

APPENDIX A

CITY OF LONGVIEW SHORELINE CRITICAL AREAS REGULATIONS

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I. REGULATION OF CRITICAL AREAS

A. Applicability

1. For the purposes of the Shoreline Master Program, “Shoreline Critical Areas,” include regulated wetlands, shorelands, critical freshwater habitats, frequently flooded areas, fish and wildlife habitat conservation areas, and geologic hazard areas located within shoreline jurisdiction.
2. All proposed development activities in regulated critical areas and associated buffers located within shoreline jurisdiction shall comply with the requirements of the Shoreline Master Program (SMP) which includes critical area regulations.
3. For critical areas and their buffers located outside of or not abutting shoreline jurisdiction, see Longview Municipal Code (LMC) Chapter 17.10, “Critical Areas Ordinance,” effective 2009.
4. Expansion or alteration of existing uses in proximity to critical areas and associated buffers within shoreline jurisdiction shall also comply with the requirements of these regulations.
5. Any person seeking to determine whether a proposed development activity or land area is subject to these regulations may request a determination from the Director of the Department of Community and Economic Development.
6. Shoreline jurisdiction shall not be extended to include critical area buffers that extend beyond the usual Shoreline Management Act (SMA) jurisdiction, as provided for in Revised Code of Washington (RCW) 36.70A.480(6). Critical area buffers that extend beyond the usual SMA jurisdiction will be regulated by the Longview Municipal Code (LMC) Chapter 17.10, “Critical Areas Ordinance,” effective 2009.

B. Development Permit Required

Prior to any alteration of a property containing critical areas within shoreline jurisdiction, the property owner or designee must obtain a shoreline development permit, consistent with the requirements of the SMP, unless the activity is specifically exempt as listed in Section I (C) below.

1. No separate critical areas permit is required for a development proposal that requires a shoreline development permit. The Critical Areas Permit requirements shall be incorporated into a Shoreline Substantial Development Permit, Shoreline Conditional Use Permit, Shoreline Variance, or Shoreline Exemption Certificate as applicable, and the applicable shoreline permit or exemption shall be obtained prior to undertaking any development activity regulated by the SMP.
2. Development activities shall include, but are not limited to, the following:

- a. Removing, clearing, grading, excavating, disturbing, or dredging soil, sand, gravel, minerals, organic matter, or materials of any kind.
- b. Dumping, discharging, or filling with any material.
- c. Any development or use that requires approvals under existing or subsequently adopted development codes of the City of Longview.
- d. Any project that requires a permit under the building code in effect at the time of application, except those projects exempted under Section I (C) below.
- e. New construction or any expansion of a new public or private road or driveway.
- f. 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.
- g. Draining, filling, flooding, or disturbing the water level, water table, or wetland area.
- h. Activities causing direct or indirect adverse changes in water temperature, or physical or chemical characteristics of wetland water and/or its sources, including water quantity and quality as stated in Chapter 90.03 RCW and Chapter 173-201A Washington Administrative Code (WAC), to wetlands or surface water systems.
- i. Any other activities affecting a wetland or wetland buffer not otherwise exempt from the provisions of this chapter.
- j. 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 these regulations.

C. Activities Exempt from Shoreline Substantial Development Permit Requirements

- 1. A Substantial Development Permit is not required for projects that meet the conditions established in WAC 173-27-040, “Developments Exempt from Substantial Development Permit Requirement.” The Director shall issue a letter of exemption consistent with WAC 173.27.050 for proposals that meet the conditions in WAC 173-27-040.
- 2. Critical areas exemptions must meet the exemption criteria listed in WAC 173-27-040.

II. WETLANDS

A. Wetland Designations

Wetlands are those areas, designated in accordance with the approved federal wetland delineation manual and applicable regional supplement, that are inundated or saturated by surface or ground water 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.

