mitigated in accordance with an approved critical areas report for wetlands and an approved mitigation plan per LMC 17.12.010 and 17.12.020.
3. In Category III and IV Wetlands, the following activities may be allowed:
  - a. Activities allowed in Category I and II wetlands; and
  - b. Activities that are mitigated in accordance with an approved critical areas report for wetlands and an approved mitigation plan according to LMC 17.12.010 and 17.12.020.

D. Wetland Exemptions, Partial Exemptions, and Allowed Activities in Wetland Buffers

1. Exempted Wetlands. The following wetlands are exempt from the buffer provisions contained in this chapter and the avoidance and minimization described in LMC 17.10.110.G.1, Mitigation Sequencing. They may be filled if impacts are fully mitigated based on provisions in LMC 17.10.110.G, Compensatory Mitigation. To verify the following conditions, a critical areas report for wetlands, meeting the requirements in LMC 17.12.010 and 17.12.020, shall be submitted.
  - a. Category III and IV wetlands less than 4,000 square feet may be exempted from the avoidance and minimization of mitigation sequencing in LMC 17.10.110.G.1 when compliance to the following is fully demonstrated by a qualified expert:
    - i. Wetland is not associated with riparian areas or buffers;
    - ii. Wetland is not part of a wetland mosaic;
    - iii. Wetland does not score 5 or more points for habitat function based on the *Washington State Wetland Rating system for Western Washington: 2014 Update* (Ecology Publication No. 14-06-029, or as revised and approved by Ecology);
    - iv. Wetland does not contain Priority Habitat or a Priority Area for a Priority Species identified by the Washington Department of Fish &

Wildlife, does not contain federally listed species or their critical habitat, or species of local importance identified in LMC 17.10.120; and

- b. Artificial. Wetlands created from non-wetland sites including, but not limited to, wetlands intentionally created from non-wetland sites, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, stormwater facilities, farm ponds, and landscape amenities; provided, that wetlands created as mitigation shall not be exempted.
  - c. Riparian. Wetlands fully within the ordinary high water mark for streams, lakes, and ponds.
2. Partial Exemptions. The activities listed below are allowed in wetlands and wetland buffers and do not require submission of a critical areas report or a critical areas permit, except where such activities would result in a loss of the functions and values of a wetland or wetland buffer.
- a. Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing wetland.
  - b. The harvesting or normal maintenance of vegetation in a manner that is not injurious to the natural reproduction of such vegetation.
  - c. Drilling for utilities/utility corridors under a wetland or buffer, with entrance/exit portals located completely outside of the wetland buffer, provided that the drilling does not disturb the groundwater connection to the wetland or percolation of surface water down through the soil column. Specific studies by a qualified hydrogeological expert may be necessary to determine whether the groundwater connection to the wetland or percolation of surface water down through the soil column will be disturbed.
  - d. Enhancement of a wetland through the removal of non-native invasive plant species. Removal of invasive plant species shall be restricted to hand removal unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. All removed plant material shall be taken away from the site and appropriately disposed of. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds shall be handled and disposed of according to a noxious weed control plan appropriate to that species. Re-vegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.
  - e. Land disturbance, including fill, in wetlands or their associated buffers cumulatively less than 5 cubic yards in volume and 300 square feet in area, provided that the wetland hydroperiod is not significantly affected.
3. Allowed Activities in Wetland Buffers. In addition to the activities identified in LMC 17.10.110.E.2, Partial Exemptions, the following uses may be allowed within a wetland buffer, but not within a wetland, following the review procedures of this chapter, provided they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland. Prior to development or

alteration within the wetland buffer, the applicant shall demonstrate mitigation sequencing according to LMC 17.10.110.G.1.

- a. Passive recreation facilities designed and in accordance with an approved critical areas report, including:
  - i. Walkways and pervious surfaced trails, provided that pathways are limited to minor crossings having no adverse impact on wetland hydrology. They should be generally parallel to the perimeter of the wetland, located only in the outer 50 percent of the wetland buffer, and located to avoid removing established native woody vegetation. They should be limited to pervious surfaces no more than 5 feet in width. Raised boardwalks with non-treated pilings may be acceptable.
  - ii. Wildlife-viewing structures.
- b. Stormwater Management Facilities. Stormwater management facilities, limited to detention facilities, constructed wetlands, stormwater dispersion outfalls and bioswales, are only allowed in buffers of wetlands with low habitat function (less than 4 points on the habitat section of the Western Washington wetland rating form). Stormwater management facilities are prohibited within forested wetland buffers. They may be allowed within the outer 25 percent of the buffer of Category III or IV wetlands only, provided that:
  - i. No other location is feasible;
  - ii. The location of such facilities will not degrade the functions or values of the wetland; and
  - iii. Are designed to blend with the natural landscape.
- c. Road and Utility Crossings. Crossing buffers with new roads and utilities is allowed, provided that:
  - i. Impacts to buffers are minimized; and
  - ii. Buffer functions are replaced.
- d. Other Regulated Activities. Other regulated activities other than pedestrian trails, stormwater management facilities and road and utilities crossings are allowed in the buffer if all of the following conditions are met:
  - i. The activity is temporary and will cease or be completed within 3 months of the date the activity begins;
  - ii. The activity will not result in a permanent structure in or under the buffer;
  - iii. The activity will not result in a reduction of buffer acreage or function; and
  - iv. The activity will not result in a reduction of wetland acreage or function.

- E. Wetland Buffers. Wetlands buffers shall be determined by the Director, in accordance with the standards below.

1. **Standard Buffer Widths.** Buffers are required for all regulated wetlands. Wetland buffer widths are established in Tables 17.10.110-1, -2, and -3 of this section, and are based on the corresponding wetland rating category and land use intensity. Land use intensities are shown in Table 17.10.110-4. Category IV wetland buffers are based solely on the water quality buffers specified in Table 17.10.110-1.

<b>Table 17.10.110-1. Wetland Buffers Required to Protect Water Quality Functions</b>			
<b>Wetland Rating</b>	<b>Low Intensity Use</b>	<b>Moderate Intensity Use</b>	<b>High Intensity Use</b>
Category I: Bogs & Wetlands of High Conservation Value	150 ft.	225 ft.	300 ft.
Category I: Based on Total Score	50 ft.	75 ft.	100 ft.
Category II	50 ft.	75 ft.	100 ft.
Category III	40 ft.	60 ft.	80 ft.
Category IV	25 ft.	40 ft.	50 ft.

<b>Table 17.10.110-2. Wetland Buffers Required to Protect Habitat Functions in Category I and II Wetlands</b>			
<b>Habitat Score in the rating form</b>	<b>Low Intensity Use</b>	<b>Moderate Intensity Use</b>	<b>High Intensity Use</b>
4 points or less	See Table 17.10.110-1	See Table 17.10.110-1	See Table 17.10.110-1
5 points	70 ft.	105 ft.	140 ft.
6 points	90 ft.	135 ft.	180 ft.
7 points	110 ft.	165 ft.	220 ft.
8 points	130 ft.	195 ft.	260 ft.
9 points	150 ft.	225 ft.	300 ft.

**Table 17.10.110-3. Wetland Buffers Required to Protect Habitat Functions in Category III Wetlands**

Habitat Score in the rating form	Low Intensity Use	Moderate Intensity Use	High Intensity Use
4 points or less	See Table 17.10.110-1	See Table 17.10.110.-1	See Table 17.10.110-1
5 points	60 ft.	90 ft.	115 ft.
6 points	65 ft.	95 ft.	120 ft.
7 points	75 ft.	100 ft.	125 ft.

**Table 17.10.110-4. Land Use Intensity Matrix**

	Low	Moderate	High
<b>Parks and Recreation</b>	Natural fields and grass areas, viewing areas, split rail fencing	Impervious trails, engineered fields, fairways	Greens, tees, structures, parking, lighting, concrete or gravel pads, security fencing
<b>Streets and Roads</b>	Does not apply	Residential driveways and access roads	Public and private streets, security fencing, retaining walls
<b>Stormwater Facilities</b>	Outfalls, spreaders, constructed wetlands, bioswales, vegetated detention basins, overflows	Wet ponds	Maintenance access roads, retaining walls, vaults, infiltration basins, sedimentation fore bays and structures, security fencing
<b>Utilities</b>	Does not apply	Maintenance access roads	Paved or concrete surfaces, structures, facilities, pump stations, towers, vaults, security fencing
<b>Commercial/Industrial</b>	Underground and overhead utility lines, manholes, power poles (without footings)	Does not apply	All site development
<b>Residential</b>	Density at or lower than 1 unit per 5 acres	Density between 1 unit per acre and higher than 1 unit per 5 acres	Density higher than 1 unit per acre

2. **Measurement.** Buffers shall be measured outward from the delineated boundaries of the regulated wetland and extend the required distance.
3. **Functional Separation.** Areas that are functionally separated from a wetland and do not protect the wetland from adverse impacts may be excluded from buffers otherwise required. Such areas may include but are not limited to pre-existing and legally established impervious surfaces such as roads and driveways, buildings, and structures that vertically separate such as maintained flood control dikes.
4. **Buffer Demarcation.** As a condition of any permit or authorization issued pursuant to this chapter, the Director may require the applicant to install permanent signs and/or permanent fencing along the upland boundary of the wetland buffer area. The permanent signs and/or permanent fencing shall be perpetually maintained by the property owner. Permanent non-treated wood or non-galvanized metal signs shall be posted at an interval of one per lot for single family residential uses or at a maximum interval of 200 feet or as otherwise determined by the Director. The sign shall be worded as follows or with alternative language approved by the Director: "Wetland and Wetland Buffer – Please retain in a natural state. Alteration or disturbance is prohibited by law. Please call the City of Longview for more information."

