

6. Critical Aquifer Recharge Areas.

Critical aquifer recharge areas are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). Aquifer recharge areas have geologic conditions associated with infiltration rates that create a high potential for contamination of groundwater resources or contribute significantly to the replenishment of groundwater.

These regulations establish areas determined to be critical in maintaining both groundwater quantity and quality. The purpose of these regulations is to protect aquifer recharge areas from degradation or depletion resulting from new land use activities. Due to the exceptional susceptibility and/or vulnerability of groundwater underlying aquifer recharge areas to contamination and the importance of such groundwater as a source for public water supply, it is the intent of these regulations to safeguard groundwater resources by mitigating or precluding future discharges of contaminants from new land use activities.

- A. Permitted Activities. The following activities are permitted within an aquifer recharge area where no critical area report is required:
1. Construction of, or improvements to, single-family residences or other structures not greater than two thousand five hundred square feet or five percent impervious surface of the site, whichever is greater, that do not use or increase the use of hazardous materials;
 2. Parks, recreation facilities, where no more than five percent of the site is impervious surface and, that do not use or increase the use of hazardous materials; and
 3. On-site septic systems and drain fields for residential uses.

6.2 Critical Area Report—Additional Requirements for Aquifer Recharge Areas.

In addition to the general critical report requirements of Section 4.1 of this Appendix B, proposed developments within critical aquifer recharge areas must also meet the following:

- A. Prepared by Qualified Professional. A critical area report for an aquifer recharge area shall be prepared by a qualified professional who is licensed by the state as a hydrologist, geologist, or engineer and who has experience in preparing hydrologic assessments.
- B. Assessment Required—Hydrologic. All proposed activities, except those permitted activities above, shall have a level one hydrological assessment prepared. A level two hydrologic assessment shall be required for the following activities:

1. Activities that result in five percent or more impervious surface area;
 2. Any activity that diverts, alters, or reduces the flow of surface or groundwater or reduces aquifer recharge;
 3. The use of hazardous substances other than household chemicals used in accordance with the package directions for domestic applications;
 4. Injection wells, except domestic septic systems; and
 5. Any activity determined by the Director that may likely have an adverse effect on aquifer recharge or groundwater quality.
- C. Level One Hydrologic Assessment. A level one hydrologic assessment shall include all of the following:
1. Geologic and hydrologic characteristics for the site and immediately surrounding areas, if applicable, and any surface aquifer recharge areas;
 2. Groundwater depth and flow direction and quantity;
 3. Data on springs or wells within one thousand feet of the site;
 4. Location of other critical areas within one thousand feet of the site;
 5. Water quality data; and
 6. Proposed best management practices for the project.
- D. Level Two Hydrologic Assessment. In addition to the requirements of a level one hydrologic assessment, a level two hydrologic assessment shall also include all of the following:
1. Historic water quality data for the affected area for the past five years;
 2. Provisions for a groundwater monitoring plan;
 3. Effects the proposed project may have on groundwater quantity and quality, including:
 - a. Evaluation of groundwater withdrawal effects on nearby wells or surface water;
 - b. Evaluation of groundwater contamination from potential releases; and

4. A spill plan identifying structures or equipment that may fail and result in an impact. A spill plan shall include provisions for regular inspections, repair, and replacement of structures or equipment.

6.3 Performance Standards—General.

- A. Activities shall only be allowed in an aquifer recharge area if the applicant can demonstrate that the proposed activity will not cause contaminants to enter the groundwater or adversely affect aquifer recharge.
- B. Proposed activities must comply with requirements of the EPA, Washington Department of Health, Department of Ecology, and Cowlitz County Health and Human Services.

6.4 Performance Standards for Specific Uses.

- A. Storage Tanks. All storage tanks proposed to be located in an aquifer recharge area shall comply with the adopted building code requirements, applicable zoning, fire life safety requirements, and the following:
 1. Underground Tanks. All new underground storage tanks that will contain hazardous substances shall be designed and constructed to:
 - a. Prevent releases due to corrosion or structural fail for the life of the tank; and
 - b. Protect against corrosion or constructed of corrosion-resistant materials, or designed to prevent the release of any stored substance.
 2. Aboveground Tanks. All new aboveground storage tanks that will contain hazardous substances shall be designed and constructed to:
 - a. Not allow the release of hazardous substances to the ground or ground or surface waters;
 - b. Contain spills using a primary containment area enclosing or underlying the tank; and
 - c. Contain spills using a secondary containment system either built into the tank structure or by a dike system constructed outside the tank.
- B. Vehicle Repair and Servicing.
 1. Vehicle service and repair shall be conducted over an impervious surface and within a covered structure capable of withstanding normal weather conditions. Chemicals used in vehicle repair and servicing shall be stored in a manner that is protected from the weather and provides containment from leaks or spills.

2. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on a site proposed for vehicle repair shall be abandoned using methods approved by the Department of Ecology.

- C. Reclaimed Water—Spreading or Injection. Reclaimed water projects must be in accordance with Department of Ecology requirements and approval.

6.5 Prohibited Uses.

- A. The following activities are prohibited in an aquifer recharge area:
 1. Landfills;
 2. Underground Injection wells;
 3. Mining;
 4. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces;
 5. Storage or processing of radioactive materials; and
 6. Any activity that significantly reduces aquifer recharge, aquifer flow, or aquifer quantity or quality.

7. Frequently Flooded Areas.

- A. Frequently Flooded Area Classifications and Designations. All lands identified in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), as amended, and approved by the City, as within the one-hundred-year floodplain are designated as frequently flooded areas. These maps are based on the following:
1. Flood Insurance Study—Cowlitz County Unincorporated Areas;
 2. Flood Insurance Study—City of Woodland.
- B. Development Limitations. All development within designated frequently flooded areas shall be in compliance with the City of Woodland floodplain management ordinance, Chapter 14.40 of Woodland Municipal Code, (1996), with the exception that development subject to Section 14.40.050(C) must also be demonstrated to:
1. Not cause further limitation of channel migration; and
 2. Include appropriate protection of ecological functions.

8. Geologically Hazardous Areas.

- A. Designation of Geologically Hazardous Areas. Geologically hazardous areas pose a threat to the health and safety of the general public when incompatible development is sited in areas of significant hazard. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake or other geological events. Development within a geologically hazardous area may not only pose a threat to that particular development, but to areas surrounding the development.

8.2 Erosion and Landslide Hazard Areas.

A. General.

1. Erosion hazard areas are those areas that, because of their natural characteristics, including vegetative cover, soil texture, slope, gradient, and rainfall patterns, or human-induced changes to such characteristics, are vulnerable to erosion.
2. Landslide hazard areas are areas potentially subject to the risk of mass movement due to geologic, topographic, and/or hydrologic factors.

B. Classification.

1. Criteria.

- a. Erosion hazard areas are identified by the presence of vegetative cover, soil texture, slope, and rainfall patterns, or human-induced changes to such characteristics, which create site conditions, which are vulnerable to erosion. Erosion hazard areas are those areas that are classified as having moderate to severe, or very severe erosion potential by the Natural Resources Conservation Service, United States Department of Agriculture (USDA).

- b. Landslide hazard areas are those areas meeting any of the following characteristics:

i. Areas of historic failures, such as:

- (A) Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having "severe" limitation for building site development;
- (B) Those areas mapped by the Department of Ecology or the Washington Department of Natural Resources as unstable, unstable old slides, or unstable recent slides;

(C) Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Washington Department of Natural Resources.

ii. Areas with all three of the following characteristics:

(A) Slopes steeper than fifteen percent;

(B) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

(C) Springs or groundwater seepage.

iii. Slopes that are parallel or sub-parallel to planes of weakness, such as bedding planes, joint systems, and fault planes, in subsurface materials;

iv. Slopes having gradients steeper than eighty percent subject to rock fall during seismic shaking;

v. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action; or

vi. Any area with a slope of thirty percent or steeper and with a vertical relief of ten or more feet. A slope is delineated by estimating the toe and top and measured by averaging the inclination over at least ten feet of vertical relief.

8.3 Mapping of Hazards.

The following sources may be used to identify landslide and erosion hazard areas:

- A. Soil Survey of Cowlitz Area, Washington, United States Department of Agriculture, February 1974;
- B. Areas designated as slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Washington Department of Natural Resources;
- C. Washington Department of Natural Resources seismic hazard maps for Western Washington;
- D. Federal Emergency Management Administration flood insurance maps;
- E. Other maps or records of local geological hazard events.