B. Wetland Classification

Wetlands shall be rated according to the Washington State Department of Ecology wetland rating system found in the *Washington State Wetland Rating System for Western Washington—2014 Update*, (Ecology Publication #14-06-029, October 2014), or as revised. The rating system document contains the definitions and methods for determining whether the criteria below are met:

1. Wetland Rating Categories.
 - a. Category I. Category I wetlands are:
 - i. Wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR;
 - ii. Mature and old growth forested wetlands larger than one (1) acre;
 - iii. Wetlands that perform many functions well, as characterized by a wetland score of twenty-three (23) or greater on the rating form.
 - b. 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.
 - c. Category II. Category II wetlands are wetlands with a moderately high level of functions, as characterized by a wetland score between twenty (20) and twenty-two (22) on the rating form. Category II wetlands are difficult, though not impossible, to replace and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but they still need a relatively high level of protection.
 - d. Category III. Category III wetlands are wetlands with a moderate level of functions, as characterized by a score of sixteen (16) through nineteen (19) on the rating form. Generally, wetlands in this category have often been disturbed in some way and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
 - e. Category IV. Category IV wetlands have the lowest levels of functions and are often heavily disturbed. They are characterized by a score of less than sixteen (16) on the rating form. These are wetlands that should be replaceable, and in some cases may be improved. 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. *Exempted wetlands*

1. Land disturbance, including fill, in wetlands or their associated buffers cumulatively less than five (5) cubic yards in volume and three hundred (300) square feet in area; provided, that the wetland hydroperiod is not significantly affected.
2. Artificial. Wetlands intentionally created from non-wetland sites including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, stormwater facilities, farm ponds, and landscape amenities; provided, that wetlands created as mitigation shall not be exempted;
3. Wetlands larger than four thousand 4,000 square feet shall be evaluated using standard procedures for wetland review identified in Subsection K below.

D. *Development Limitations: Alterations of Wetlands*

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 shall not be allowed unless project mitigation sequencing has been followed and shall be fully mitigated. Project mitigation sequencing should follow the standard of first avoiding (the preferred protection), or minimizing and mitigating impacts to wetland and wetland buffers.

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.
 - b. Trails constructed with pervious surfaces and wildlife viewing structures provided that the trails and structures minimize the impact and are constructed so that they do not interfere with wetland hydrology.
4. In Category II Wetlands, the following activities may be allowed:
 - a. Activities allowed in Category I wetlands.
 - b. Enhancement and restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
 - c. Activities that are mitigated in accordance with an approved wetland delineation report prepared according to the performance standards described in LMC 17.12.10 and an approved mitigation plan prepared according to the performance standards described in LMC 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.
 - b. Enhancement and restoration activities aimed at protecting the soil, water, vegetation or wildlife.
 - c. Activities that are mitigated in accordance with an approved wetland

delineation report prepared according to the performance standards described in LMC 17.12.10 and an approved mitigation plan prepared according to the performance standards described in LMC 17.12.020.

E. *Wetland Buffers*

Wetlands buffers shall be determined by the responsible official, in accordance with the standards below.

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

Table II.E.1. Wetland Buffers Required to Protect Water Quality Functions			
Wetland Rating	Low-Intensity Use	Moderate-Intensity Use	High-Intensity Use
Category I	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.

Table II.E.2. Wetland Buffers Required to Protect Habitat Functions in Category I and II Wetlands			
Habitat Score in the Rating Form	Low-Intensity Use	Moderate-Intensity Use	High-Intensity Use
3-5 points	50 ft.	75 ft.	100 ft.
6-7 points	75 ft.	110 ft.	150 ft.
8-9 points	150 ft.	225 ft.	300 ft.

Table II.E.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
3-5 points	40 ft.	60 ft.	80 ft.
6-7 points	75 ft.	110 ft.	150 ft.

Table II.E.4. Land-Use-Intensity Matrix¹			
	Low	Moderate	High
Parks and Recreation	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
Streets and Roads	N/A	Residential driveways and accessroads	Public and private streets, security fencing, retainingwalls
Stormwater Facilities	Outfalls, spreaders, constructed wetlands, bioswales, vegetated detention basins, overflows	Wet ponds	Maintenance access roads, retaining walls, vaults, infiltration basins, sedimentation forebays and structures, security fencing
Utilities	N/A	Maintenance access roads	Paved or concrete surfaces, structures, facilities, pump stations, towers, vaults, security fencing
Commercial/Industrial	Underground and overhead utility lines, manholes, power poles without footings	N/A	All site development
Residential	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

¹The Director shall determine the intensity categories applicable to proposals should characteristics not be specifically listed in Table II.E.4.

2. Buffer widths shall be measured outward perpendicular from the delineated boundaries of the regulated wetland for the required distance.
3. 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, significant impervious surfaces such as roads and driveways, buildings, and maintained flood-control levees.
4. As a condition of any permit or authorization issued pursuant to this Chapter, the Director will require the applicant to install permanent signs and/or permanent fencing along the outer boundary of the wetland buffer area. The permanent signs and/or permanent fencing must 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 two hundred (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." This requirement may be waived if deemed warranted by the Director.

F. *Wetland Buffer Width Averaging*

Wetland buffer widths may be modified by averaging buffer widths as set forth herein.

1. Buffer width averaging shall be allowed only where 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.
2. The total area contained within the buffer after averaging shall be no less than that contained within the standard buffer prior to averaging and shall not be less than 75% of the minimum buffer width.

G. *Wetland Buffer Width*

1. The buffer width may be reduced by up to 25 percent if an applicant undertakes measures approved by the Department to enhance the buffer, including, but not limited to, planting of non-invasive native trees or shrubs, increasing the diversity of native plant cover types, or replacement of non-invasive exotic species with native species, in accordance with the mitigation standards referenced in Subsection J below and LMC 17.12.020. A planting plan shall be required, and shall be prepared by a qualified ecologist, biologist, or prepared by a registered landscape architect and reviewed and certified by a qualified ecologist or biologist certifying that the plantings will complement, enhance, and support the functions of the adjacent wetland.

H. *Minimum Buffer Width Reduction*

1. In the case of buffer averaging and buffer reduction per Subsection F and G above, the minimum buffer width at its narrowest point shall not be less than the low-intensity land use water quality buffer widths contained in Table II.E.1 for wetland with a habitat score of 3-5 points. Buffer width reduction shall not be used in combination with buffer width averaging on the same wetland resource on a property or site. Where multiple wetland 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.

I. *Activities Allowed in a Wetland Buffer Zone*

1. The following are activities allowed within the Wetland Buffer Zone. Such activities or projects shall be consistent with the wetland development limitations and mitigation standards set forth for a buffered wetland.
 - a. Pedestrian trails are allowed in the buffer, provided that they are limited to five (5) feet wide or less, are located in the outer 25 percent of the buffer, are constructed with a surface that does not interfere with wetland hydrology, and impacts are mitigated. Trails should be designed to avoid removal of significant trees.
 - b. Stormwater Management Facilities. Stormwater management facilities are allowed only in buffers of wetlands with low habitat function (fewer than six (6) points on the habitat section of the Western Washington wetland rating form), provided the facilities are built on the outer 25 percent of the buffer, do not degrade the existing buffer function, and are designed to blend with the natural landscape. Stormwater management facilities are limited to detention facilities, constructed wetlands, stormwater dispersion outfalls, and bioswales. Stormwater management facilities are prohibited within forested wetland buffer areas.
 - c. Road and Utility Crossings. Crossing buffers with new roads and utilities is allowed, provided that buffer functions are replaced, and impacts to the buffer and wetland are minimized.
 - d. 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 three (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.

- v. The site is restored to a condition existing prior to the activity.
2. Prior to development or alteration within the Wetland Buffer Zone, the applicant shall demonstrate the following:
 - a. Avoidance of all impacts by restructuring the project.
 - b. Minimization or reduction of net impact to buffer while maintaining at least 50 percent of the buffer width on regulated wetlands.
 - c. Mitigation for all buffer alterations on regulated wetlands.

J. Mitigation Standards

1. All adverse impacts to all regulated wetlands and buffers as identified in the wetlands assessment shall be specified in a mitigation plan consistent with LMC 17.12.020, be prepared by a qualified expert, and be consistent with the standards contained in LMC 17.10.110.
2. When an applicant proposes to alter or eliminate a regulated wetland, he/she shall be required to replace or enhance the function and value of the wetland. When replacement of a wetland is proposed, the wetland shall be replaced at the ratio designated in Table II.J.1.

Table II.J.1. Standard Wetland Mitigation Ratios					
Category and Type of Wetland Impacts	Reestablishment or Creation	Rehabilitation Only	Reestablishment or Creation (R/C) plus Rehabilitation (RH)	Reestablishment or Creation (R/C) plus Enhancement (E)	Enhancement Only
Category I Natural Heritage Site	Not considered possible	6:1 rehabilitation of a natural heritage site	N/A	N/A	Case-by-case
Category I forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1

3. The mitigation ratios provided in Table II.J.1 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 compensatory mitigation strategy in some cases. Recommended preservation ratios can be found in Section 6.5.5 of the Department of Ecology's Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance, Publication #06-06-011a, or as revised by Ecology, but final actual ratios may be subject to review by the Department of Ecology and/or the Department.

- a. Increased Mitigation Ratio. The Department or designee may increase the ratios under the following circumstances:
 - i. Uncertainty exists as to the probable success of the proposed restoration or creation; or
 - ii. A significant period of time will elapse between impact and replication of wetland functions; or
 - iii. Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or
 - iv. The impact was an unauthorized impact.
- b. Decreased Mitigation Ratio. The Department may decrease the ratios under the following circumstances:
 - i. Documentation by a qualified wetland specialist demonstrates that the proposed mitigation actions have a very high likelihood of success;
 - ii. Documentation by a qualified ecologist or wetland specialist demonstrates that the proposed mitigation actions will provide functions and values that are significantly greater than the wetland being impacted; or
 - iii. The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful.

4. Wetland Mitigation Banks.

- a. Credits from a wetland mitigation bank may be approved for use as mitigation for unavoidable impacts to wetlands when:
 - i. The bank is certified under Chapter 173-700 WAC; and
 - ii. The Department determines that the wetland mitigation bank provides appropriate mitigation for the authorized impacts; and
 - iii. The proposed use of credits is consistent with the terms and conditions of the bank's certification.

- b. Mitigation ratios for projects using bank credits shall be consistent with mitigation ratios specified in the bank's certification.
 - c. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, bank service areas may include portions of more than one adjacent drainage basin for specific wetland functions.
5. Mitigation bonding at 125 percent of the project cost may be required at the discretion of the Director to ensure that the design and construction of compensatory mitigation project is adequate.
6. All shoreline uses and development within wetlands shall meet no net loss of ecological function by using the following mitigation sequence of steps, listed in order of priority, with (a) being top priority;
- 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 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;
 - e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
 - f. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

K. Wetland Delineation

For the purposes of this chapter, wetland delineation shall be performed in accordance with the procedures as specified in the 1987 U.S. Corps of Engineers approved federal wetland delineation manual and applicable regional supplement.

III. CRITICAL FRESHWATER HABITATS

A. Designation of Critical Freshwater Habitats

Critical freshwater habitats include those portions of streams, rivers, wetlands, lakes, and their associated channel migration zones and floodplains that provide habitat for priority species at any stage in their life cycles, and provide critical ecosystem-wide processes, as established in WAC 173-26-221(2)(c)(iv). Within the City of Longview, the Columbia River and Cowlitz River shoreline reaches contain critical freshwater habitats.

B. Development Performance Standards

Regulated development, as described in Section I (B), shall conform and be governed by the following items in this subsection:

1. New development within stream channel, channel migration zone, wetlands, floodplain, and hyporheic zone shall not cause a net loss of ecological functions as required by WAC 173-26-221(2)(c)(iv)(C)(I) and WAC 173-26-221(2)(c)(iv)(B)(II).
2. For streams and rivers over 20 cubic feet per second (cfs) mean annual flow (Columbia River and Cowlitz Rivers) the riparian habitat conservation buffers shall apply, as listed in Section V, Table 4 of the SMP.
3. All planned and unintended impacts to critical areas shall be fully mitigated, with the goal being to maintain full habitat functions and values. An applicant shall replace any lost functions by enhancement of other functions, so long as the applicant demonstrates that enhancement of the other functions provides no net loss in overall functions and maintains habitat connectivity. To the maximum extent feasible, enhancement shall be undertaken onsite.
4. Appropriate restoration projects shall be authorized and facilitated within the critical freshwater habitats within shoreline jurisdiction (WAC 173-26-221(2)(c)(iv)(C)(IV)).

IV. FISH AND WILDLIFE HABITAT CONSERVATION AREAS

A. Designation of Critical Fish and Wildlife Habitat Conservation Areas

Critical fish and wildlife habitat conservation areas are designated according to the classifications in Table IV.A.1.

Table IV.A.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 and 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 State Department of Fish and Wildlife.
(3) Species and Habitats of local importance and high-quality ecosystems.	<p>Habitat: Unique habitats of local importance which regionally rare plant or wildlife species depend upon and that have high plant or wildlife concentrations, including</p> <ol style="list-style-type: none"> 1. oak woodlands, 2. riparian habitat <p>Species: Wildlife species which 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 critical habitat needs are those documented, verified, and mapped in the City of Longview.</p> <p>High-Quality Ecosystems: High-quality ecosystems are those that are identified by the Washington State Department of Natural Resources through the Natural Heritage Program.</p>

(4) Naturally occurring ponds under twenty (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 twenty (20) acres but greater than one 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 Performance Standards

Regulated development, as described in Section I (B), shall conform and be governed by the following items in this subsection, and in subsections C through G, below:

1. Performance standards contained in this section shall be used to develop plans 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 with 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. Preserve and introduce native plant species which serve as food, shelter from climatic extremes and predators, and structure and cover for reproduction and rearing of young for critical wildlife.

10. Preserve the existing hydraulic functions of drainage systems.
11. Preserve critical fish and wildlife habitat conservation areas through maintenance of stable channels and adequate low flows, and management of stormwater runoff, erosion, and sedimentation to the furthest extent possible.
12. Manage access to critical fish and wildlife habitat conservation areas to protect species that 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 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.
13. 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 two hundred (200) feet or as otherwise determined by the Director, and must 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."
14. Maintain or enhance water quality through control of runoff and use of best management practices and the City of Longview Stormwater Management Ordinance (LMC 17.80).
15. 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.
16. All planned and unintended impacts to critical areas shall be fully mitigated, with the goal being to maintain full habitat functions and values. An applicant shall replace any lost functions by enhancement of other functions, so long as the applicant demonstrates that enhancement of the other functions provides no net loss in overall functions and maintains habitat connectivity. To the maximum extent feasible, enhancement shall be undertaken onsite.

C Overlap of Critical Areas

Section II - Wetlands, 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 Management Plan for Classifications 1 and 2

A Habitat Management Plan may be required to be prepared in accordance with the standards contained in LMC 17.12.020 if the regulated activity is within shoreline jurisdiction and 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.

1. Habitat Management Plan Requirements.
 - a. A Habitat Management Plan will be prepared by a qualified expert, in accordance with the standards contained in LMC 17.12.030.
 - b. Habitat Management Plans must be sent to the Washington State Department of Fish and Wildlife and other appropriate state and federal agencies for comment with the SEPA checklist and peer review for a 14-day comment period. If a response is not received from the appropriate agency within the 14-day review period, the City will assume there are no comments on the project or activity forthcoming from that agency. Copies of comments received by other agencies will be forwarded to the City of Longview, Community Development Department.

E. Habitat Protection for Classification 3

Protection for these habitat areas shall be through the development of performance standards listed in Subsection B above as developed by a qualified expert.

F. Habitat Protection for Classifications 4 and 5

Protection for these habitat areas shall be through the SMA, 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.

G. Riparian Zones

Riparian zones and/or development setback areas shall be required for all regulated activities adjacent to streams, lakes and ponds. All riparian habitat conservation buffers /development setbacks shall be measured from the OHWM, and shall require the appropriate buffer widths shown on Table IV.G.1, and are based on water type definitions, which for the mapped water bodies within City of Longview shoreline jurisdiction are Type S (Shorelines of the State). Water types are defined and mapped based on WAC 222-16-030 (Forest Practices Rules).

Table IV.G.1. Standard Riparian Buffer Widths¹	
	<u>Buffer Width</u>
<u>Reaches 1 and 2 – Columbia River</u>	<u>200 feet</u>
<u>Reaches 3 and 4 – Cowlitz River</u>	<u>200 feet</u>
<u>Reach 5 – Lake Sacajawea</u>	<u>200 feet</u>

¹ See Table 4 Shoreline Development Standards in Shoreline Management Plan for specific development setbacks

1. Internal Riparian Zone Averaging. Subject to review under the standards contained in this Chapter, portions of the riparian zone may be reduced up to fifty percent from the normal standards of this Chapter if riparian zone widths are correspondingly increased elsewhere within the applicant parcel, such that the overall size, function and values of the riparian zone are maintained. In no event shall the width of the riparian zone be less than twenty-five (25) feet. Buffer width averaging shall not be used in combination with buffer width reduction.
2. Buffer Width Reduction. Buffer width may be reduced by up to 50 percent if an applicant undertakes measures approved by the Department to enhance the buffer including, but 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 in accordance with the mitigation standards referenced in LMC 17.10.120. A planting plan shall be required, and shall be prepared by a qualified ecologist, biologist, or prepared by a registered landscape architect and reviewed by a qualified ecologist or biologist certifying that the plantings will compliment, enhance, and support the functions of the fish and wildlife habitat conservation area.
3. Buffer Width Increase. In some instances, wider riparian area widths may be necessary to protect sensitive wildlife species, such as bald eagle nests, heron rookeries, etc., that depend on streams and wetlands or to protect surface waters from slope failures and soil erosion. These standards will be applied on a case-by-case basis based 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 and Wildlife's *Management Recommendations for Washington's Priority Habitats – Riparian* (1997) to design appropriate buffer widths.
4. When impervious surfaces from previous development or flood-control structures, such as levees, completely functionally isolate the riparian buffer from the waterbody, the regulated riparian area shall extend from the OHWM to the impervious surfaces, or toe of flood-control structure. If the waterbody is not completely physically isolated but is completely functionally isolated, the Department may adjust the regulated riparian area to reflect site conditions and best available science.

V. FREQUENTLY FLOODED AREAS

A. 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 20, 2001, or as revised. These maps are hereby adopted by reference and declared to be part of this ordinance.

B. Designation

Areas of the City of Longview meeting the classification criteria for frequently flooded areas are hereby designated as such under RCW 36.70A.170.

C. Development Limitations

All development shall comply with the LMC 17.24, Flood Damage Prevention Ordinance, or as revised.

VI. GEOLOGIC HAZARD AREAS

This section acknowledges the application of other relevant codes and regulations, which may require mutual compliance.

A. Geotechnical Assessments

For all regulated activities proposed within designated landslide, erosion, or mine hazard areas, a geotechnical assessment or an erosion hazard assessment, as appropriate, shall be prepared by a geotechnical engineer in accordance with the standards contained in LMC 17.12.030 and/or 17.12.040, and shall be submitted with the development permit application and coordinated with the international building code requirements.

If the assessment indicates a landslide potential or potentially unstable soil on the site, a geotechnical assessment will be required per the standards contained in LMC 17.12.030. The minimum requirements for preparing the erosion-hazard and geotechnical assessments are included in the standards contained in LMC 17.12.030. If hydro-geologic testing and site evaluation is required, it shall be performed according to the standards contained in LMC 17.12.050.

B. 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 ten (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.

C Classification: Erosion Hazard Areas

Erosion-hazard areas are areas identified by the presence of soils, that are recognized as having high erosion potential in the 1988 Natural Resources 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 2006 Wegmann Report should also be considered to be in a high erosion hazard area.

D. 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. General:
 - a. New development or the creation of new lots that would cause foreseeable risk from geologic conditions to people or improvements during the life of the development, or developments that would require structural shoreline stabilization over the life of the development are prohibited. Exceptions may be made for the limited instances where stabilization is necessary to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result (WAC 173-26-221 (2)(c)(ii)(B)).
 - b. Where no alternatives, including relocation or reconstruction of existing structures, are found to be feasible and less expensive than the proposed stabilization measure, stabilization structures or measures to protect existing primary residential structures may be allowed in strict conformance with WAC 173-26-231 requirements and then only if no net loss of ecological functions will result (WAC 173-26-221 (2)(c)(ii)(D)).
2. 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 a geo-technical report.

d. Minimize ground disturbance to the maximum extent feasible.

3. Erosion Control will conform to standards outlined in LMC 17.80, Stormwater Management:

a. There shall be minimum disturbance of trees and vegetation in order to reduce erosion and maintain existing stability of hazard areas.

b. Vegetation removal on the slopes of banks between the OHWM 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 is preferred over tree removal as a means to provide a view corridor.

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 at any given time. Uncovered areas should not be cleared until previous phases are completed.

4. 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 utilizing buried pipe, are strongly discouraged unless a geotechnical assessment indicates such a system will not affect slope stability, and the percolation systems are designed by a licensed civil engineer. The licensed civil engineer shall also certify that the percolation systems are installed as designed.

5. Sewage Disposal System Drainfields:

For the purpose of landslide or erosion control, sewage disposal drain fields shall be located outside of the hazard area buffer, unless otherwise justified by a qualified geo-technical engineer. The septic system drain field must be in compliance with all local government health regulations.

6. Buffers:

- a. The minimum buffer shall be equal to the height of the slope or fifty (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 geologic hazard area. The buffer may be less than fifty (50) feet if recommended in a geotechnical report by a qualified geotechnical engineer and approved pursuant to Section III B (1) of the Shoreline Master Program.
- b. The buffer shall be clearly marked before and during any construction or clearing activities.

7. 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.

E. 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 should be considered in a “Seismic Hazard Area.”

F. Development Standards: Seismic Hazard Areas

All development within areas that meet the classification for seismic hazard areas shall comply with the currently adopted International Building Code. A shoreline permit is not required by this chapter for seismic hazards. An assessment of the risk of liquefaction potential and whether it should be mitigated by design is best defined by a qualified Civil Engineer with expertise in geotechnical seismic force resisting.

G. 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 that may be reasonably delineated.

H. Development Standards: Mine Hazard Areas

Development adjacent to a mine hazard area is prohibited unless the applicant can demonstrate the development will be safe. If a proposal is located adjacent to a mine hazard area, a geo-technical assessment may be required. At this time, the Washington Department of Natural Resources has no record of any mine hazard areas in or immediately adjacent to the city of Longview.

I. 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.

J. Development Standards: Volcanic Hazard Areas

Development shall comply with existing FEMA regulations for floodplain management. A shoreline permit is not required by this ordinance for development within a volcanic hazard area.

K. Designations

Lands in the City meeting the classification criteria for geologic hazard areas are hereby designated, under RCW 36.70A, as Geologic Hazard Areas.