F. **Wetland Buffer Modifications.**

1. **Wetland Buffer Width Averaging.** Wetland buffer averaging may be permitted when all of the following conditions are met:
  - a. The applicant demonstrates to the Department that the wetland contains variations in sensitivity due to existing physical characteristics, that lower intensity land uses would be located adjacent to areas where the buffer width is reduced, and that width averaging will not adversely impact the wetland functional values.
  - b. The total area contained within the buffer after averaging shall be at least functionally equivalent and equal in size to the area contained within the standard buffer prior to averaging.
  - c. The buffer at its narrowest point shall never be less than 75 percent of the required width.
2. **Wetland Buffer Width Reduction.** The wetland buffer may be reduced by up to 25 percent provided that:
  - a. The buffer is restored or enhanced from a pre-project condition that is disturbed (e.g., dominated by invasive species), so that functions of the post-project wetland and buffer are equal or greater. Restoration or enhancement activities can include, but are not limited to, planting of non-invasive native trees or shrubs, increasing the diversity of plant cover types, or replacement of non-invasive exotic species with native species, or specific measures to improve hydrologic or habitat functions, in accordance with the mitigation standards in LMC 17.11.110.G; and
  - b. A buffer mitigation plan shall be required, and shall be prepared by a qualified expert and reviewed and certified by a qualified expert certifying that the enhancement measures will complement, enhance, and support the functions of the adjacent wetland.



3. Minimum Buffer Width. In the case of buffer averaging and buffer reduction via LMC 17.10.110.F:
  - a. The minimum buffer at its narrowest point shall not be less than the low intensity land use water quality buffer contained in Table 17.10.110-1;
  - b. Buffer width reduction shall not be used in combination with buffer width averaging on the same resource on a property or site; and
  - c. Where multiple resources exist on a property or site, the Department may authorize the use of buffer width averaging and buffer width reduction on different resources on the property or site provided that any required scientific analysis or reporting addresses and supports the separate use.

G. Compensatory Mitigation.

1. Mitigation Sequencing. Before impacting any wetland or its buffer, an applicant shall demonstrate that the following actions have been taken. Actions are listed in the order of preference:
  - 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 by repairing, rehabilitating, or restoring the affected environment;
  - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
  - e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; or
  - f. Monitoring the impact and taking appropriate corrective measures.
2. Requirements for Compensatory Mitigation. The following additional standards apply to the approval of all activities permitted within wetlands or their buffers under this section:
  - a. All unavoidable adverse impacts to all regulated wetlands and buffers shall be specified in a compensatory mitigation plan consistent with LMC 17.12.020.B and be prepared by a qualified expert.
  - b. When an applicant proposes to alter or eliminate a regulated wetland, he/she shall be required to provide compensatory mitigation for lost or diminished functions based upon an evaluation procedure such as is found in *Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington* (Washington Department of Ecology Publication No. 10-06-011). When compensatory mitigation of a wetland is proposed, the wetland and associated buffer shall be mitigated at the ratio designated in Table 17.10.110-5.

<b>Table 17.10.110-5 Standard Wetland Mitigation Ratios</b>					
<b>Category &amp; Type of Wetland Impacts</b>	<b>Reestablishment or Creation</b>	<b>Rehabilitation Only</b>	<b>Reestablishment or Creation (R/C) + Rehabilitation (RH)</b>	<b>Reestablishment or Creation (R/C) + Enhancement (E)</b>	<b>Enhancement Only</b>
<b>Category I</b> Bogs & Wetlands with High Conservation Value	Not considered possible	6:1 rehabilitation of a Natural Heritage Wetland	Not considered possible	Not considered possible	Case-by-case
<b>Category I</b> forested	6:1	12:1	1:1 R/C & 10:1 RH	1:1 R/C & 20:1 E	24:1
<b>Category I</b> based on score for functions	4:1	8:1	1:1 R/C & 6:1 RH	1:1 R/C & 12:1 E	16:1
<b>Category II</b>	3:1	6:1	1:1 R/C & 4:1 RH	1:1 R/C & 8:1 E	12:1
<b>Category III</b>	2:1	4:1	1:1 R/C & 2:1 RH	1:1 R/C & 4:1 E	8:1
<b>Category IV</b>	1.5:1	3:1	1:1 R/C & 1:1 RH	1:1 R/C & 2:1 E	6:1

- c. Wetland Mitigation Ratios. The mitigation ratios provided in Table 17.10.110-5 are target ratios. Ratios may be increased or decreased to address site-specific situations. It is up to the project proponent to provide the justification for a decrease in the standard ratios. Preservation may be used as a mitigation strategy in some cases. Recommended preservation ratios can be found in Section 6.5.5 of the *Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance*, Publication No. 06-06-011a, or as revised, but final actual ratios may be subject to review by the Washington Department of Ecology and/or the Department.
- i. Increased Replacement Ratio. The Department or designee may increase the ratios under the following circumstances:
- Uncertainty exists as to the probable success of the proposed restoration or creation;
  - A significant period of time will elapse between impact and replacement of wetland functions;
  - Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or

- (d). The impact was an unauthorized impact.
- ii. Decreased Replacement Ratio. The Department may decrease the ratios under the following circumstances:
  - (a). Documentation by a qualified expert demonstrates that the proposed mitigation actions have a very high likelihood of success;
  - (b). Documentation by a qualified expert demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the wetland being impacted; or
  - (c). The proposed mitigation actions are conducted in advance of the impact and are consistent with federal rules, state policy on advance mitigation, and state water quality regulations in *Interagency Regulatory Guide: Advance Permittee-Responsible Mitigation* (Ecology Publication No. 12-06-015) or as revised.
- 3. Compensating for Lost or Affected Functions. Compensatory mitigation shall address the functions affected by the proposed project with an intent to achieve functional equivalency or improved functions. The goal shall be for the compensatory mitigation to provide wetland functions similar to those lost.
- 4. Approaches to Compensatory Mitigation. Mitigation for lost or diminished wetland or buffer functions shall rely on the approaches listed below.
  - a. Wetland Mitigation Banks. Credits from a wetland mitigation bank may be approved for use as mitigation for unavoidable impacts to wetlands when the bank is certified under Chapter 173-700 WAC; and:
    - i. The Department determines that the wetland mitigation bank provides appropriate mitigation for the authorized impacts;
    - ii. The impact site is located in the service area of the bank or is approved on a case-by-case basis by the Interagency Review Team;
    - iii. The proposed use of credits is consistent with the terms and conditions of the certified mitigation bank instrument; and
    - iv. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the certified mitigation bank instrument.
  - b. Permittee-Responsible Wetland Mitigation. In this situation, the permittee typically performs the mitigation after the permit is issued (unless the goal is an advance mitigation site) and is ultimately responsible for implementation and success of the mitigation. Permittee-responsible mitigation may occur at the site of the permitted impacts or at an off-site location within the same watershed. Permittee-responsible mitigation shall be selected based on a watershed approach, as detailed in the Washington Department of Ecology's *Selecting Mitigation Site Using a Watershed Approach Publication* (Publication No. 09-06-032 or as revised and approved by Ecology).
- 5. Location of Permittee-Responsible Compensatory Mitigation. Compensatory mitigation actions shall generally be conducted within the same sub-drainage basin and on the site of the alteration except when the applicant can

demonstrate that off-site mitigation is ecologically preferable. The following criteria will be evaluated when determining whether the proposal is ecologically preferable. When considering off-site mitigation, preference should be given to using alternative mitigation, such as a mitigation bank or advance mitigation.