8.4 Allowed Activities.

The Director may allow the following activities within geologically hazardous areas if the activity will not increase the risk of the hazard and it is demonstrated that structural stabilization to the shoreline will not be needed now or in the foreseeable future:

- A. Construction of new buildings with less than two thousand five hundred (2,500) square feet of floor area or roof area, whichever is greater;
- B. Additions to existing residences that are two hundred fifty (250) square feet or less; and
- C. Installation of fences.

8.5 Regulation.

For all regulated activities proposed within landslide and erosion hazard areas, a geotechnical report prepared by a professional engineer licensed by the state of Washington with expertise in geotechnical engineering shall be submitted. Where the applicant can clearly demonstrate to the department through submittal of a geotechnical assessment that the regulated activity or any related site alterations will not occur within the landslide or erosion hazard area or any associated buffers, the requirements for a geotechnical report may be waived. A geotechnical assessment may be prepared by a professional engineer licensed by the state of Washington with expertise in geotechnical engineering. A geotechnical assessment may also be prepared by a professional geologist/hydrologist or soils scientist who has earned a bachelor's degree in geology, hydrology, soils science, or closely related field from an accredited college or university or equivalent educational training, and having five years' experience assessing erosion and landslide hazards.

- A. Geotechnical Assessments.
 - 1. If an applicant questions the presence of landslide or erosion hazard areas on a site, the applicant may submit a geotechnical assessment.
 - 2. A geotechnical assessment shall include all of the following:
 - a. A description of the topography, surface and subsurface hydrology, soils, geology, and vegetation of the site;
 - b. An evaluation of the analysis area's inherent landslide and erosion hazards and any other critical areas and buffers, and any critical areas that may be likely to impact the site;
 - c. A site plan of the area delineating all areas of the site subject to landslide and erosion hazards, based on sources and criteria above; and

- d. The submittal must include a contour map of the proposed site, at a scale of one inch equals twenty feet or as deemed appropriate by the department. Slopes shall be clearly delineated for the ranges between fifteen percent and twenty-nine percent, and thirty percent or greater, including figures for area coverage of each slope category on the site. When site-specific conditions indicate the necessity, the department may require the topographic data to be field surveyed. When possible, the footprint of the proposed project shall be shown.
- B. Geotechnical Reports. A geotechnical report shall be prepared by a professional engineer licensed by the state of Washington with experience in geotechnical engineering and shall address the existing geology, topographic and hydrologic conditions of the site, including an evaluation of the ability of the site to accommodate the proposed activity. The geotechnical report shall include at a minimum the following:
1. Site geology information required:
 - a. Topographic Data. The submittal must include a contour map of the proposed site, at a scale of one inch equals twenty feet or as deemed appropriate by the department. Slopes shall be clearly delineated for the ranges between fifteen percent and twenty- nine percent, and thirty percent or greater, including figures for area coverage of each slope category on the site. When site-specific conditions indicate the necessity, the department may require the topographic data to be field surveyed. When possible, the footprint of the proposed project shall be shown;
 - b. Subsurface Data. The submittal must include boring logs and exploration methods; soil and rock stratigraphy, groundwater levels, and seasonal changes of groundwater levels;
 - c. Site History. The submittal must include a description of any prior grading, soil instability, or slope failure; and
 - d. Seismic Hazard. The submittal shall include data concerning the vulnerability of the site to seismic events.
 2. Geotechnical engineering information required:
 - a. Slope stability studies and opinion(s) of slope stability;
 - b. Proposed angles of cut and fill slopes and site grading requirements;
 - c. Structural foundation requirements and estimated foundation settlements;
 - d. Soil compaction criteria;