- a. There are no reasonable opportunities on site or within the sub-drainage basin (e.g., on-site options would require elimination of high-functioning upland habitat), or opportunities on site or within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and required widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity).
- b. On-site mitigation would require elimination of high-quality upland habitat.
- c. Off-site mitigation has a greater potential or opportunity to provide wetland functions than the altered wetland.
- d. Off-site locations shall be in the same sub-drainage basin unless:
  - i. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site; or
  - ii. Credits from a state-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the certified bank instrument.
- e. The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland.

#### **17.10.120 Fish and Wildlife Habitat Conservation Areas**

- A. Designation and Classification. Critical fish and wildlife habitat conservation areas are designated according to the classifications in Table 17.10.120-1. Designated critical areas are subject to the provisions of this chapter and shall be managed consistent with the best available science, such as the Washington Department of Wildlife's *Management Recommendations for Priority Habitats and Species*. Consultation may occur with the Washington Department of Fish & Wildlife for confirmation of designations.

Table 17.10.120-1. Fish and Wildlife Habitat Conservation Areas	
Habitat Classifications	Description
1. Areas with which federal or state designated endangered, threatened, or sensitive species have a primary association.	Areas, which, if significantly altered, may reduce the likelihood that the species will reproduce over the long term. Federally designated species are those identified by U.S. Fish and Wildlife or the National Marine Fisheries Service. State designated species are those identified by the Washington Department of Fish & Wildlife. These habitats are designated as critical areas, where endangered, threatened, and sensitive species are verified to have a primary association.
2. State Priority Habitats and areas associated with State Priority Species.	Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by the Washington Department of Fish & Wildlife.
3. Species and Habitats of local importance and high quality ecosystems.	<p><b>Habitat:</b> Unique habitats of local importance that regionally rare plant or wildlife species depend upon and that have high plant or wildlife concentrations, including riparian habitat.</p> <p><b>Species:</b> Wildlife species that require protective measures for their continued existence due to their population status or sensitivity to habitat alterations or are highly valued by the local citizens. Species meeting the above criteria but not depending upon a habitat of local importance (as listed above) to meet criteria habitat needs are those documented, verified, and mapped in the City of Longview as mapped by the Washington Department of Fish &amp; Wildlife or identified by a qualified expert.</p> <p><b>High Quality Ecosystems:</b> High quality ecosystems are those that are identified by the Washington Department of Natural Resources through the Natural Heritage Program.</p>

<b>Table 17.10.120-1. Fish and Wildlife Habitat Conservation Areas</b>	
<b>Habitat Classifications</b>	<b>Description</b>
4. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat.	Naturally occurring ponds are waters with a surface area of less than 20 acres but greater than 1 acre and man-made ponds developed as mitigation as part of a permitting process or mitigation agreement. Naturally occurring ponds do not include ponds deliberately created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds (of less than three years duration), and landscape amenities, unless such artificial ponds were intentionally created for mitigation.
5. Waters of the State.	Waters of the State include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington, as classified in WAC 222-16-030 and 222-16-031.

B. Development Standards. Regulated development, as described in LMC 17.10.060, shall conform and be governed by the following items in this subsection, and in LMC 17.10.120.C through 17.10.120.F below:

1. Standards contained in this section shall be used to develop plans in accordance with LMC 17.12.030.B submitted for regulated activities so that impacts to critical fish and wildlife habitats can be minimized.
2. Consider habitat in site planning and design.
3. Locate buildings and structures in a manner that preserves the majority of habitat or minimizes adverse impacts.
4. Consolidate habitat and vegetated open space in contiguous blocks, and where possible locate habitat contiguous to other habitat, open space or landscaped areas to contribute to a continuous system or corridor that provides connections to adjacent habitat areas.
5. Use non-invasive native species in any landscaping of disturbed or undeveloped areas and in any enhancement of habitat or buffers.
6. Emphasize heterogeneity and structural diversity of vegetation in landscaping.
7. Remove and/or control any noxious or non-native species of plants.
8. Preserve existing trees to the extent possible, preferably in consolidated areas.
9. Single Oregon white oak trees or oak habitat areas less than 0.50 acres should be avoided but may be cleared if three trees a minimum of 2-inches dbh are planted for each tree removed. Replaced trees shall be planted within the City's urban growth boundary.

10. Preserve and introduce native plant species that serve as food, shelter from climatic extremes and predators, and structure and cover for reproduction and rearing of young for wildlife.
  11. Preserve the existing hydraulic functions of drainage systems.
  12. Preserve critical fish and wildlife habitat conservation areas through maintenance of stable channels, adequate low flows, and management of storm water runoff, erosion, and sedimentation to the furthest extent possible.
  13. Manage access to critical fish and wildlife habitat conservation areas to protect species, which are directly affected by human disturbance. The outer perimeter of the habitat conservation area or buffer and the limits of those areas to be disturbed pursuant to an approved permit or authorization shall be temporarily marked in the field in such a way as to ensure that no unauthorized intrusion will occur and shall be verified by the Director prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.
  14. As a condition of any permit or authorization issued pursuant to this chapter, the Director may require the applicant to install permanent signs and/or permanent fencing along the boundary of a habitat conservation area or buffer. Permanent wood or metal signs shall be posted at an interval of one per lot for single family residential uses or at a maximum interval of 200 feet or as otherwise determined by the Director, and shall be perpetually maintained by the property owner. The sign shall be worded as follows or with alternative language approved by the Director: "The area beyond this sign is a fish and wildlife habitat conservation area. Alteration or disturbance is prohibited by law. Please call the City of Longview for more information."
  15. Maintain or enhance water quality through control of runoff and use of best management practices and the City's Stormwater Management (Chapter 17.80 LMC).
  16. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.
  17. All planned and unintended impacts to critical areas shall be fully mitigated, The applicant shall demonstrate no net loss in overall functions in accordance with LMC 17.12.030.B.
- C. Overlap of Critical Areas. LMC 17.10.100, notwithstanding, if a fish or wildlife habitat classification is determined to be a wetland, then the regulations that provide the greater protection shall apply.
- D. Habitat Protection.
1. Classifications 1 and 2. A habitat management plan may be required to be prepared in accordance with the standards contained in LMC 17.12.030.B if the regulated activity is within 250 feet of a Classification 1 or 2 Habitat Area or identified within 1,000 feet of a point location (nests, dens, etc.) for a Classification 1 Habitat Area (Table 17.10.120-1).

- a. A Habitat Management Plan will be prepared by a qualified expert in accordance with the standards contained in LMC 17.12.030.B.
  - b. Habitat Management Plans shall be sent to the Washington Department of Fish & Wildlife and other appropriate state and federal agencies for comment with the SEPA environmental checklist and peer review for a 14-day comment period. If a response is not received from the agencies within the 14-day review period, the City will assume there are no comments on the project or activity forthcoming from those agencies. Copies of comments received by other agencies will be forwarded to the City of Longview, Community Development Department.
2. Habitat Protection for Classification 3. Protection for these habitat areas shall be through the development of standards listed in LMC 17.10.120.B as developed by a qualified expert.
  3. Habitat Protection for Classification 4 and 5. Protection for these habitat areas shall be through the Shoreline Management Act, the federal Clean Water Act, and the state Hydraulic Code and/or Best Management Practices. Within Classification 5, Type N, F, and S waters, as defined in Chapter 222-16-030 WAC, Forest Practices Board, Definitions, are regulated waters.

E. Riparian Buffers.

1. Riparian Buffer Widths. Riparian buffers shall be required for all regulated activities adjacent to streams. All riparian buffers shall be measured from the ordinary high water mark, and shall require the appropriate buffers shown on Table 17.10.120-2, and are based on stream type definition.
2. Stream Types. Stream types are defined based on WAC 222-16-030. Streams are those areas where surface waters flow sufficiently to produce a defined channel or bed, which demonstrates evidence of passage of water as defined in LMC 17.10.050, Definitions.
  - a. **Type S streams** means all waters, within their bankfull width, inventoried as “shorelines of the state” under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW including periodically inundated areas of their associated wetlands.
  - b. **Type F streams** mean segments of natural waters other than Type S, which are within their bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.50 acre or greater at seasonal low water and which contain fish habitat.
  - c. **Type Np streams** means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are flowing waters that do not go dry any time of the year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.
  - d. **Type Ns streams** means all segments of natural waters within the bankfull width of the defined channel that are not Type S, F, or Np streams. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is Type Np.



Type Ns streams must be physically connected by an above-ground channel system to Type S, F, or Np streams.

<b>Table 17.10.120-2. Standard Riparian Buffer Widths</b>	
<b>Stream Type (WAC 222-16-030)</b>	<b>Buffer</b>
<b>Type S</b> – Shorelines of the State	200 ft.
<b>Type F</b> – Fish-bearing streams (>5 feet wide)	150 ft.
<b>Type F</b> – Fish-bearing streams (<5 feet wide)	125 ft.
<b>Type Np</b> – Non-fish bearing streams - perennial	100 ft.
<b>Type Ns</b> – Non-fish bearing streams - seasonal	50 ft.

3. **Functional Separation.** Areas that are functionally separated from a fish and wildlife habitat conservation area and do not protect the habitat area from adverse impacts may be excluded from buffers otherwise required. Such areas may include but are not limited to pre-existing and legally established impervious surfaces such as roads and driveways, buildings, and structures that vertically separate such as maintained flood control dikes.
  4. **Buffer Demarcation.** As a condition of any permit or authorization issued pursuant to this chapter, the Director may require the applicant to install permanent signs and/or permanent fencing along the upland boundary of the fish and wildlife habitat conservation area. The permanent signs and/or permanent fencing shall be perpetually maintained by the property owner. Permanent wood or metal signs shall be posted at an interval of one per lot for single family residential uses or at a maximum interval of 200 feet or as otherwise determined by the Director. The sign shall be worded as follows or with alternative language approved by the Director: "Fish and Wildlife Habitat Conservation Buffer– Please retain in a natural state. Alteration or disturbance is prohibited by law. Please call the City of Longview for more information."
- F. Fish and Wildlife Habitat Conservation Area Buffer Modifications.**
1. **Riparian Buffer Averaging.** Subject to review under the standards contained in this chapter, portions of the riparian buffer may be reduced up to 50 percent from the normal standards of this chapter if:
    - a. The riparian buffer widths are correspondingly increased elsewhere within the applicant parcel.
    - b. The applicant demonstrates that the overall size, function and values of the riparian buffer are maintained.
    - c. In no event shall the width of the riparian buffer be less than 25 feet.
    - d. Buffer width averaging shall not be used in combination with buffer width reduction.

2. Buffer Width Reduction. Buffers may be reduced by up to 50 percent if an applicant undertakes measures approved by the Department. These measures include, but are not limited to:
  - a. Enhancing the buffer and demonstrating no loss of functions, including, but not limited to, planting of non-invasive native trees or shrubs, increasing the diversity of plant cover types, or replacing non-invasive exotic species with native species in accordance with the mitigation standards in LMC 17.10.110.G.1.
  - b. A mitigation plan prepared by a qualified expert.
3. Buffer Width Increase. In some instances, wider riparian buffer widths may be necessary to protect sensitive wildlife species, such as bald eagle nests or heron rookeries, which depend on streams and wetlands, or to protect surface waters from slope failures and soil erosions. These standards will be applied on a case-by-case basis depending upon site specific and watershed system information, such as fish and wildlife habitat needs, site topography, hydrology and other factors. Applicants for development are encouraged to consult the Washington Department of Fish & Wildlife's *Management Recommendations for Washington's Priority Habitats – Riparian* (1997) to design appropriate buffers.

#### **17.10.130 Frequently Flooded Areas**

- A. Designation and Classification. All flood hazard areas shall be as identified on the Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (FEMA), dated December 16, 2015, as now or hereafter amended. These maps are hereby adopted by reference and declared to be part of this chapter.
- B. Development Standards. All development within designated frequently flooded areas shall comply with the Chapter 17.24 LMC, Flood Damage Prevention, as now or hereafter amended.

#### **17.10.140 Geologically Hazardous Areas**

- A. Designation. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events as designated under RCW 36.70A. Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area:
  1. Landslide hazard;
  2. Erosion hazard;
  3. Seismic hazard;
  4. Volcanic hazard; and
  5. Mine hazard.
- B. Geotechnical Reconnaissance Reports and Geotechnical Investigation Reports. All regulated activities proposed within a geologically hazardous area shall be

evaluated by a geotechnical reconnaissance or geotechnical investigation. Erosion, volcanic, and mine hazard areas may be evaluated by a geotechnical reconnaissance. If the qualified expert determines that these hazards cannot be fully evaluated with a geotechnical reconnaissance, then a geotechnical investigation shall be required. Landslide and seismic hazard areas shall be evaluated by a geotechnical investigation, unless a compelling reason can be provided by the qualified expert that a geotechnical reconnaissance is appropriate.

- C. Classification: Landslide Hazard Areas. Landslide hazard areas are those areas meeting any of the following criteria:
1. Areas of historic failure, such as areas designated as quaternary slumps, earthflows, mudflows, or landslides.
  2. Any area with the following characteristics:
    - a. Slope greater than 15 percent, and
      - i. Steep hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock, or
      - ii. Springs or groundwater seepage.
    - b. Any slope 40 percent or steeper with a vertical relief of 10 or more feet.
  3. Slopes that are parallel or sub-parallel to planes of weakness; such as bedding planes, joint systems, and fault planes.
  4. Slopes having gradients greater than 80 percent and subject to rock fall during seismic shaking.
  5. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action.
  6. Areas located in a canyon, on an active alluvial fan, or that are presently subject to inundation by debris flows or catastrophic flooding.
  7. Other areas as the City Engineer may conclude presents potential slide hazards.

- D. Classification: Erosion Hazard Areas. Erosion hazard areas are areas identified by the presence of soils, which are recognized as having high erosion potential in the 2006 Natural Resource Conservation Service *Soil Survey of Cowlitz Area, Washington*, or as amended.

Areas mapped as deep seated slides and seeps, shallow slides, and potentially unstable slopes in the *Digital Landslide Inventory for the Cowlitz County Urban Corridor, Washington* (Wegmann 2006) should also be considered to be in a high erosion hazard area.

- E. Development Standards for Landslide Hazard Areas and Erosion Hazard Areas. Any allowed or regulated activity on areas identified as susceptible to landslide or erosion hazards or their buffers shall conform to the following standards:

1. Grading.

- a. Clearing, grading, and other construction activities shall not create, aggravate or result in slope instability or surface sloughing.
  - b. Undergrowth shall be retained to the maximum extent feasible.
  - c. No dead vegetation (slash), fill, or other foreign material shall be placed within a landslide or erosion hazard area, other than that approved for bank stabilization or if such fill is consistent with authorized activities specified in the geotechnical reconnaissance report or geotechnical investigation report.
  - d. Minimize ground disturbance to the maximum extent feasible.
2. Erosion control will conform to standards in Chapter 17.80 LMC, Stormwater Management, and the following BMPs:
- a. There shall be minimum disturbance of trees and vegetation to reduce erosion and maintain existing stability of hazard areas.
  - b. Vegetation removal on the slopes of banks between the ordinary high-water mark and the top of the banks shall be minimized because of the potential for erosion.
  - c. Vegetation and organic soil material shall be removed from fill site prior to the placement of fill.
  - d. Thinning the limbs of individual trees in accordance with accepted forestry or arboriculture practices is preferred over tree removal as a means to provide a view corridor. The standards in Chapter 13.04 LMC, Trees, Shrubs, and Plants, shall apply as applicable.
  - e. Vegetative cover or engineered ground covers shall be placed on any disturbed surface to the extent feasible.
  - f. For large projects, phasing of the project is preferred to minimize the area subject to erosion. Uncovered areas should not be cleared until previous phases are completed.
3. Drainage.
- a. Surface drainage, including downspouts, shall not be directed across the face of a hazard area. If drainage must be discharged from the top of a hazard area to its toe, it shall be collected above the top and directed to the toe by tight line drain, and provided with an energy-dissipating device at the toe for discharge to a swale or other acceptable natural drainage areas.
  - b. Stormwater retention and detention systems, including percolation systems using buried pipe, are strongly discouraged unless a geotechnical investigation report indicates such a system will not affect slope stability, and the percolation systems are designed by a licensed geotechnical engineer or engineering geologist. The licensed expert shall also certify that the percolation systems are installed as designed.
4. Sewage Disposal System Drainfields.
- a. For the purpose of landslide or erosion control, the sewage disposal drain fields shall be located outside of the hazard area buffer, unless otherwise

justified by a qualified geotechnical engineer. The septic system drain field shall be in compliance with all local government health regulations.

5. Buffers.

- a. The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater. The buffer shall be measured horizontally and is required at the top, toe, and along all sides of any existing landslide or erosion hazard, within a critical geologically hazardous area. The buffer may be less than 50 feet if recommended in the geotechnical reconnaissance report or geotechnical investigation report by a qualified expert and approved pursuant to LMC 17.10.090.
- b. The buffer shall be clearly staked before and during any construction or clearing.

6. Design Guidelines.

- a. Structures should be clustered where possible to reduce disturbance and removal of vegetation.
- b. Foundations should be stepped to the contours of the slope to the greatest extent possible.
- c. Roads, walkways, and parking areas should be designed to parallel the natural contours of the site.
- d. All development proposals shall be designed to minimize impacts of the project.