- e. Proposed surface and subsurface drainage;
 - f. Lateral earth pressures;
 - g. Vulnerability of the site to erosion;
 - h. Suitability of on-site soil for use as fill;
 - i. Laboratory data and soil index properties for soil samples; and
 - j. Building limitations.
3. Where a valid geotechnical report has been prepared within the last five years for a specific site, and where the proposed land use activity and surrounding site conditions are unchanged, said report may be utilized and a new report may not be required. If any changed environmental conditions are associated with the site or surrounding the site, or the proposed activity has changed, the applicant shall submit an amendment to the geotechnical report.
4. The development proposal may be approved, approved with conditions, or denied based on the department's evaluation of the ability of the proposed mitigation measures to reduce risks associated with the erosion and landslide hazard area.
5. Other critical areas or buffers on or adjacent to the site that may impact the proposal.
- C. Standards. The department shall evaluate all geotechnical reports for landslide and erosion hazard areas to insure that the following standards are met:
- 1. Location and extent of development:
 - a. The development shall be located to minimize disturbance and removal of vegetation;
 - b. Structures shall be clustered where possible to reduce disturbance and maintain natural topographic character; and
 - c. Structures shall conform to the natural contours of the slope, and foundations should be tiered where possible to conform to the existing topography of the site.
 - 2. Design of development:
 - a. All development proposals shall be designed to minimize the building footprint and other disturbed areas;

- b. All development shall be designed to minimize impervious surfaces;
 - c. Roads, walkways, and parking areas shall be designed to parallel the natural contours; and
 - d. Access shall be in the least sensitive area of the site.
3. The Department may approve, approve with conditions, or deny development proposals based on these performance standards.

D. Buffer Requirements.

1. A buffer consisting of undisturbed natural vegetation and measured in a perpendicular direction from all landslide and erosion hazard areas shall be required. The buffer shall be from the top of the slope and toe of the slope of all landslide or erosion hazard areas that measure ten feet or more in vertical elevation change from top to toe of slope, as identified in the geotechnical report, maps, and field checking. The minimum buffer distance requirements from the top of slope and toe of slope of the landslide or erosion hazard areas shall be the same as for setbacks from slopes as identified in the Uniform Building Code.
 2. To increase the functional attributes of the buffer, the Director may require that the buffer be enhanced through the planting of indigenous species.
 3. The edge of the buffer area shall be clearly staked, flagged, and fenced prior to any clearing, grading or construction. The buffer markers shall be clearly visible, durable, and permanently affixed to the ground. Site clearing shall not commence until the engineer has submitted written notice to the Director that the buffer requirements of this Program have been met. The buffer shall be permanently protected through a protective easement or other appropriate permanent protective measure.
- E. Modification to Buffer Width. When a geotechnical report demonstrates that a lesser buffer distance may be achieved through design and engineering solutions, such reduced buffer and design and engineering solutions may be permitted. If a geotechnical report demonstrates that a greater buffer distance is needed, the greater buffer shall be required.
- F. Building Setback and Construction Near Buffer. The setback for any proposed building or impervious surface from a buffer area shall be the same setback as required for that zoning district or ten feet, whichever is greater. No building or impervious surface shall be constructed closer than ten feet to any buffer area. Clearing, grading, and filling within the required setback shall only be allowed if the applicant can demonstrate that vegetation within the buffer will not be damaged.

G. Erosion Control Plan. Erosion control plans shall be required for all regulated activities in erosion hazard areas.

9. Designation of Fish and Wildlife Habitat Conservation Areas.

A. Fish and wildlife habitat conservation areas include:

1. Areas with species designated by the state or federal government as endangered, threatened or sensitive:
 - a. Federally designated endangered and threatened species are identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are threatened to become endangered or are in danger of extinction. U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listings.
 - b. State-designated endangered, threatened, and sensitive species are those species native to the state of Washington that are in danger of extinction, threatened to become endangered, vulnerable, or are declining and are likely to become endangered or threatened without cooperative management. The Washington Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.
2. State priority habitats and areas associated with state priority species. Priority species require protection due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitat may consist of a specific structural element, successional state, unique vegetation, or dominant plant species. Priority habitats are identified by the Washington Department of Fish and Wildlife.
3. Habitats and Species of Local Importance. Habitats and species of local importance shall include Washington Department of Fish and Wildlife priority habitats and species, candidate species, and any species identified by the City of Woodland or Clark or Cowlitz County.
4. Naturally Occurring Ponds Under Twenty Acres. Naturally occurring ponds do not include ponds intentionally created from dry sites such as retention ponds, dikes, or wastewater treatment facilities, or landscape amenities, unless such ponds were intentionally created as mitigation or as restoration.
5. Waters of the State. All watercourses under the jurisdiction of the state of Washington.
6. Lakes, ponds, streams and rivers stocked or planted with game fish by a governmental or tribal entity.