- F. Classification: Seismic Hazard Areas. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. Areas mapped in the moderate to high risk category on the Liquefaction Susceptibility Map of Cowlitz County, Washington, or the WDNR Interactive Map should be considered in a Seismic Hazard Area.”
- G. Development Standards: Seismic Hazard Areas. All development within areas that meet the classification for seismic hazard areas shall comply with the currently adopted, applicable building code (i.e. International Building Code or International Residential Code).
- H. Classification: Mine Hazard Areas. For the purposes of this classification, mine hazard areas are:
1. Abandoned mines and/or workings where locations are known.
  2. Abandoned mines and/or workings where exact locations are unknown, but based upon the best available information, there is good cause to believe it is within an area, or which may be reasonably delineated.
- I. Development Standards: Mine Hazard Areas. Development adjacent to a mine hazard is prohibited unless the applicant can demonstrate the development will be safe. If a proposal is located adjacent to a mine hazard area, a geotechnical investigation may be required. At this time, the Washington Department of Natural

Resources Geologic Information Portal (<http://www.dnr.wa.gov/geologyportal>) has no record of any mine hazard areas in or immediately adjacent to the City.

- J. Classification: Volcanic Hazard Areas. For the purposes of this classification, all volcanic mudflow hazard areas shall be identified as the 500-year floodplain areas identified in FEMA maps, or identified as a volcanic hazard by the WDNR Geologic Information Portal.
- K. Development Standards: Volcanic Hazard Areas. Development shall comply with existing Federal Emergency Management Agency (FEMA) regulations for floodplain management.

#### **17.10.150 Critical Aquifer Recharge Areas (CARAs)**

- A. Designation. Regulated Aquifer Recharge Areas are those areas with a critical recharging effect on aquifers used for potable water. These aquifers are vulnerable to contamination that would affect the potability of the water supply as defined in WAC 365-190-030(3).
- B. Classification. Critical aquifer recharge areas are those recharge areas with the geologic conditions associated with infiltration characteristics that create a high potential for groundwater contamination or which contribute significantly to the replenishment of groundwater that may be used for potable water to supply the City's public water system. CARAs within the City of Longview jurisdiction may be designated by ordinance based on appropriate hydrogeologic evaluation. Per September 20, 2016 letter from City Engineering Department, there are no designated CARAs within the corporate limits of the City.
- C. Permitted Activities: Critical Aquifer Recharge Areas. The following activities are allowed in critical aquifer recharge areas without the requirement for an aquifer impact report:
  - 1. Construction of or improvements to single- and two-family residences and customary appurtenant structures, or to other structures, not greater than 2,500 square feet in roof area, or such structures together with driveways or parking lots amounting to no greater than a 20 percent increase in impervious surface at the site, whichever is lesser;
  - 2. Parks, recreation, open-space and similar facilities as long as no more than 10 percent of the site is impervious and insofar as such facilities do not use or store or increase the use or storage of hazardous materials or petroleum products, excluding permitted uses of pesticides or petroleum products for normal operation and/or maintenance; and
  - 3. Temporary storage facilities where no more than 5 percent of the site is impervious surface and where hazardous materials or petroleum products are not used or stored except for transport or vegetation maintenance.
- D. Aquifer Impact Reporting Requirement.
  - 1. For all new developments within aquifer recharge areas designated as CARAs, and excepting the uses identified as permitted in LMC 17.10.150.C,

immediately above, or in LMC 17.10.070, Exemptions, an Aquifer Impact Assessment according to the standards contained in LMC 17.12.060 shall be prepared before such development is permitted.

2. An aquifer impact assessment shall be prepared by a qualified groundwater expert meeting the requirements in LMC 17.10.050, Definitions.
3. Aquifer impact assessments will be subject to review by the City Engineer or his/her designees and this review will be forwarded to the Director. If the Director, in coordination with the City Engineer, determines that there is a potential for significant impact to either water quality or quantity in a designated CARA, the Director will make a determination of the need for additional hydrogeological testing and site evaluation as described in LMC 17.12.060. Such evaluation may be performed by the City for the purpose of clarifying the characteristics (size, capacity, boundaries, and quality) of the CARA or may be required of the applicant to quantify the potential impacts to the CARA.

E. Prohibited Uses. The following activities are prohibited in CARAs:

1. Underground or above ground storage tanks that will contain hazardous materials or petroleum products unless such tanks are double walled or located in a sealed containment area with a capacity larger than the tank, and unless such tank locations have adequate warning systems to ensure prompt response in the event of a tank leak or failure.
2. Sanitary landfills.
3. Petroleum product processing, storage, or transfer facilities, unless such facilities are located in a sealed containment area with a capacity larger than the total capacity of petroleum products and hazardous materials on site at any time, or the ground on site is adequately covered by impervious surfaces with berms, wall and drainage features that will capture any spills or contaminated runoff and direct it to a suitable containment area, or any other features necessary to prevent percolation or injection of contamination into the groundwater.
4. Underground injection wells excluding foundation drains or dry-wells servicing roof drains in non-industrial areas that receive only uncontaminated rainwater, or foundation and roof drains that are directed to a containment discharge area that prevents percolation or injection of potentially contaminated water into the groundwater.
5. Mining. Sand and gravel mines may be permitted by exception if the aquifer impact assessment clearly demonstrates that the CARA capacity and quality will not be impaired by the mining activity.
6. Wood treatment or other industrial or commercial activities using hazardous process chemicals or petroleum products that allow any portion of the operational, treatment or manufacturing process to occur over permeable surfaces or areas where contamination has the potential to reach the CARA.
7. Storage or use of radiological materials except in medical practice.

8. Any other activity that significantly reduces aquifer recharge, aquifer flow, or aquifer quality such that the potential for continued potable (public water supply use) is threatened.

#### **17.10.160 Variances**

- A. If an applicant asserts that application of this chapter would deny all reasonable use of the property, the applicant may apply for a variance. A variance is intended to address those cases in which the application of this chapter unreasonably restricts all economic use of a parcel of land and the restriction cannot be remedied by other authorized techniques or conditions.
- B. The Board shall have the power to grant variances. A request for a variance shall be made on forms provided by the Director and shall accompany an application for a development permit. The application shall include, as applicable, a critical areas checklist, critical areas permit application, critical area report, and a mitigation plan, if necessary. Before an application for a variance is acted upon, all of the matters relating to the application shall be reviewed by the Director and his/her findings and conclusions shall be transmitted to the Board. The Board shall review and act on the application following the procedures of Chapter 19.12 LMC, Appeal Board of Adjustment.
- C. Before a variance is granted, it shall be shown by the applicant:
  1. That no other reasonable economic use of the property has less impact on the critical area;
  2. That special conditions and circumstances exist that are peculiar to the land;
  3. That literal interpretation of the provisions of this Ordinance would deprive the person seeking the variance of rights commonly enjoyed by other properties conforming to the terms of this Ordinance;
  4. That the special conditions and circumstances do not result from the actions of the person seeking the variance;
  5. That the granting of the variance requested will not confer on the person seeking the variance any special privilege that is denied by this Ordinance to other applicants, lands, structures, or buildings under similar circumstances;
  6. That the variance requested is the minimum necessary to afford relief; and
  7. That to afford relief the requested variance will not create significant impacts to critical areas and resource lands and will not be materially detrimental to the public welfare or contrary to the public interest.
- D. Any variance granted shall be for the least intrusion into the critical area or buffer necessary to allow an economically viable use of the subject property; and
  1. Any authorized alteration of a critical area or buffer under this section shall be subject to conditions established by the Board in accordance with this chapter, and shall require mitigation under an approved mitigation plan according to Chapter 17.12 LMC, Standards for Preparing Critical Areas Reports and Mitigation Plans.



- E. No variances are allowed on salmon bearing waters or buffers without a Habitat Management Plan approved by the City after a review by state and federal agencies.

#### **17.10.170 Appeals**

- A. Any interpretation or decision made by the Director in the administration of this chapter is final and conclusive unless appealed to and/or modified or reversed by the Appeal Board of Adjustment. Appeals of decisions made by other bodies shall be as directed by the appropriate code governing the underlying action.
- B. Any person aggrieved by a decision of the Director may, within 20 days following the date of the Director's written decision, submit an appeal of the Director's decision. The burden of proof in any appeal is the responsibility of the appellant. Any appeal shall be in written form and filed in accordance with Chapter 19.12 LMC, Appeal Board of Adjustment. Any appeal shall, at a minimum, contain the following information:
  - 1. An explanation and description of how the appellant is aggrieved;
  - 2. A statement describing why the appellant believes the decision of the Director is in error, and the specific relief sought;
  - 3. A statement showing why reversing or modifying a decision of the Director will not be detrimental to public health, safety or welfare, or significantly negate the functions of a critical area, the goals, objectives and policies of the Growth Management Act, and the purpose of this chapter; and
  - 4. A statement describing any mitigating measures the appellant proposes to assure that the function of the critical area will not be irrevocably jeopardized in the event the appeal is successful.
- C. Upon the filing of an appeal, along with the appropriate fee for a public hearing, the Director shall set forth the time and place for a public hearing before the Appeal Board of Adjustment, pursuant to Chapter 19.12 LMC.
- D. Notice of the time, date, and place of the hearing shall be sent to the appellant and the permittee pursuant to LMC 19.12.090. Legal notice of the hearing and posting of the subject property shall be in accordance with LMC 19.12.090.
- E. The Appeal Board of Adjustment shall determine if the decision of the Director should be upheld, upheld with conditions, modified or reversed. Any person aggrieved by the appeal decision regarding a permit pursuant to this chapter may request relief from the Superior Court pursuant to LMC 19.12.170.

#### **17.10.180 Penalties and Enforcement/Violations**

- A. Civil Infraction. Any person who undertakes any activity within a designated critical area or within a required buffer without first obtaining an approval required by this chapter, except as specifically exempted, or any person who violates one or more conditions of any approval required by this chapter or of any cease and desist

order issued pursuant to this chapter shall be guilty of a Class II Civil Infraction and may be assessed a penalty pursuant to LMC 1.30.040.1.b and 2. Each violation of this chapter, or any permit, permit condition, approval or order issued pursuant to this chapter, shall be a separate offense, and, in the case of a continuing violation, each day's continuance shall be deemed to be a separate and distinct offense. All costs, fees and expenses in connection with enforcement actions may be recovered as damages against the violator.

- B. Enforcement by Director. It shall be the responsibility of the Director to enforce the provisions of this chapter, and any permit, order or approval issued pursuant to this chapter. The Director is authorized to issue Notices of Civil Infraction for violations thereof. The issuance of a Notice of Civil Infraction shall not preclude recourse to any other remedies permitted by law.

#### **17.10.190 Liability for Damages**

This chapter shall not be construed to hold the City of Longview, or any officer or employee thereof, responsible for any damages to persons or property by reason of the certification, inspection or non-inspection of any building, equipment or property as herein authorized.

#### **17.10.200 Severability**

Should any section, clause or provision of this chapter or any code adopted hereby be declared by a court to be invalid, the same shall not affect the validity of the remainder, either in whole or in part.

#### **17.10.210 Amendments**

These regulations and the City's Critical Areas Inventory Maps may periodically be amended in accordance with the procedures and requirements in the general statutes and as new information concerning wetland location, soils, hydrology, flooding, wetland plants, fish and wildlife habitat, steep slopes, unstable slopes, frequently flooded areas, geologically hazardous areas, critical aquifer recharge areas, hydric soils, or any other critical or environmental area become available.

**CHAPTER 17.12**  
**STANDARDS FOR**  
**PREPARING CRITICAL AREAS REPORTS & MITIGATION PLANS**

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**17.12.005 Information – Use**

The following information shall be used during the preparation of critical areas reports and mitigation plans by qualified experts.

**17.12.010 Critical Areas Reports**

- A. The applicant shall be required to submit reports as appropriate for the applicable critical areas found in the critical areas determination. The report shall be prepared in accordance with the minimum requirements listed below and within the additional requirements listed for each applicable critical area found in this chapter. Critical areas reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.
- B. The critical areas report and site map shall include:
  - 1. North arrow;
  - 2. Property line dimensions;
  - 3. Location and dimensions of all existing and proposed development or alterations, including public and private roads, sewer and water lines, wells, utilities, easements, water sources, lakes and springs, drainage facilities, on-site sewage disposal, and drain field areas, within the property boundary
  - 4. Location information of property (legal description, parcel number, physical address);
  - 5. The names and contact information of the applicant and the persons preparing the report and conducting any field investigation;
  - 6. The date of any field investigation;

7. As assessment of the probable impacts to critical areas resulting from the development of the site and the proposed development; and
8. A discussion of the development standards applicable to the critical areas and proposed activity.

A mitigation plan, if needed, to offset any impact will be prepared in accordance with mitigation plan requirements of each applicable critical area found in this chapter.

#### **17.12.20 Critical Areas Reports: Wetlands and Wetland Mitigation Plans**

- A. Critical Areas Reports: Wetlands. In addition to the general critical areas reports requirement of LMC 17.12.010 immediately above, a critical areas report for wetlands shall meet the requirements of this section.

A wetland determination report is a limited study and determines the presence or absence of wetlands. A wetland determination is used to provide an environmental analysis to justify that wetlands are not present within the project area.

A wetland delineation report is a more detailed study and is prepared when a project area does contain critical areas. A wetland delineation report shows the boundary of the wetland as determined in the field and provides detailed analysis of environmental conditions and regulatory requirements.

1. Preparation by a Qualified Expert. A critical areas report for wetlands and an on-site wetland determination or wetland delineation report shall be prepared by a qualified expert for wetlands meeting the requirements in LMC 17.10.050, Definitions.
2. Critical Areas Reports: Wetlands. A critical areas report for wetlands shall contain a written assessment and accompanying maps of the wetlands and their buffers within and adjacent to the project area. The following information shall be provided at a minimum:
  - a. Site characteristics including topography, total acreage of the property, and maps showing delineated wetlands and other water bodies within the study area in accordance with the approved federal wetland delineation manual and applicable regional supplement;
  - b. Assessment of existing conditions of wetlands and wetland buffers including wetland acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions;
  - c. Description of Cowardin classifications of vegetation communities, hydrogeomorphic classification, and estimated distances to and area of other off-site wetlands and water bodies within the vicinity of the subject wetland;
  - d. Identification of the wetland's category as defined in this chapter, including the wetland category using the Washington State *Wetland Rating System for Western Washington: 2014 Update* (Ecology Publication No. 14-06-029 or as revised and approved by Ecology), and appropriate wetland rating forms with associated maps;

- e. A wetland buffer recommendation and rationale for the buffer size based on Tables 17.10.110(D)(1),(2), or (3);
- f. Completed wetland determination data forms from the U.S. Army Corps of Engineers' *Regional Supplement for the Western Mountains, Valleys, and Coast Region: Version 2* (2010), or as revised, numbered to correspond to each sample point;
- g. The following maps, at a minimum:
  - i. USGS quadrangle map drawn to scale and including a north arrow, public roads and other known landmarks in the vicinity with the site boundaries clearly defined.
  - ii. A Natural Resource Conservation Service soil map identifying the soil types and the site boundaries.
  - iii. National Wetlands Inventory Map (U.S. Fish and Wildlife Service showing the site boundaries).
  - iv. Site Map. This map shall be drawn to a useable scale, 1" = 100' or better, and shall include a north arrow and all of the following requirements:
    - (a). Site boundary, property lines and dimensions;
    - (b). Wetland boundaries based upon a qualified expert's delineation, and depicting wetland area, sample points, and Cowardin classes;
    - (c). Recommended wetland buffers;
    - (d). Internal property lines such as rights-of-way and easements;
    - (e). Existing physical features of the site including, but not limited to buildings and other structures, fences, roads, utilities, parking lots, water bodies; and
    - (f). Topographic elevations.
- h. A mitigation plan, if required per LMC 17.10.020.B, below.

- B. Wetland Mitigation Plans. All critical areas mitigation projects required pursuant to this chapter either as a permit condition or as the result of an enforcement action shall follow a mitigation plan approved by the Department prior to any site disturbance. Prior to any submittals of mitigation plans for critical areas alterations, the applicant shall demonstrate mitigation sequencing for any impacts, intentional or otherwise. Mitigation sequencing shall follow the standards described in LMC 17.10.110.G.1.

The Director may determine a peer review be conducted at the applicant's expense. The Director may seek assistance from resource agencies prior to making a decision on the completeness of their application.

- 1. Preparation by a Qualified Expert. When a wetland mitigation plan is required, it shall be prepared by a qualified expert for wetlands meeting the requirements in LMC 17.10.050, Definitions.

2. Critical Areas Reports: Wetlands. A critical areas report for wetlands shall accompany or be included in the mitigation plan and include the minimum parameters described in LMC 17.12.020.A.
3. Wetland Mitigation Plans. Full guidance can be found in *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1)*, Publication No. 06-06-011b, March 2006 or as revised. If a wetland mitigation bank is used to compensate for wetland impacts, then the most current Interagency Review Team guidance for preparing Bank Use Plans should be followed. The wetland mitigation plan shall include a written report and plan sheets that contain, at a minimum, the following elements.
  - a. The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the mitigation plan.
  - b. Description of the proposal.
  - c. Summary of the impacts and proposed mitigation concept.
  - d. Identification of all local, state, and/or federal wetland-related permit(s) required for the project.
  - e. Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands.
  - f. Description of the existing wetlands and buffers proposed to be altered. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions.
  - g. Description of impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Washington Department of Ecology Publication No. 14-06-029, or as revised and approved by Ecology).
  - h. Description of the mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions.
  - i. Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored mitigation areas. Include illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions.
  - j. A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classifications, and categories of wetlands.
  - k. A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands.