7. State natural areas and natural resource conservation areas as defined, established, and managed by the Washington Department of Natural Resources.
 8. Essential land for preserving open spaces and connections between habitat blocks.
- B. All areas within the City of Woodland meeting one or more of these criteria listed above, are hereby considered critical areas and are subject to this Program.
- C. Mapping. The following critical area maps are hereby adopted:
1. Washington Department of Fish and Wildlife, priority habitat and species maps;
 2. Washington Department of Natural Resources, official water type reference maps; and
 3. Washington Department of Natural Resources, state natural area preserves and natural resource conservation area maps.

These maps are to be considered as references only and do not provide final critical area designation.

9.2 Critical Area Report—Additional Requirements for Habitat Conservation Areas.

In addition to the general critical area report requirements of Section 4.1 of this Appendix B, critical area reports for habitat conservation areas shall meet the requirements of this Section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

- A. Prepared by Qualified Professional. A critical report for a habitat conservation area shall be prepared by a qualified professional biologist with experience preparing reports for the appropriate type of habitat.
- B. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for habitat conservation areas:
 1. The total area of the proposed activity;
 2. All habitat conservation areas and recommended buffers within two hundred feet of the project area; and
 3. All shoreline areas, floodplains and other critical areas with related buffers within two hundred feet of the project area.

C. **Habitat Assessment.** A habitat assessment or investigation of the proposed project area that evaluates the presence of a potential fish or wildlife species or habitat shall be prepared. A habitat conservation area report shall contain an assessment of the following site and proposal related information:

1. Detailed description of vegetation and other habitat features on and adjacent to the proposed project area;
2. Identification of any species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association habitat on or adjacent to the proposed project area;
3. An assessment of potential impacts to the species by the proposed project;
4. A discussion of any federal, state, or local special management recommendation that have been developed for species or habitats on or adjacent to the proposed project;
5. A detailed discussion of the potential impacts to the habitat by the proposed project, including impacts to water quality or quantity;
6. A discussion of measures, including avoidance, minimization and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded in accordance with Section 4.4 (Mitigation sequencing) of this Appendix B; and
7. A discussion of continuing management practices that will protect habitat after the project site has been developed, including monitoring and maintenance programs.

D. **Additional Information Required.** The Director may require additional information when the type of habitat or species dictates the need. The habitat management additional requirement shall include:

1. An evaluation by an independent qualified professional regarding the analysis and effectiveness of proposed mitigation or programs, including any recommendations as appropriate;
2. A request for consultation with the Washington Department of Fish and Wildlife; and
3. A detailed surface and subsurface hydrologic features both on and adjacent to the proposed project site.

9.3 Performance Standards—General Requirements.

- A. Alterations Shall Not Degrade the Functions and Values of Habitat. A habitat conservation area may only be altered if the proposed alteration of the habitat does not degrade the quality or quantity of functions or values of the habitat. All new structures are prohibited from habitat conservation areas except in accordance with this Program.
- B. Nonindigenous Species Shall Not Be Introduced. Unless authorized by a state or federal permit of approval, no species not indigenous to the region shall be introduced into a habitat conservation area, or its buffer.
- C. Mitigation, Contiguous Corridors. Mitigation sites shall be located so as to achieve continuous habitat corridors in accordance with an approved mitigation plan.
- D. Approvals May Be Conditioned. The Director may condition approvals of allowed activities within or adjacent to habitat conservation areas or buffers. Conditions may include, but are not limited to, the following:
 - 1. Establishment of buffer zones;
 - 2. Preservation of critically important vegetation;
 - 3. Limiting access, including fencing;
 - 4. Seasonal restriction of construction activities; and
 - 5. Mitigation to compensate for lost habitat
- E. Mitigation Shall Achieve Equivalent or Greater Functions. Mitigation activities shall achieve equivalent or greater biologic functions and shall include mitigation for adverse impacts upstream or downstream of the development site. Mitigation shall address each function.
- F. Approval shall be supported by the most current, accurate, and complete scientific and technical information available.
- G. Buffers.
 - 1. The Director shall require buffer areas to be established for all activities in or adjacent to habitat conservation areas when needed for habitat protection. Buffers shall be undisturbed areas of native vegetation, or shall be areas identified for restoration, to protect the integrity, functions, and values of the affected habitat. Buffers shall reflect the sensitivity of the habitat and intensity of the proposed project, and shall be consistent with recommendations by the Washington Department of Fish and Wildlife. Buffers shall be preserved in perpetuity.