- l. A description of the proposed mitigation construction activities and timing of activities.
- m. Performance standards (measureable standards for years post-installation) for upland and wetland communities, a monitoring schedule, and a maintenance schedule and actions proposed by year.
- n. A contingency plan and a schedule for its implementation shall be included in the event the stated objectives are not accomplished.
- o. A description that the monitoring reports shall be submitted to document the performance standards, successes, problems, and contingency actions of the mitigation project. The mitigation project shall be monitored by the applicant or a qualified expert for a period necessary to establish that the mitigation is successful, but not for a period of less than 5 years. Creation and forested wetland mitigation shall be monitored for a period of at least 10 years. Monitoring reports shall be submitted to the Department in Years 1, 3, 5, 7 and 10.
- p. The mitigation area and any associated buffer shall be located in a critical areas tract or a conservation easement pursuant to LMC 17.10.090.I.
- q. The scaled plan sheets for the mitigation site shall contain, at a minimum:
  - i. Boundaries of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions.
  - ii. Existing topography in the zone of the proposed mitigation actions if any grading activity is proposed in the mitigation area(s). Include existing cross-sections of wetland areas on the development site that are proposed to be altered and for the proposed areas of wetland or buffer mitigation.
  - iii. Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes.
  - iv. Required wetland buffers for existing wetlands and proposed mitigation areas.
  - v. A planting plan for the mitigation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, total number of each species by community type, and timing of installation.

#### **17.12.030 Critical Areas Reports: Species & Habitats and Habitat Management Plans**

- A. Critical Areas Reports: Species and Habitat. In addition to the general critical areas report requirements of LMC 17.12.010, a critical areas report for fish and wildlife habitat conservation areas shall meet the requirements of this section. Technical justification shall be provided where any information is not deemed applicable by the qualified expert.

1. Preparation by a Qualified Expert. A critical areas report for fish and wildlife habitat conservation areas and an on-site field investigation to evaluate the potential presence or absence of designated critical fish or wildlife species or habitat shall be prepared by a qualified expert for fish and wildlife habitat conservation areas meeting the requirements in LMC 17.10.050, Definitions.
  2. Critical Areas Reports: Species and Habitat. A fish and wildlife habitat conservation area report is a written report and accompanying maps, which shall contain, at a minimum, the following:
    - a. Identification of any species of local importance, priority species, or state or federally designated endangered, threatened, sensitive, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;
    - b. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish & Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;
    - c. A detailed discussion of the project and direct and indirect potential impacts on habitat by the project, including potential impacts to water quality; and
    - d. A detailed description of vegetation on and adjacent to the project area and its associated buffer and habitat provided to fish and wildlife; and
  3. Additional Information May Be Required. When appropriate due to the type of habitat or species present or the project area conditions, the City Planner may also require the habitat conservation area report to include:
    - a. An evaluation by an independent qualified expert regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate; or
    - b. A request for consultation with the Washington Department of Fish & Wildlife or other appropriate agency or tribe.
- B. Habitat Management Plans. At a minimum, the habitat management plan shall typically contain the following information.
1. Preparation by a Qualified Expert. A habitat management plan shall be prepared by a qualified expert for fish and wildlife habitat conservation areas meeting the requirements in LMC 17.10.050, Definitions.
  2. Critical Areas Reports: Species and Habitat. A critical areas report for fish and wildlife habitat conservation areas shall accompany or be included in the habitat management plan and include the minimum parameters described in LMC 17.12.010.
  3. Habitat Management Plans. The habitat management plan is a written report and plan sheets that shall contain, at a minimum, the following information:
    - a. Name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the plan.



- b. Description of the proposal.
- c. Summary of the impacts and proposed habitat management plan concept.
- d. Identification of all local, state, and/or federal permit(s) required for the project.
- e. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed land use activity.
- f. An analysis of how the proposed development activities will affect fish and wildlife habitat conservation area and any critical species.
- g. Provisions to reduce or eliminate the impact of the proposed development activities on any fish and wildlife habitat conservation area and critical species, and description of replacement of any lost habitat functions.
- h. Prohibition or limitation of development activities within fish and wildlife habitat conservation area.
- i. Establishment of buffers around fish and wildlife habitat conservation areas demonstrating rationale for buffers consistent with WAC 365-195-900 through 365-195-925.
- j. A detailed description of vegetation on and adjacent to the project area and its associated buffers and demonstration of how the applicant will retain vegetation or vegetation critically important to threatened and endangered species,
- k. Establishment of monitoring and management practices that will protect habitat after the site has been development, including proposed monitoring and maintenance programs.
- l. The mitigation area and any associated buffer shall be located in a critical areas tract or a conservation easement pursuant to LMC 17.10.090.I.
- m. Habitat management plan map drawn to scale 1" = 100' or recent land survey showing the following items:
  - i. All lakes, ponds, streams, wetlands, or tidal waters on, or within 300 feet of the subject property, including the name (if named), and ordinary high water mark of each, and stream type and wetland category consistent with WAC 222-16-030 and LMC 17.10.110.B;
  - ii. The location and description of the fish and wildlife habitat conservation area on the subject property, as well as any potential fish and wildlife conservation areas within 300 feet of the subject property as shown on maps identified in the Summary of Map Sources (Table 17.10.100 LMC) and/or housed within the Department;
  - iii. The location of any observed evidence of use by critical species.
- n. Review and comments by the Washington Department of Fish & Wildlife, and other appropriate state and federal agencies that review SEPA environmental checklists.

4. The Director may determine a peer review be conducted by the applicant at the applicant's expense. The Director may seek assistance from resource agencies prior to making a decision on the completeness of the application.

#### **17.12.040 Geotechnical Reconnaissance Reports and Geotechnical Investigation Reports**

- A. Geotechnical Reconnaissance Reports. A geotechnical reconnaissance is intended to be a limited study of geological hazards at a site, and does not include the collection of any subsurface soil, rock and groundwater data (i.e. no borings, test pits or cone penetration tests are performed). The scope of services shall include, at a minimum, a site visit and literature review performed by the qualified expert for geological hazards. A geotechnical reconnaissance is appropriate for erosion, volcanic and mine hazards, but will limit the ability of the qualified expert to evaluate landslide and seismic (primarily liquefaction) hazards. A geotechnical reconnaissance is not acceptable to evaluate landslide and seismic hazards, unless the qualified expert can provide compelling evidence as to why a geotechnical investigation is not required. After evaluating erosion, volcanic, and mine hazards with a geotechnical reconnaissance, it is possible that the qualified expert may recommend preparing a supplemental geotechnical investigation report as detailed in LMC 17.12.040.B.
  1. Preparation by a Qualified Expert. A geotechnical reconnaissance report shall be prepared by a qualified expert for geological hazards meeting the requirements in LMC 17.10.050, Definitions.
  2. Geotechnical Reconnaissance Reports. A geotechnical reconnaissance shall include at the minimum the following.
    - a. A discussion of the surface and subsurface geologic conditions of the site;
    - b. A site plan of the area delineating all areas of the site subject to landslide geological hazards (i.e. erosion, sliding, earthquake, and other geological events) based on mapping and geotechnical evaluation. Additionally, all geological hazards within 200 lateral feet of the site and all landslide hazards off the property but anticipated to impact the proposed development should be indicated on the site plan.
    - c. A contour map of the proposed site, at a reasonable scale (not smaller than 1" = 100') that clearly delineates slopes for ranges between 15 and 29 percent and 30 percent and greater, and includes figures for area coverage of each slope category on the site.
    - d. Site Geology Information.
      - i. Topographic data - contour map of proposed site at a scale no greater than 1" = 100' that clearly delineates the slopes 15 percent and greater, including figures for area coverage of each slope category on the site.
      - ii. Site history - description of any prior grading, soil instability, or slope failure.