2. **Seasonal Restrictions.** If a species is more prone to disturbance during specific times of the year, seasonal restrictions may apply. Larger buffers may be required, and activities may be restricted during that specific season.
3. **Habitat Buffer Averaging.** The Director may allow the recommended buffer width to be reduced in accordance with an approved critical area report; the most current, accurate, and complete scientific and technical information available; and management recommendations by the Washington Department of Fish and Wildlife. Averaging may only occur if:
 - a. Averaging will not reduce habitat or stream functions;
 - b. It will not adversely affect salmonid habitat;
 - c. Additional natural resource protection such as buffer enhancement will be provided;
 - d. The total of the averaged buffer area is not less than what would be contained in the standard buffer; and
 - e. The buffer area width is not reduced by more than twenty-five percent.

H. Signs and Fencing.

1. **Temporary Markers.** The outer perimeter of the habitat conservation area or buffer and the limits of the area to be disturbed shall be marked in such a way as to prevent unauthorized intrusion. The marking shall be verified by the Director prior to any activities taking place. Temporary marking shall be maintained throughout the project timeline until permanent signs, if required, are in place.
2. **Permanent Signs.** The Director may require permanent signs along the boundary of a habitat conservation area or buffer. The signs, if required, must be made of a durable material, mounted on a metal post. Signs shall be posted approximately fifty feet apart. The property owner shall maintain the signs.
3. **Fencing.**
 - a. The Director may require permanent fencing of a habitat conservation area or buffer when fencing will prevent future impacts to the area.
 - b. Permanent fencing shall be required if domestic grazing animals are present or may be introduced in the future.
 - c. If permanent fencing is required, it shall be the sole responsibility of the applicant to install and maintain.
 - d. Fencing shall not interfere with species migration and shall be installed in a manner that minimizes habitat impacts.

I. Subdivisions/Short Subdivisions.

1. Land that is located entirely within a habitat conservation area or its buffer shall not be subdivided. Buffer areas shall be identified on the face of subdivision maps and shall be protected in perpetuity with conservation covenants, deed restrictions, or other legally binding mechanisms.
2. Land that is located partially within a habitat conservation area or buffer may be divided provided an accessible portion of each new lot is located outside the conservation area or buffer and each established new lot can be reasonably developed without intrusion into the standard habitat buffer. A lot may be subdivided into lots outside the conservation area or buffer and a lot entirely within the buffer area, so long as the lot within the conservation area or buffer area is designated as not developable on the final plat.
3. Roads and utilities serving the proposed subdivision may only be permitted in the conservation area or buffer if the City determines that no other feasible alternative exists and adverse impacts to critical areas and buffers are fully mitigated in accordance with all mitigation and critical area report requirements of this Program.

9.4 Performance Standards—Specific Habitats.

A. Endangered, Threatened and Sensitive Species.

1. No development shall be allowed within a habitat conservation area or buffer where state or federally endangered, threatened, or sensitive species have a primary association.
2. Proposed activities adjacent to a conservation area where state or federally endangered, threatened, or sensitive species have a primary association shall be protected in accordance with an approved critical area report. No activity shall be permitted prior to consultation with the Washington Department of Fish and Wildlife and/or appropriate federal agency.
3. Bald eagle habitat shall be protected pursuant to Washington State Bald Eagle Protection Rules (WAC 232-12-292). For activities proposed adjacent to a verified nest or communal roost a habitat management plan shall be developed by a qualified professional. Activities are adjacent to a bald eagle site when they are within eight hundred feet or within two thousand six hundred forty feet and in a shoreline foraging area. The City shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the habitat management plan by the Washington Department of Fish and Wildlife.

B. Anadromous Fish.

1. All activities, uses, and alterations proposed to be located within waterbodies used by anadromous fish or in areas that affect such waterbodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to the following:
 - a. Activities shall be timed in accordance with the allowable work window as specified by the Washington Department of Fish and Wildlife for the applicable species;
 - b. The activity is designed so it will not degrade the functions or values of the fish habitat or other critical areas;
 - c. Any impacts to the functions or values are mitigated in accordance with an approved critical area report; and
 - d. Hydraulic project approval may be required from the Washington Department of Fish and Wildlife.

- C. Wetland Habitats. All proposed activities within or adjacent to habitat conservation areas containing wetlands shall conform to the wetland portion of this Appendix B. If wetland and non-wetland critical areas are present at the same location, the provisions that afford the greatest protection shall apply.

- D. Riparian Habitat Areas. Unless otherwise allowed in this Program, all structures and activities shall be located outside of the RHA.
 1. Establishment of Riparian Habitat Areas. Riparian areas shall be established for habitats that include aquatic and terrestrial ecosystems that mutually benefit each other, and are located adjacent to rivers, perennial or intermittent streams, and springs.
 2. Riparian Habitat Area Widths. A riparian habitat shall have the width specified unless a greater width is required, or a lesser width is allowed. Widths shall be measured on a horizontal plane from the OHWM or from the top of the bank if the ordinary high water mark cannot be identified. Riparian habitat area widths shall be as shown in the following tables:

Table B-3. Riparian Habitat Areas (RHA) for Non-Shoreline Waters

Stream Type	RHA Width
Type S - shorelines of the state	See Table B-4
Type F - other perennial or fish bearing streams	200 feet
• 5-20 feet wide	150 feet
• <5 feet wide	100 feet
Type Np - perennial nonfish habitat streams	75 feet
Type Ns - seasonal, nonfish habitat streams	75 feet

Table B-4. Reach-Based Riparian Habitat Areas (RHA) for Shoreline Waters

Reach Number	Waterbody	Shoreline Environment Designation	RHA Width
W-01	Horseshoe Lake	Residential	Where shoreline is adjacent to the road, the RHA extends from the OHWM to the boundary of the existing roadside operational area. Existing single-family lots – 25 feet Undeveloped parcels – 65 feet
W-02	Horseshoe Lake	Residential	50 feet
W-03	Horseshoe Lake	High Intensity	25 feet
W-04	Horseshoe Lake	Recreation	0 feet (see table note)
W-05	Horseshoe Lake	High Intensity	RHA extends from the OHWM to the boundary of the existing roadside operational area.
W-06	Horseshoe Lake	Residential	25 feet
W-07	Lewis River	High Intensity	150 feet; Maintain riparian vegetation consistent with guidelines for airport safety zones.
W-08	Lewis River	High Intensity	75 feet except where existing parcels are less than 200 feet deep. For parcels less than 200 feet deep, buffer is 30 percent of the parcel depth.
W-09	Lewis River	<i>Parallel:</i> Urban Conservancy between Flood Wall footprint and OHWM / High Intensity / Residential	RHA extends from the OHWM to the waterward footprint of the Flood Wall or the waterward existing roadside operational area, where no Flood Wall is present.
W-10	Lewis River	<i>Parallel:</i> Urban Conservancy between Floodway Boundary and OHWM / High Intensity / Residential	RHA extends from the OHWM to 10 feet landward of the FEMA Floodway, or 75 feet, whichever is greater.
W-11	Lewis River	Residential	100 feet, except where existing or approved platted lots are less than 200 feet deep. For parcels less than 200 feet deep, buffer is 30 percent of the parcel depth.

Table Note: See Table 7-1 in the SMP for building setbacks that apply in addition to the RHA buffer widths in this table.

3. Increased Riparian Widths. Riparian habitat widths shall be increased when:
 - a. The Director determines that the recommended width is insufficient to prevent habitat degradation and to protect the functions of the habitat area;
 - b. A channel migration zone exceeds the recommended riparian width. The width shall be extended to the outer edge of the channel migration zone;
 - c. The riparian area is in an area of high blowdown potential. The RHA shall be expanded an additional fifty feet (50) on the windward side; or

- d. The riparian area is within an erosion or landslide area. The buffer width will be that of the critical area affording the greatest protection.
4. Reduction of Habitat Buffer Widths. The Director may allow the standard or reach-based habitat buffer width to be reduced in accordance with an approved critical area report and the most current, accurate, and complete scientific and technical information available on a case-by-case basis when it is determined that a smaller area is adequate to protect the habitat functions and values based on site-specific characteristics and when all of the following criteria are met:
 - a. The critical area report provides a sound rationale for a reduced buffer based on the most current, accurate, and complete scientific and technical information available;
 - b. The existing buffer area is well-vegetated or will be significantly enhanced with native species and has less than a ten percent slope;
 - c. No direct or indirect, short-term or long-term, adverse impacts to habitats will result from the proposed activity;
 - d. As required by the Director, a five-year monitoring program of the buffer and habitat shall be included. Subsequent corrective actions may be required if adverse impacts to the habitats are discovered during the monitoring period; and
 - e. In no case shall the standard buffer width be reduced by more than twenty-five (25) percent using this provision.
 5. Riparian Habitat Area Width Averaging. The Director may allow the standard or reach-based riparian habitat area width to be averaged in accordance with a critical area report only if:
 - a. The reduction will not degrade the habitat;
 - b. The reduction will not reduce the stream or habitat functions;
 - c. The reduction will not reduce non-fish habitat functions;
 - d. Additional habitat protection will be provided;
 - e. The total area of the riparian area is not reduced by more than twenty-five (25) percent in any one location;
 - f. The total area of the riparian area is not decreased;
 - g. The reduction in width will not be within another critical area or buffer; and

- h. The reduction in habitat area is supported by the most current, accurate, and complete scientific and technical information available.
6. Allowed Uses. The following uses are allowed in RHAs and building setbacks in all environment designations consistent with Table 7-1 of the SMP, provided that mitigation sequencing is demonstrated and any adverse impacts to ecological functions are mitigated.
- a. Water-dependent uses. Water-dependent uses, modifications and activities may be located in shoreline buffers at the water's edge without obtaining a Shoreline Variance Permit, provided the project submittal includes a critical area report, mitigates for impacts according to Section 6.1 of the SMP, and the project otherwise complies with this Program.
- b. Accessories to water-dependent uses. Uses, developments and activities accessory to water-dependent uses should be located outside any applicable standard, reach-based or reduced shoreline buffer unless at least one of the following is met:
- i. Proximity to the water-dependent project elements is critical to the successful implementation of the facility's purpose and the elements are supportive of the water-dependent use and have no other utility (e.g., a road to a boat launch facility); or
- ii. The applicant's lot/site has topographical constraints where no other location of the development is feasible (e.g., the water-dependent use or activity is located on a parcel entirely or substantially encumbered by the required buffer).

In these circumstances, uses and modifications accessory to water-dependent uses must be designed and located to minimize intrusion into the buffer. All other accessory uses, developments and activities proposed to be located in a shoreline buffer must obtain a Shoreline Variance unless otherwise allowed by other regulations in this Section or in this Program.

- c. Linear transportation and utility crossings. New linear transportation and utility crossings may be located in shoreline buffers without obtaining a Shoreline Variance, provided the project complies with all other provisions of this Program.
- d. Shoreline residential access. A private access pathway constructed of pervious materials may be installed, a maximum of four (4) feet wide, through the shoreline buffer to the OHWM. Impervious materials may be used only as needed to comply with ADA requirements to construct a safe, tiered pathway down a slope. A railing may be installed on one edge of the pathway, a maximum of 36 inches tall and of open construction. Pathways to

the shoreline should take the most direct route feasible consistent with any applicable ADA standards.

7. **Riparian Habitat Mitigation.** Mitigation of adverse impacts shall result in equivalent functions and values on a per function basis. The mitigation shall be located as near the alteration as possible, and be located in the same sub-drainage basin as the impacted habitat.
8. **Alternative Mitigation for Riparian Areas.** If the applicant demonstrates that greater habitat functions can be obtained as a result of alternate mitigation measures, the Director may modify the requirements of the performance standards of this Section, including the RHA buffers.
9. **Functionally Isolated Riparian Habitat Area.** Areas which are functionally separated from a riparian habitat area due to preexisting roads, structures, or similar circumstances, shall be excluded from buffers otherwise required by this Program on a case-by-case basis subject to a critical area report and review as determined by the Director.

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