- iii. Seismic hazard - data concerning the vulnerability of the site to seismic events.
  - e. Geotechnical Engineering Information.
    - i. Slope stability studies and opinion of slope stability;
    - ii. Proposed angles of cut and fill slopes and site grading requirements;
    - iii. Structural foundation requirements and estimated total and differential foundation settlements, including dynamic settlement in areas determined to be susceptible to soil liquefaction;
    - iv. Soil compaction criteria;
    - v. Proposed surface and subsurface drainage;
    - vi. Lateral earth pressures, including static passive and active earth pressures, as well as dynamic active earth pressures;
    - vii. Erosion vulnerability of site;
    - viii. Suitability for fill, including the use of on-site soils for use as fill;
    - ix. Laboratory data and soil index properties for soil samples; and
    - x. Building limitations.
  - f. Site Evaluation.
    - i. Evaluation of the ability of the site to accommodate the proposed activity. Where a valid geotechnical investigation report has been prepared within the last 5 years for a specific site, and where the proposed activity and surrounding site conditions are unchanged, said report may be used and a new report may not be required, at the discretion of the Director or the City Engineer, and provided the geotechnical report complies with the current building code. The seal of the geotechnical engineer or engineering geologist.
- B. Geotechnical Investigation Reports. A geotechnical investigation report includes investigating subsurface soil, rock, and groundwater conditions to better assess the geological site hazards. The scope of services shall include, at a minimum, a site visit, a subsurface investigation (i.e. borings, test pits, or cone penetration tests) and literature review performed by the qualified expert for geological hazards. A geotechnical investigation shall be required to evaluate landslide and seismic hazards, unless the qualified expert can provide compelling evidence as to why a geotechnical reconnaissance is sufficient.
  - 1. Preparation by a Qualified Expert. A geotechnical investigation report shall be prepared by a qualified expert for geological hazards meeting the requirements in LMC 17.10.050, Definitions.
  - 2. Geotechnical Investigation Reports. The geotechnical investigation report shall include at a minimum the following:
    - a. A discussion of the surface and subsurface geologic conditions of the site.

- b. A site plan of the area delineating all areas of the site subject to landslide geological hazards (i.e. erosion, sliding, earthquake, and other geological events) based on mapping and geotechnical evaluation. Additionally, all geological hazards within 200 lateral feet of the site and all landslide hazards off the property but anticipated to impact the proposed development should be indicated on the site plan.
- c. A contour map of the proposed site, at a reasonable scale (not smaller than 1" = 100') that clearly delineates slopes for ranges between 15 and 29 percent and 30 percent and greater, and includes figures for area coverage of each slope category on the site.
- d. Site Geology Information.
  - i. Topographic data - contour map of proposed site at a scale no greater than 1" = 100' that clearly delineates the slopes 15 percent and greater, including figures for area coverage of each slope category on the site.
  - ii. Subsurface data - logs of borings, test pits and other exploratory methods, soil and rock stratigraphy, groundwater levels including seasonal changes, and laboratory test results.
  - iii. Site history - description of any prior grading, soil instability, or slope failure.
  - iv. Seismic hazard - data concerning the vulnerability of the site to seismic events.
- e. Geotechnical Engineering Information.
  - i. Slope stability studies and opinion of slope stability based on a stated factor of safety for static and dynamic slope stability and a minimum horizontal ground acceleration as established by the current version of the building code (the minimum acceptable factor of safety for static slope stability shall be 1.5 and the minimum acceptable factor of safety for dynamic slope stability shall be 1.1);
  - ii. Proposed angles of cut and fill slopes and site grading requirements;
  - iii. Structural foundation requirements and estimated total and differential foundation settlements, including dynamic settlement in areas determined to be susceptible to soil liquefaction;
  - iv. Soil compaction criteria;
  - v. Proposed surface and subsurface drainage;
  - vi. Lateral earth pressures, including static passive and active earth pressures, as well as dynamic active earth pressures;
  - vii. Erosion vulnerability of site;
  - viii. Suitability for fill, including the use of on-site soils for use as fill;
  - ix. Laboratory data and soil index properties for soil samples; and
  - x. Building limitations.

- f. Site Evaluation.
  - i. Evaluation of the ability of the site to accommodate the proposed activity. Where a valid geotechnical investigation report has been prepared within the last 5 years for a specific site, and where the proposed activity and surrounding site conditions are unchanged, said report may be used and a new report may not be required, at the discretion of the Director or the City Engineer, and provided the geotechnical report complies with the current building code.
- g. The seal of the geotechnical engineer or engineering geologist.

#### **17.12.050 Erosion Hazard Assessments**

- A. Erosion Hazard Assessments.
  - 1. Preparation by a Qualified Expert. An erosion hazard assessment shall be prepared by a qualified expert for geological hazards meeting the requirements in LMC 17.10.050, Definitions.
  - 2. Erosion Hazard Assessments. An erosion hazard assessment is a written report and plan sheets that contain, at the minimum, the following.
    - a. An overview of existing channel characteristics and stream hydraulics at the subject property;
    - b. An assessment of the probability for stream induced erosion to occur on the subject property and the estimated extent of the property that would be affected;
    - c. A site map of the property, drawn to scale, delineating the relationship of the stream to the property, and existing erosion areas and/or potential erosion areas, and the proposed development, including structural dimensions;
    - d. A cross-section map, drawn to scale and at 2-foot contour intervals from the edge of the river's surface to the furthest landward boundary of the property, and including the proposed development.
  - e. The seal of the geotechnical engineer or engineering geologist.

#### **17.12.060 Aquifer Impact Assessments & Hydrogeologic Site Evaluations**

- A. Aquifer Impact Assessments.
  - 1. Preparation by a Qualified Expert. An aquifer impact assessment shall be prepared by a qualified groundwater expert meeting the requirements in LMC 17.10.050, Definitions.
  - 2. Aquifer Impact Assessments. An aquifer impact assessment shall include, at a minimum, the following:
    - a. Identification of the proposed land development activity including size, amount of impervious surface, vehicular usage and storage, and sources of water for consumption and other on-site usage.

- b. Identification of geological, soil, topographic, and hydrologic features and conditions at the subject and abutting properties based on existing public information (e.g. soil surveys, topographic maps, Washington Geology mapping, existing site well logs, etc.). These shall be displayed on a site map.
  - c. Identification of presumptive depth to groundwater.
  - d. Information on springs or wells within 500 feet of the site including information of water quality if readily available.
  - e. Proposed plans for management of runoff including routing and infiltration if applicable. Infiltration of uncontaminated (e.g. roof) runoff is encouraged where feasible.
  - f. Provisions for a groundwater elevation and quality monitoring plan.
  - g. An evaluation of the proposed project impacts on groundwater quality and quantity for the CARA including a plan for the mitigation of any potential impacts on the CARA.
- B. Hydrogeologic Testing and Site Evaluations. If the Director determines that hydrogeologic testing and site evaluation are required for development within a CARA, these investigations shall be conducted by a qualified groundwater expert meeting the requirements of LMC 17.10.050, Definitions, and approved by the City Engineer and shall typically include at least the following, listed below. Applicants are encouraged to use existing studies and resources within the same locality to the fullest extent possible such as; U. S. Soil Conservation Service Data and USGS data, when available, and select to qualified experts with localized knowledge of the Longview area.
- 1. Preparation by a Qualified Expert. The hydrogeologic testing and site evaluation shall be conducted and a written report prepared by a qualified groundwater expert meeting the requirements in LMC 17.10.050, Definitions.
  - 2. Hydrogeologic Site Evaluation. Hydrogeologic site evaluations shall include, at a minimum, the following:
    - a. Recommendations on appropriate mitigation, if any, to assure that there shall be no significant degradation of groundwater quality or quantity.
    - b. In addition, the testing and evaluation shall include, but not be limited to, an analysis of:
      - i. Geologic setting and soils information of site and surrounding area;
      - ii. Water quality data, including PH, temperature, conductivity, nitrates, and bacteria;
      - iii. Location and depth to perched water tables;
      - iv. Recharge potential of facility site (permeability/transmissivity);
      - v. Local groundwater flow, direction, and gradient;
      - vi. Surface water locations within 1,000 feet of the site;
      - vii. Data currently available on wells and springs within 1,300 feet of the project area; and

viii. Proposed Best Management Practices.

**Section 2.** If any section, subsection, sentence, clause, phrase, words or word of this ordinance is for any reason found to be unconstitutional or otherwise invalid, such unconstitutionality or invalidity shall not affect the constitutionality or validity of the remaining portions of this chapter, it being expressly declared that each section, subsection, sentence, clause, phrase, words or word would have been prepared, proposed, adopted, approved and ratified irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, words, or word be declared or otherwise found unconstitutional or invalid for any reason.

**Section 3.** This Ordinance shall be in full force and effect from and after 30 days of its passage and publication as provided by law.

B. Passed by the City Council this \_\_\_\_ day of \_\_\_\_\_, 2017.

C. Approved by the Mayor this \_\_\_\_ day of \_\_\_\_\_, 2017.

i. MAYOR

ATTEST:

C. City Clerk

APPROVED AS TO FORM:

D. City Attorney

Published: