

City of Aberdeen

Critical Areas Ordinance

Draft: October 3, 2008

**Prepared by:
HDR, Inc.
626 Columbia Street NW, Suite 2A
Olympia, WA 98501**



Chapter 14.100 CRITICAL AREA PROTECTION

14.100.010 Purpose.....	1
14.100.011 Authority	2
14.100.012 Applicability	2
14.100.013 Definitions.....	3
14.100.014 Severability	21
14.100.020 Jurisdiction – Critical Areas.....	21
14.100.021 Critical Area Maps.....	22
14.100.022 Best Available Science	23
14.100.030 Administrative Procedures.....	24
14.100.031 Fees	24
14.100.032 Administrative Rules	25
14.100.034 Permit Processing.....	25
14.100.035 Appeals	28
14.100.040 Interpretation.....	28
14.100.041 Relationship to Other Regulations.....	28
14.100.042 Multiple Designations.....	28
14.100.050 Exempt and Allowed Activities	28
14.100.051 Reasonable Use.....	33
14.100.052 Nonconforming Development	34
14.100.053 Variances.....	34
14.100.060 Critical Area Reports – General Requirements	35
14.100.061 Critical Area Reports – Modifications to Requirements.....	36
14.100.070 Mitigation Requirements	37
14.100.071 Mitigation Sequencing.....	38
14.100.072 Mitigation Plan Requirements	39
14.100.074 Bonds to Ensure Mitigation, Maintenance and Monitoring.....	40
14.100.080 Notice on Title	41
14.100.081 Critical Area Tracts.....	41
14.100.083 Building Setbacks	42
14.100.084 Temporary Marking, Permanent Signs and Fencing	42
14.100.090 Critical Area Inspections.....	43
14.100.091 Unauthorized Critical Area Alterations and Enforcement.....	43
14.100.100 Critical Aquifer Recharge Areas - Designation	45
14.100.200 Wetlands Critical Areas - Designation	46
14.100.210 Mapping of Wetland Areas.....	46
14.100.220 Critical Area Report – Additional Requirements for Wetland Areas	47
14.100.230 Allowed Activities in Wetland Areas	50
14.100.240 Performance Standards – General Requirements	50
14.100.241 Performance Standards – Specific Activities.....	51
14.100.242 Performance Standards - Subdivisions	53
14.100.250 Wetland Buffers - Dimensions.....	53
14.100.251 Performance Standards – Wetland Buffer Averaging	56

14.100.252 Performance Standards – Wetland Buffer Increase	57
14.100.253 Performance Standards – Wetland Buffer Decrease.....	58
14.100.254 Performance Standards – Buffer Management Plan.....	58
14.100.260 Performance Standards – Mitigation Requirements	59
14.100.261 Performance Standards - Wetland Mitigation Plan	61
14.100.262 Performance Standards - Wetland Mitigation Monitoring	62
14.100.263 Wetland Mitigation Banks	63
14.100.300 Frequently Flooded Areas - Designation	65
14.100.310 Mapping of Frequently Flooded Areas	65
14.100.320 Frequently Flooded Areas - Regulation.....	65
14.100.400 Geologically Hazardous Areas - Designation.....	66
14.100.410 Mapping of Geologically Hazardous Areas.....	67
14.100.420 Activities Allowed in Geologically Hazardous Areas	68
14.100.430 Critical Area Report – Additional Requirements for Geologically Hazardous Areas.....	68
14.100.440 Critical Area Report – Additional Requirements for Specific Hazards.....	70
14.100.450 Performance Standards – General Requirements	73
14.100.460 Performance Standards – Specific Hazards	74
14.100.500 Fish and Wildlife Habitat Conservation Areas - Designation	77
14.100.510 Fish and Wildlife Habitat Conservation Areas - Mapping	80
14.100.520 Critical Area Report – Additional Requirements for Conservation Habitat Areas ...	80
14.100.530 Fish and Wildlife Habitat Conservation Areas—Water bodies—Performance Standards – Specific Activities	82
14.100.540 Performance Standards – General Requirements	86
14.100.541 Performance Standards – Subdivisions.....	88
14.100.542 Performance Standards – Specific Habitats.....	88
14.100.550 Fish and Wildlife Habitat Conservation Areas – Water Bodies - Buffers	90
14.100.551 Fish and Wildlife Habitat Conservation Areas—Water Bodies—Buffer Averaging	91
14.100.552.....Fish and Wildlife Habitat Conservation Areas - Water Bodies - Buffer Increase	92
14.100.553..... Fish and Wildlife Habitat Conservation Areas - Water Bodies - Buffer Decrease	92
14.100.554.....Fish and Wildlife Habitat Conservation Areas - Other Fish and Wildlife Habitat Conservation Areas - Buffers.....	93
14.100.560 Fish and Wildlife Habitat Conservation Areas - Mitigation Standards	93
14.100.570 Fish and Wildlife Habitat Conservation Areas - Piped Streams.....	94

14.100.010 Purpose

- A. The purpose of this Chapter is to designate and classify ecologically sensitive and hazardous areas and to protect these areas and their functions and values, while also allowing for reasonable use of private property.
- B. This Chapter is to implement the goals, policies, guidelines, and requirements of the city of Aberdeen (city) Comprehensive Plan and the Growth Management Act.
- C. The city finds that critical areas provide a variety of valuable and beneficial biological and physical functions that benefit the city and its residents, and/or may pose a threat to human safety or to public and private property. The beneficial functions and values provided by critical areas include, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation of flood waters, ground water recharge and discharge, erosion control, wave attenuation, protection from hazards, historical, archaeological, and aesthetic value protection, and recreation. These beneficial functions are not listed in order of priority.
- D. Goals. By limiting development and alteration of critical areas, this Chapter seeks to:
 - 1. Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, or flooding;
 - 2. Maintain healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve the biodiversity of plant and animal species;
 - 3. Direct activities not dependent on critical areas resources to less ecologically sensitive sites and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas; and
 - 4. Prevent cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, and habitat conservation areas.
- E. The regulations of this Chapter are intended to protect critical areas in accordance with the Growth Management Act and through the application of the best available science, as determined according to WAC 365-195-900 through 365-195-925, and in consultation with state and federal agencies and other qualified professionals.
- F. This Chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this Chapter to make a parcel of property unusable by denying its owner reasonable economic use of the property or to prevent the provision of public facilities and services necessary to support existing and planned development.
- G. The city's enactment or enforcement of this Chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.

14.100.011 Authority

- A. As provided herein, the Community Development Director is given the authority to interpret and apply, and the responsibility to enforce this Chapter to accomplish the stated purpose.
- B. The city may withhold, condition, or deny development permits or activity approvals to ensure that the proposed action is consistent with this Chapter.

14.100.012 Applicability

- A. The provisions of this Chapter shall apply to all lands, all land uses and development activity, and all structures and facilities in the city, whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the city. No person, company, agency, or applicant shall alter a critical area or buffer except as consistent with the purposes and requirements of this Chapter.
- B. The city shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement in, over, or on a critical area or associated buffer, without first ensuring compliance with the requirements of this Chapter including but not limited to the following:
 - 1. Binding Site Plan
 - 2. Boundary line adjustment;
 - 3. Building permit
 - 4. Conditional use permit;
 - 5. Grading and fill permit
 - 6. Planned unit development
 - 7. Shoreline conditional use permit;
 - 8. Shoreline substantial development permit;
 - 9. Shoreline exemption;
 - 10. Shoreline variance;
 - 11. Short subdivision (Short Plat);
 - 12. Subdivision;
 - 13. Zoning conditional use;
 - 14. Zoning variance; or
 - 15. Any other adopted permit or required approval not expressly exempted by this Chapter.
- C. Approval or denial of a permit or development proposal pursuant to the provisions of this Chapter does not discharge the obligation of the applicant to comply with the provisions of this Chapter.

14.100.013 Definitions

Words not defined in this Chapter shall be as defined in the city of Aberdeen Municipal Code, the Washington Administrative Code, or the Revised Code of Washington. Words not found in either code shall be as defined in the Webster's Third New International Dictionary, latest edition.

Active fault – A fault that is considered likely to undergo renewed movement within a period of concern to humans. Faults are commonly considered to be active if the fault has moved one or more times in the last 10,000 years, but faults may also be considered active in some cases if movement has occurred in the last 500,000 years.

Adaptive management – Adaptive management relies on scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty.

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

- A. On a site immediately adjoining a critical area;
- B. A distance equal to or less than the required critical area buffer width and building setback;
- C. A distance equal to or less than one-half mile (2,640 feet)¹ from a bald eagle nest;
- D. A distance equal to or less than two hundred (300) feet² upland from a stream, wetland, or water body;
- E. Bordering or within the floodway, floodplain or channel migration zone; or

Advance mitigation – Mitigation of an anticipated critical area impact or hazard completed according to an approved report or other applicable information and prior to site development.

Agricultural Land – Land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, or livestock, and or that has been designated as long-term commercial significance for agricultural production.

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

¹ Distance of 2,640 feet is based on the Washington Department of Fish and Wildlife's Management Recommendations for Washington's Priority Species, Volume IV: Birds, 2000.

² Distance of 300 feet is based on maximum recommended riparian habitat area width from the Washington Department of Fish and Wildlife's Management Recommendations for Washington's Priority Habitats: Riparian, 1997.

Applicant - A person who files an application for permit under this Chapter and who is either the owner of the land on which that proposed activity would be located, a contract purchaser, or the authorized agent of such a person.

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

Aquifer, confined – An aquifer bounded above and below by beds of distinctly lower permeability than that of the aquifer itself and that contains ground water under sufficient pressure for the water to rise above the top of the aquifer.

Aquifer recharge areas - Areas that, due to the presence of certain soils, geology, and surface water, act to recharge ground water by percolation.

Aquifer, Sole Source – An area designated by the U.S. Environmental Protection Agency under the Safe Drinking Water Act of 1974, Section 1424(e). The aquifer(s) must supply fifty percent or more of the drinking water for an area without a sufficient replacement available.

Aquifer susceptibility – The ease with which contaminants can move from the land surface to the aquifer based solely on the types of surface and subsurface materials in the area. Susceptibility usually defines the rate at which a contaminant will reach an aquifer unimpeded by chemical interactions with the vadose zone media.

Aquifer, unconfined – An aquifer not bounded above by a bed of distinctly lower permeability than that of the aquifer itself and containing ground water under pressure approximately equal to that of the atmosphere. This term is synonymous with the term "water table aquifer."

Area of Shallow Flooding – An area designated AO or AH Zone on the flood insurance map(s). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.

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

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

Best management practices (BMPs) - Conservation practices or systems of practices and management measures that:

- A. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;
- B. Minimize adverse impacts to surface water and ground water flow, circulation patterns, and to the chemical, physical, and biological characteristics of wetlands;

- C. Protect trees and vegetation designated to be retained during and following site construction; and
- D. Provide standards for proper use of chemical herbicides within critical areas.

The city of Aberdeen shall monitor the application of best management practices to ensure that the standards and policies of this Chapter are adhered to.

Biodiversity – The variety of animal and plant life and its ecological processes and interconnections - represented by the richness of ecological systems and the life that depends on them, including human life and economies.

Breakaway Wall – A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Buffer or buffer zone - An area contiguous to and protects a critical habitat that is required for the continued maintenance, functioning, and/or structural stability of a critical area.

Compensation project - Actions necessary to replace project-induced critical area and buffer losses, including land acquisition, planning, construction plans, monitoring and contingency actions.

Compensatory mitigation - Replacing project-induced critical wetland habitat losses or impacts, and includes, but is not limited to, the following:

Restoration: Actions performed to reestablish wetland functional characteristics and processes that have been lost by alterations, activities, or catastrophic events within an area that no longer meets the definition of a wetland.

Creation: Actions performed to intentionally establish a wetland at a site where it did not formerly exist.

Enhancement: Actions performed to improve the condition of existing degraded wetlands so that the functions they provide are of a higher quality.

Preservation: Actions taken to ensure the permanent protection of existing, high-quality wetlands.

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

Critical aquifer recharge area – Areas designated by WAC 365-190-080(2) that are determined to have a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2).

Critical areas - Critical areas include any of the following areas or ecosystems: Aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands, as defined in RCW 36.70A and this Chapter.

Critical area tract – Land held in private ownership and retained in an open condition in perpetuity for the protection of critical areas. Lands within this type of dedication may include but are not limited to, portions and combinations of forest habitats, grasslands, shrub steppe, on-site watersheds, one hundred-year floodplains, shorelines or shorelines of statewide significance, riparian areas, and wetlands.

Critical facility – A facility for which even a slight chance of flooding, inundation, or impact from a hazard event might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire and emergency response installations, and installations that produce, use or store hazardous materials or hazardous waste.

Critical Species – All animal and plant species listed by the state or federal government as threatened or endangered.

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

Developable area - A site or portion of a site that may be utilized as the location of development, in accordance with the rules of this Chapter.

Development - Any activity upon the land consisting of construction or alteration of structures, earth movement, dredging, dumping, grading, filling, mining, removal of any sand, gravel, or minerals, driving of piles, drilling operations, bulk heading, clearing of vegetation, or other land disturbance. Development includes the storage or use of equipment or materials inconsistent with the existing use. Development also includes approvals issued by the city of Aberdeen that binds land to specific patterns of use, including but not limited to, subdivisions, short subdivisions, zone changes, conditional use permits, and binding site plans. Development activity does not include the following activities:

- A. Interior building improvements.
- B. Exterior structure maintenance activities, including painting and roofing.
- C. Routine landscape maintenance of established, ornamental landscaping, such as lawn mowing, pruning and weeding.
- D. Maintenance of the following *existing* facilities that does not expand the affected area: septic tanks (routine cleaning); wells; individual utility service connections; and individual cemetery plots in established and approved cemeteries.

Development permit – Any permit issued by the city of Aberdeen, or other authorized agency, for construction, land use, or the alteration of land.

Director – The director of the city of Aberdeen community development department, or other city staff granted by the Director the authority to act on behalf of the Director.

Eco-connectivity - Eco-connectivity is a physical feature of the land as well as functional one. It is the geo-physical connection between natural habitat areas that allow fish and animals to move between feeding, reproductive, rearing, and resting areas. The functional connection is dependent on the physical connection.

Elevated Building – A building that has no basement and its lowest elevated floor is raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

Emergent Wetland – A wetland with at least thirty percent of the surface area covered by erect, rooted, herbaceous vegetation extending above the water surface as the uppermost vegetative strata.

Erosion – The process whereby wind, rain, water, and other natural agents mobilize and transport particles.

Erosion hazard areas – At least those areas identified by the United State Department of Agriculture National Resources Conservation Service as have a “severe” rill and inter-rill erosion hazard.

Estuary – The zero-gradient sector of a watercourse where it flows into a standing body of water together with associated natural wetlands; tidal flows reverse flow in the wetland twice daily, determining its upstream limit. It is characterized by low bank channels (distributaries) branching off the main stream to form a broad, near-level delta; bank, bed and delta materials are silt and clay, banks are stable, vegetation ranges from marsh to forest, and water is usually brackish due to daily mixing and layering of fresh and salt water.

Exotic - Any species of plants or animals, which are (not listed on the State plant list) foreign to the planning area.

Extreme slope hazard areas – Those areas with pre-development slope greater than thirty percent.

Fish and wildlife habitat conservation areas – Areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5). These areas are guided by the State’s Priority Habitats and Species list and include the following:

- A. Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
- B. Habitats of local importance, including but not limited to areas designated as priority habitat by the Department of Fish and Wildlife;
- C. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds;
- D. Waters of the state, including 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;
- E. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;

- F. State natural area preserves and natural resource conservation areas; and
- G Land essential for preserving connections between habitat blocks and open spaces.

Fish habitat – Habitat that is used by fish at any life stage at any time of the year, including potential habitat likely to be used by fish that could be recovered by restoration or management and includes off-channel habitat.

Flood or flooding - A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

Flood insurance map – The official map on which the Federal Insurance Administration has delineated the areas of special flood hazards and include the risk premium zones applicable to the community. Also known as “flood insurance rate map” or “FIRM.”

Flood insurance study – The official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

Floodplain - The total land area adjoining a river, stream, watercourse or lake subject to inundation by the base flood.

Flood Protection Elevation – The elevation that is one foot above the base flood elevation.

Flood Resistant Material – Materials designed to be resistant to the impacts associated with flooding and defined and described in detail in the Federal Emergency Management Agency’s Technical Bulletin #2-93, 1993 and FEMA publication FEMA-348, *Protecting Building Utilities from Flood Damage*.

Floodway - The channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more that one foot. Also known as the "zero rise floodway."

Forested Wetland – A wetland with at least thirty percent of the surface area covered by woody vegetation greater than twenty feet in height that is at least partially rooted within the wetland.

Formation – An assemblage of earth materials grouped together into a unit that is convenient for description or mapping.

Formation, confining – The relatively impermeable formation immediately overlying a confined aquifer.

Frequently flooded areas – Lands in the floodplain subject to a one percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance and attenuation functions, as determined by the [city official] in accordance with WAC 365-190-080(3). Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property. Classifications of frequently flooded areas include, at a minimum, the one hundred-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

Functions and values – The beneficial roles served by critical areas including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, ground water recharge and discharge, erosion control, wave attenuation, protection from hazards, historical and archaeological and aesthetic value protection, and recreation. These beneficial roles are not listed in order of priority.

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

Ground water - Water in a saturated zone or stratum beneath the surface of land or a surface water body.

Ground Water Management Area – A specific geographic area or subarea designated pursuant to Chapter 173-100 WAC for which a ground water management program is required.

Ground Water Management Program – A comprehensive program designed to protect ground water quality, to ensure ground water quantity, and to provide for efficient management of water resources while recognizing existing ground water rights and meeting future needs consistent with local and state objectives, policies, and authorities within a designated ground water management area or subarea and developed pursuant to Chapter 173-100 WAC.

Growth Management Act - RCW 36.70A, and 36.70B, as amended.

Habitat conservation areas – Areas designated as fish and wildlife habitat conservation areas.

Habitats of Local Importance – These areas include a seasonal range or habitat element with which a given species has a primary association, and which, if altered may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, talus, and wetlands. (WAC 365-190-030)

Hazard areas – Areas designated as frequently flooded areas or geologically hazardous areas due to potential for erosion, landslide, seismic activity, extreme slopes, or other geological condition.

Hazardous substances – Any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC 173-303-090 or 173-303-100.

High intensity land use – Land uses which are associated with high levels of human disturbance or substantial habitat impacts including, but not limited to, commercial uses, industrial uses, and residential uses with five or more units per acre.

High quality wetlands – Those wetlands that meet the following criteria:

- A. No, or isolated, human alteration of the wetland topography;
- B. No human-caused alteration of the hydrology or the wetland appears to have recovered from the alteration;

- C. Low cover and frequency of exotic plant species;
- D. Relatively little human-related disturbance of the native vegetation, or recovery from past disturbance;
- E. If the wetland system is degraded, it still contains a viable and high quality example of a native wetland community; and
- F. No known major water quality problems.

Historic condition – Condition of the land, including flora, fauna, soil, topography, and hydrology that existed before the area and vicinity were developed or altered by human activity.

Hydraulic project approval (HPA) – A permit issued by the state Department of Fish and Wildlife for projects that affect the bed or flow of waters of the state in accordance with Chapter 77.55 RCW and WAC 220.110.

Hydric soil – A soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined following the methods described in the *Washington State Wetland Identification and Delineation Manual*.

Hydrologic soil groups – Soils grouped according to their runoff-producing characteristics under similar storm and cover conditions. Properties that influence runoff potential are depth to seasonally high water table, intake rate and permeability after prolonged wetting, and depth to a low permeable layer. Hydrologic soil groups are normally used in equations that estimate runoff from rainfall, but can be used to estimate a rate of water transmission in soil. There are four hydrologic soil groups:

- A. Low runoff potential and a high rate of infiltration potential;
- B. Moderate infiltration potential and a moderate rate of runoff potential;
- C. Slow infiltration potential and a moderate to high rate of runoff potential; and
- D. High runoff potential and very slow infiltration and water transmission rates.

Hydrophytic vegetation – Macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the *Washington State Wetland Identification and Delineation Manual*.

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

Impervious surface – A hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development or that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater.

In-kind compensation – Same species, habitat type, and function impacted. If the impacted habitat is disturbed, it means replacement with the natural habitat that would occur. It does not mean replacement "in-category."

Isolated wetlands – Those wetlands that are outside of and not contiguous to any one hundred-year floodplain of a lake, river, or stream, and have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water.

Infiltration – The downward entry of water into the immediate surface of soil.

Injection well(s)

- A. **Class I** – A well used to inject industrial, commercial, or municipal waste fluids beneath the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water.
- B. **Class II** – A well used to inject fluids:
 - 1. Brought to the surface in connection with conventional oil or natural gas exploration or production and may be commingled with wastewaters from gas plants that are an integral part of production operations, unless those waters are classified as dangerous wastes at the time of injection;
 - 2. For enhanced recovery of oil or natural gas; or
 - 3. For storage of hydrocarbons that are liquid at standard temperature and pressure.
- C. **Class III** – A well used for extraction of minerals, including but not limited to the injection of fluids for:
 - 1. In-situ production of uranium or other metals that have not been conventionally mined;
 - 2. Mining of sulfur by Frasch process; or
 - 3. Solution mining of salts or potash.
- D. **Class IV** – A well used to inject dangerous or radioactive waste fluids.
- E. **Class V** – All injection wells not included in Classes I, II, III, or IV.

Inter-rill - Inter-rills are areas subject to sheetwash.

Joint Aquatic Resource Permits Application (JARPA) – A single application form that may be used to apply for hydraulic project approvals, shoreline management permits, approvals of exceedance of water quality standards, water quality certifications, coast guard bridge permits, Department of Natural Resources use authorization, and Army Corps of Engineers permits.

Land use, high intensity – See “High intensity land use.”

Land use, low intensity – See “Low intensity land use.”

Land use, moderate intensity – See “Moderate intensity land use.”

Landslide hazard areas – Areas that are potentially subject to risk of mass movement due to a combination of geologic landslide resulting from a combination of geologic, topographic, and hydrologic factors. These areas are typically susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope aspect, geologic structure, ground water, or other factors.

Levee – A levee is a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Long-term commercial significance - Includes the growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of the land. [R.C.W. 36.70A.030(10); WAC 365-190-030(11).

Low intensity land use – Land uses which are associated with low levels of human disturbance or low habitat impacts, including, but not limited to, passive recreation uses, open space uses, and residential uses with four or fewer units per acre.

Lowest Floor – The lowest floor of the lowest enclosed area, including the basement. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, which is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable requirements of this Chapter.

Manufactured Home – A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle.”

Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Minerals – materials including gravel, sand, and valuable metallic substances. [R.C.W. 36.70A.030(11); W.A.C. 365-190-030(12).

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

- A. Avoiding the impact altogether by not taking a certain action or parts of an action;
- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- C. Rectifying the impact to wetlands, critical aquifer recharge areas, and habitat conservation areas by repairing, rehabilitating or restoring the affected environment to the conditions existing at the time of the initiation of the project;
- D. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods;
- E. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- F. Compensating for the impact to wetlands, critical aquifer recharge areas, and habitat or critical areas by replacing, enhancing, or providing substitute resources or environments; and

- G. Monitoring the hazard or other required mitigation and taking remedial action when necessary.

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

Moderate intensity land use – Land uses which are associated with moderate levels of human disturbance or substantial habitat impacts including, but not limited to, low density residential (no more than one home per five acres), active recreation, and moderate agricultural land uses.

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

Native vegetation - Plant species that are indigenous to the area in question. Plants that are not listed in Chapter 16-750 WAC.

Native growth habitat area – An area where native vegetation is preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering and protecting plants and animal habitat;

Natural waters – Waters, excluding water conveyance systems, that are artificially constructed and actively maintained for irrigation, or any waters of the state.

Non-conformity – A legally established existing use or legally constructed structure that is not in compliance with current regulations.

Non-indigenous – See “exotic.”

Off-site mitigation – To replace critical areas away from the site on which a critical area has been impacted.

On-site mitigation – On or adjacent to the project impact site or in the same stream reach, based on resource needs.

Ordinary high water mark (OHM) - OHM on all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department: PROVIDED, That in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water (RCW 90.58.030).

Out-of-kind replacement – To replace critical areas with substitute critical areas whose functions and values do not closely approximate those destroyed or degraded. It does not refer to replacement "out-of-category."

Permeability – The capacity of an aquifer or confining bed to transmit water. It is a property of the aquifer or confining bed and is independent of the force causing movement.

Porous Soil Types – Soils, as identified by the National Resources Conservation Service, U.S. Department of Agriculture, that contain voids, pores, interstices, or other openings which allow the passing of water.

Potable water – Water that is safe and palatable for human use.

Practical alternative – An alternative that is available and capable of being carried out after taking into consideration, cost, existing technology, and logistics in light of overall project purposes, and having fewer impacts to critical areas.

Primary Association Area – The area used on a regular basis by, is in close association with, or is necessary for the proper functioning of the habitat of a critical species. Regular basis means that the habitat area is normally, or usually known to contain a critical species, or based on known habitat requirements of the species, the area is likely to contain the critical species. Regular basis is species and population dependent. Species that exist in low numbers may be present infrequently yet rely on certain habitat types.

Priority habitat - Habitat type or elements with unique or significant value to one or more species as classified by the Department of Fish and Wildlife. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. (WAC 173-26-020(34))

Project area – All areas within fifty feet of the area proposed to be disturbed, altered, or used by the proposed activity or the construction of any proposed structures.

Qualified professional – A person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology or related field, and two years of related work experience.

- A. A qualified professional for habitats or wetlands must have a degree in biology and professional experience related to the subject species.
- B. A qualified professional for a geological hazard must be a professional geologist (preferred) or engineer, licensed in the state of Washington.
- C. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.

Recharge – The process involved in the absorption and addition of water to ground water.

Reclaimed water – Municipal wastewater effluent that has been adequately and reliability treated so that it is suitable for beneficial use. Following treatment it is no longer considered wastewater (treatment levels and water quality requirements are given in the water reclamation and reuse standards adopted by the state Departments of Ecology and Health).

Recreation Vehicle – A vehicle that is:

- A. Built on a single chassis;
- B. Four hundred square feet or less when measured at the largest horizontal projection;
- C. Designed to be self-propelled or permanently towable by a light duty truck; and
- D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory Flood – A level of flooding that a regulatory agency’s design regulations apply to.

Repair or maintenance - An activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.

Restoration – Measures taken to restore an altered or damaged natural feature including:

- A. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and
- B. Actions performed to reestablish structural and functional characteristics of the critical area that have been lost by alteration, past management activities, or catastrophic events.

Rills - Steep-sided channels resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery. Rill erosion tends to occur on slopes, particularly steep slopes with poor vegetative cover.

Riparian habitat – Any area adjacent to surface water which possesses elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends from the OHW to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects, or habitat for riparian-associated wildlife. It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions as well as adjacent upland plant communities that directly influence aquatic ecosystem. Riparian habitat areas include those riparian areas severely altered or damaged due to human development activities.

River – See “Watercourse.”

Scientific process – A valid scientific process is one that produces reliable information useful in understanding the consequences of a decision. The characteristics of a valid scientific process are as follows:

- A. **Peer review.** The information has been critically reviewed by other qualified scientific experts in that scientific discipline.
- B. **Methods.** The methods that were used are standardized in the pertinent scientific discipline or the methods have been appropriately peer-reviewed to assure their reliability and validity.

- C. **Logical conclusions and reasonable inferences.** The conclusions presented are based on reasonable assumptions supported by other studies and are logically and reasonably derived from the assumptions and supported by the data presented.
- D. **Quantitative analysis.** The data have been analyzed using appropriate statistical or quantitative methods.
- E. **Context.** The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.
- F. **References.** The assumptions, techniques, and conclusions are well referenced with citations to pertinent existing information.

Section 404 Permit – A permit issued by the Corps of Engineers for the placement of dredge or fill material or clearing in waters of the U.S., including wetlands, in accordance with 33 USC § 1344.

Seeps - A spot where water oozes from the earth, often forming the source of a small stream.

Seismic hazard areas – Areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

Serviceable - Presently usable.

SEPA – Washington State Environmental Policy Act, Chapter 43.21C RCW.

Shorelines - All of the water areas of the state as defined in RCW 90.58.030, including reservoirs and their associated shorelands, together with the lands underlying them except:

- A. Shorelines of statewide significance;
- B. Shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and
- C. Shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes.

Shorelines of the state - The total of all “shorelines,” as defined in RCW 90.58.030(2)(d), and “shorelines of statewide significance” within the state, as defined in RCW 90.58.030(2)(c).

Shorelines of statewide significance - Those areas defined in RCW 90.58.030(2)(e).

Shorelands or shoreland areas - Those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes and tidal waters which are subject to the provisions of Chapter 90.58 RCW.

Significant portion of its range - That portion of a species range likely to be essential to the long-term survival of the population in Washington.

Soil survey – The most recent soil survey for the local area or county by the National Resources Conservation Service, U.S. Department of Agriculture.

Sole Source Aquifer – See “Aquifer, Sole Source.”

Special Flood Hazard Areas – The land in the floodplain within an area subject to a one percent or greater chance of flooding in any given year. Designations of special flood hazard areas on flood insurance map(s) always include the letters A or V.

Special Protection Areas – Aquifer recharge areas defined by WAC 173-200-090 that require special consideration or increased protection because of unique characteristics, including, but not limited to:

- A. Ground waters that support an ecological system requiring more stringent criteria than drinking water standards;
- B. Ground water recharge areas and wellhead protection areas that are vulnerable to pollution because of hydrogeologic characteristics; and
- C. Sole source aquifer status.

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

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

Species of local importance – Those species of local concern due to their population status or their sensitivity to habitat manipulation, or that are game species.

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

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

Stream – See “watercourse.”

Sub-drainage basin or **subbasin** - The drainage area of the highest order stream containing the subject property impact area. Stream order is the term used to define the position of a stream in the hierarchy of tributaries in the watershed. The smallest streams are the highest order (first order) tributaries. These are the upper watershed streams and have no tributaries of their own. When two first order streams meet, they form a second order stream, and when two second order streams meet they become a third order stream, and so on.

Substantial damage – Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent of the market value of the structure before the damage occurred.

Substantial improvement – Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either: before the improvement or repair is started; or if the structure has been damaged and is being restored, before the damage occurred.

Take – To harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect, or to attempt to engage in any such conduct.

Tsunami – A series of waves produced when a water of body is rapidly displaced, especially as ocean waves generated by submarine earth movement or volcanic eruption.

Unavoidable – Adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

Vulnerability – The combined effect of susceptibility to contamination and the presence of potential contaminants.

Watercourse – Any portion of a channel, bed, bank, or bottom waterward of the ordinary high water line of waters of the state including areas in which fish may spawn, reside, or through which they may pass, and tributary waters with defined beds or banks, which influence the quality of fish habitat downstream. This definition includes watercourses that flow on an intermittent basis or which fluctuate in level during the year and applies to the entire bed of such watercourse whether or not the water is at peak level. This definition does not include irrigation ditches, canals, stormwater run-off devices, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

Water dependent – A use or portion of a use that cannot exist in a location that is not adjacent to the water, but is dependent on the water by reason of the intrinsic nature of its operations. A use that can be carried out only on, in, or adjacent to water. Examples of water dependent uses include ship cargo terminal loading areas; fishing; ferry and passenger terminals; barge loading, ship building, and dry docking facilities; marinas, moorage, and boat launching facilities; aquaculture; float plane operations; surface water intake; and sanitary sewer and storm drain outfalls.

Water resource inventory area (WRIA) – One of sixty-two watersheds in the state of Washington, each composed of the drainage areas of a stream or streams, as established in Chapter 173-500 WAC as it existed on January 1, 1997.

Water table – That surface in an unconfined aquifer at which the pressure is atmospheric. It is defined by the levels at which water stands in wells that penetrate the aquifer just far enough to hold standing water.

Water table aquifer – see “Aquifer, unconfined.”

Water Typing System - Waters classified according to WAC 222-16-030 including the following:

- A. **"Type S Water"** means all waters, within their bankfull width, as inventoried as "shorelines of the state" under chapter 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW including periodically inundated areas of their associated wetlands.
- B. **"Type F Water"** means segments of natural waters other than Type S Waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of one half acre or greater at seasonal low water and which in any case contain fish habitat or are described by one of the following four categories:
1. Waters, which are diverted for domestic use by more than ten residential or camping units or by a public accommodation facility licensed to serve more than ten persons, where such diversion is determined by the department to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type F Water upstream from the point of such diversion for one thousand five hundred feet or until the drainage area is reduced by fifty percent, whichever is less;
 2. Waters, which are diverted for use by federal, state, tribal or private fish hatcheries. Such waters shall be considered Type F Water upstream from the point of diversion for one thousand five hundred feet, including tributaries if highly significant for protection of downstream water quality. The department may allow additional harvest beyond the requirements of Type F Water designation provided the department determines after a landowner-requested on-site assessment by the Department of Fish and Wildlife, Department of Ecology, the affected tribes and interested parties that:
 - a. The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and
 - b. Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery;
 3. Waters, which are within a federal, state, local, or private campground having more than ten camping units: Provided, That the water shall not be considered to enter a campground until it reaches the boundary of the park lands available for public use and comes within one hundred feet of a camping unit, trail or other park improvement;
 4. Riverine ponds, wall-based channels, and other channel features that are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria:
 - a. The site must be connected to a fish habitat stream and accessible during some period of the year; and
 - b. The off-channel water must be accessible to fish.
- C. **"Type Np Water"** means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.
- D. **"Type Ns Water"** means all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np Waters. These are seasonal, nonfish

habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np Water. Ns Waters must be physically connected by an above-ground channel system to Type S, F, or Np Waters.

E. For purposes of this section:

1. "Residential unit" means a home, apartment, residential condominium unit or mobile home, serving as the principal place of residence.
2. "Camping unit" means an area intended and used for:
 - a. Overnight camping or picnicking by the public containing at least a fireplace, picnic table and access to water and sanitary facilities; or
 - b. A permanent home or condominium unit or mobile home not qualifying as a "residential unit" because of part time occupancy.
3. "Public accommodation facility" means a business establishment open to and licensed to serve the public, such as a restaurant, tavern, motel or hotel.
4. "Natural waters" only excludes water conveyance systems which are artificially constructed and actively maintained for irrigation.
5. "Seasonal low flow" and "seasonal low water" mean the conditions of the seven-day, two-year low water situation, as measured or estimated by accepted hydrologic techniques recognized by the department.
6. "Channel width and gradient" means a measurement over a representative section of at least five hundred linear feet with at least ten evenly spaced measurement points along the normal stream channel but excluding unusually wide areas of negligible gradient such as marshy or swampy areas, beaver ponds and impoundments. Channel gradient may be determined utilizing stream profiles plotted from United States geological survey topographic maps (see board manual section 23).
7. "Intermittent streams" means those segments of streams that normally go dry.
8. "Fish habitat" means habitat which is used by any fish at any life stage at any time of the year, including potential habitat likely to be used by fish which could be recovered by restoration or management and includes off-channel habitat.

Well – A bored, drilled or driven shaft, or a dug hole whose depth is greater than the largest surface dimension for the purpose of withdrawing or injecting water or other liquids.

Wellhead protection area (WHPA) – The portion of a zone of contribution for a well, wellfield or spring, as defined using criteria established by the state Department of Ecology.

Wetlands – Those areas 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 adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were

unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands. For identifying and delineating a wetland, local government shall use the Washington State Wetland Identification and Delineation Manual.

Wetland category – Wetlands that are categorized into Category I, II, III or IV based upon the categorization procedures in the Washington State Wetland Rating System for Western Washington (Hruby T. 2004).

Wetland classes, classes of wetlands, or wetland types – The descriptive classes of the wetlands taxonomic classification system of the U.S. Fish and Wildlife Service (Cowardin, et al. 1979).

Wetland edge – The boundary of a wetland as delineated based on the definitions contained in this Chapter.

Wetlands mitigation bank – A site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

Zone of contribution – The area surrounding a well or spring that encompasses all areas or features that supply ground water recharge to the well or spring.

14.100.014 Severability

If any clause, sentence, paragraph, section, or part of this Chapter or the application thereof to any person or circumstances shall be judged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered. The decision shall not affect or invalidate the remainder of any part thereof and to this end the provisions of each clause, sentence, paragraph, section, or part of this law are hereby declared to be severable.

14.100.020 Jurisdiction – Critical Areas

- A. The city shall regulate all uses, activities, and developments within, adjacent to, or likely to affect, one or more critical areas, consistent with the best available science and the provisions herein.
- B. Critical areas regulated by this Chapter include:
 - 1. Critical aquifer recharge areas as designated in Critical Aquifer Recharge Areas [Chapter 14.100.100];
 - 2. Wetlands as designated in Wetlands [Chapter 14.100.200];
 - 3. Frequently flooded areas as designated in Frequently Flooded Areas [Chapter 14.100.300];
 - 4. Geologically hazardous areas as designated in Geologically Hazardous Areas [Chapter 14.100.400]; and

5. Fish and wildlife habitat conservation areas as designated in Fish and Wildlife Habitat Conservation Areas [Chapter 14.100.500].
- C. All areas within the city meeting the definition of one or more critical areas, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this Chapter.
- D. Areas Adjacent to Critical Areas Subject to Regulation. Areas adjacent to critical areas shall be considered to be within the jurisdiction of these requirements and regulations to support the intent of this Chapter and ensure protection of the functions and values of critical areas. Adjacent shall mean any activity located:
1. On a site immediately adjoining a critical area;
 2. A distance equal to or less than the required critical area buffer width and building setback;
 3. A distance equal to or less than one-half mile (2,640 feet) from a bald eagle nest
 4. A distance equal to or less than three hundred (300) feet upland from a stream, wetland, or water body;
 5. Within the floodway, floodplain, or channel migration zone; or

14.100.021 Critical Area Maps

- A. The approximate location and extent of critical areas will be displayed on various inventory maps available at the city Community Development Department. The Director shall have the authority to update these maps or add additional maps as inventories are completed in compliance with the requirements of the Growth Management Act. These maps include:
1. City of Aberdeen Critical Area Map 1: Wetlands;
 2. City of Aberdeen Critical Area Map 2: Frequently Flooded Areas
 3. City of Aberdeen Critical Area Map 3: Critical Aquifer Recharge Areas
 4. City of Aberdeen Critical Area Map 4: Fish and Wildlife Habitat Conservation Areas
 5. City of Aberdeen Critical Area Map 5: Geologic Hazard Areas: Liquefaction and Landslide
 6. City of Aberdeen Critical Area Map 6: Geologic Hazard Areas: Seismic/Shaking Potential
 7. City of Aberdeen Critical Area Map 6: Geologic Hazard Areas: Erosion Potential
 8. City of Aberdeen Critical Area Map 6: Geologic Hazard Areas: Steep Slopes
- B. Maps and inventory lists are not complete and are to be considered only as guides to the general location and extent of critical areas. Maps will be used for a preliminary determination to suggest the presence or absence of a critical area. However, where additional properties containing features meeting the definitions of critical areas contained in

this chapter are identified by the city, properties containing such critical areas shall be subjected to the requirements of this chapter. Where mapped areas are confirmed through an advance determination under this chapter or through site visits and analysis of other available data as part of a permit application to not actually contain critical areas, the provisions of this chapter shall not apply.

14.100.022 Best Available Science

- A. Protect Functions and Values of Critical Areas With Special Consideration to Anadromous Fish. Critical area reports and decisions to alter critical areas shall rely on the best available science to protect the functions and values of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish, such as salmon and bull trout, and their habitat.
- B. Best Available Science to be Consistent with Criteria. The best available science is that scientific information applicable to the critical area prepared by local, state, or federal natural resource agencies, a qualified scientific professional, or team of qualified scientific professionals that is consistent with criteria established in WAC 365-195-900 through WAC 365-195-925.
- C. Characteristics of a Valid Scientific Process. In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions, and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the permit review process is reliable scientific information, the Director shall determine whether the source of the information displays the characteristics of a valid scientific process. Such characteristics are as follows:
 - 1. Peer Review. The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The proponents of the information have addressed the criticism of the peer reviewers. Publication in a refereed scientific journal usually indicates that the information has been appropriately peer-reviewed;
 - 2. Methods. The methods used to obtain the information are clearly stated and reproducible. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to ensure their reliability and validity;
 - 3. Logical Conclusions and Reasonable Inferences. The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained;
 - 4. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods;
 - 5. Context. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge; and

6. References. The assumptions, analytical techniques, and conclusions are well referenced with citations to relevant, credible literature and other pertinent existing information.
- D. Nonscientific Information. Nonscientific information may supplement scientific information, but it is not an adequate substitute for valid and available scientific information. Common sources of nonscientific information include the following:
1. Anecdotal Information. One or more observations that are not part of an organized scientific effort (for example, “I saw a grizzly bear in that area while I was hiking”);
 2. Non-Expert Opinion. Opinion of a person who is not a qualified scientific expert in a pertinent scientific discipline (for example, “I do not believe there are grizzly bears in that area”); and
 3. Hearsay. Information repeated from communication with others (for example, “At a lecture last week, Dr. Smith said there were no grizzly bears in that area”).
- E. Absence of Valid Scientific Information. Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area leading to uncertainty about the risk to critical area function of permitting an alteration of or impact to the critical area, the Director shall:
1. Take a “precautionary or a no-risk approach,” that strictly limits development and land use activities until the uncertainty is sufficiently resolved; and
 2. Require application of an effective adaptive management program that relies on scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. An adaptive management program shall:
 - a. Address funding for the research component of the adaptive management program;
 - b. Change course based on the results and interpretation of new information that resolves uncertainties; and
 - c. Commit to the appropriate timeframe and scale necessary to reliably evaluate regulatory and non-regulatory actions affecting protection of critical areas and anadromous fisheries.

14.100.030 Administrative Procedures

The administrative procedures followed during the critical area review process shall conform to the standards and requirements of the city. This shall include, but not be limited to, timing, appeals, and fees associated with applications covered by this Chapter.

14.100.031 Fees

- A. The city may, by resolution establish fees for preparation of a critical area identification form, critical area review processing, and other services provided by the city as required by this

Chapter. If the City chooses to charge fees, these fees shall be based on the anticipated sum of direct costs incurred by the city for any individual development or action and may be established as a sliding scale that will recover all of the city costs including the enforcement of these code provisions. Basis for these fees shall include, but not be limited to, the cost of engineering and planning review time, cost of inspection time, costs for administration, and any other special costs attributable to the critical area review process.

- B. Unless otherwise indicated in this Chapter, the applicant shall be responsible for the initiation, preparation, submission, and expense of all required reports, assessment(s), studies, plans, reconnaissance(s), peer review(s) by qualified consultants, and other work prepared in support of or necessary to review the application.

14.100.032 Administrative Rules

The City of Aberdeen Department of Community Development is authorized to adopt such administrative rules and regulations as necessary and appropriate to perform critical area review, implement this Chapter and to prepare and require the use of such forms as necessary for its administration. The Director may grant the authority to perform critical area review, and compliance and enforcement activities pursuant to this Chapter to other City staff.

14.100.034 Permit Processing

- A. The approval or denial of an activity or modification within a critical area shall be an administrative action of the Director for actions requiring only a building permit or other permit action requiring only ministerial action as defined by relevant city codes. The review process will be integrated with the review of the underlying permit.
- B. Public Notice. Review of a proposal under this Chapter will require public notice if any of the following criteria are met:
 - 1. If a project requires another permitting action by the city that requires a public hearing, consideration of critical areas will be integrated with the underlying permitting process. If the Director determines that critical areas may be affected by the proposal and a critical area report is required, public notice of the application shall include a description of the critical area that might be affected and state that a critical area report(s) is required.
 - 2. Approval of a reasonable use exception under Section 14.100.051 or variance under Section 14.100.053 will require public notice, provided that the Director may waive this requirement for additions or alterations to:
 - a. Existing single family residential units;
 - b. Existing commercial and mixed-use units with a footprint of less than 4000 square feet prior to the alteration or addition.
- C. Preliminary Consultation. Any person preparing to submit an application for development or use of land that may be regulated by the provisions of this Chapter may conduct an optional consultation meeting with the Director prior to submitting an application for development or other approval. At this meeting, the Director shall discuss the requirements of this Chapter; provide critical area maps, scientific information, and other source materials; outline the review process; and work with the activity proponent to identify any potential concerns that

might arise during the review process, in addition to discussing other permit procedures and requirements.

- D. The city shall perform the process discussed below as part of the critical area review:
1. Verify the information submitted by the applicant for the applicable permit;
 2. Evaluate the project area and vicinity for critical areas. Such evaluation may include a site visit if the Director has reason to believe that a project may involve a critical area;
 3. For wetland and/or fish and wildlife habitat conservation areas, the city may require that boundaries be verified and mapped by a qualified professional. The scale of the boundary information shall be the same as the city maps, and such boundaries shall be submitted to the city as part of the application for the applicable permit if the project is:
 - a. Within two hundred feet of a wetland, or fish and wildlife critical area; and
 - b. Will not be receiving a no impact-waiver as provided in Section 14.100.034E below.
 4. The Director may require that the applicant mark the following boundaries on the site to reflect the proposed construction plan: the location of the building footprint, critical area(s) boundaries, the outer extent of required critical area buffers, areas to remain undisturbed, and trees and vegetation to be removed.
 - a. Field markings are intended to prevent disturbance of critical areas and buffers and may include such items such as temporary fences;
 - b. If field markings are required by the Director, the applicant shall obtain the Director's approval on the field markings before beginning any permitted activities;
 - c. The applicant shall maintain the field markings for critical area(s), critical area buffers, and areas to remain undisturbed throughout the duration of the permit.
 5. Determine whether the proposed project is likely to impact the functions or values of critical areas; and
 6. Determine if the proposed project adequately addresses the impacts and avoids impacts to the critical area associated with the project.
- E. Critical Areas Present, but no Impact - Waiver. If the Director determines that there are critical areas within or adjacent to the project area, but that the proposed activity is unlikely to degrade the functions or values of the critical area, the Director may waive the requirement for a critical area report or other applicable information. If the waiver involves a wetland, the Director may require a wetland category rating be completed prior to determining whether a waiver can be granted. A waiver may be granted if there is substantial evidence that all of the following requirements will be met:
1. There will be no alteration of the critical area or buffer;
 2. The development proposal will not impact the critical area in a manner contrary to the purpose, intent, and requirements of this Chapter; and

3. The proposal is consistent with other applicable regulations and standards.

A summary of this analysis and the findings shall be included in any staff report or decision on the underlying permit.

- F. Independent Review. Based on a review of the information contained in the critical area report and the conditions of the development proposal site, the Director may require independent review of any such study. This independent review shall be performed by a qualified professional selected by the city and paid for by the applicant. The purpose of such independent review is to assist the city in evaluating the effects on critical areas that may be caused by a development proposal and to facilitate the decision making process. Independent review may also include a request for consultation with the State of Washington Department of Fish and Wildlife, Washington State Department of Ecology, State Department of Natural Resources, or other appropriate local, state, federal or tribal agency.
- G. Critical Areas Present and Potential Impact Likely. If the Director determines that the proposed project is within, adjacent to, or is likely to impact a critical area, the Director shall:
 1. Assign the appropriate level of review for the activity:
 - a. Notification Required: Activities and uses that require prior notification to the Director must comply with the standards of this Chapter, and may be required to comply with additional requirements as deemed necessary by the Director. The Director may require review and submittal of a critical area report following notification of emergency actions undertaken under Section 14.100.050.C.
 - b. Review Required: Activities and uses that require review by the Director, but that are not required to submit a Critical Areas Report.
 - c. Critical Areas Report Required: Activities and uses that require review by the Director and that are required to submit a critical areas report.
 2. Notify the applicant if a critical area report, SEPA checklist, and other applicable information must be submitted prior to further review of the project, and indicate each of the critical area types that should be addressed.
 3. Review and evaluate the critical area report and other applicable information to determine whether the development proposal conforms to the purposes and performance standards of this Chapter;
 4. Assess potential impacts to the critical area and determine if they are necessary and unavoidable;
 5. Determine if any mitigation, monitoring plans and bonding measures proposed by the applicant are sufficient to protect the functions and values of the critical area and public health, safety, and welfare concerns consistent with the goals, purposes, objectives, and requirements of this Chapter; and
 6. Prepare a Determination: A summary of this analysis and the findings shall be included in any decision on the underlying permit(s). Critical area review findings may result in: a)

no adverse impacts to critical area(s), b) list of applicable critical area(s) protection conditions for the underlying permit(s), or c) denial of permit based upon unavoidable impacts to critical area(s) functions and values.

14.100.035 Appeals

Any decision to approve, condition, or deny a development proposal or other activity based on the requirements of this Chapter may be appealed according to, and as part of, the appeal procedure set forth in Chapter 17.76 of the Municipal Code for the permit or approval involved. Construction under any critical area review approval issued by the city shall be stayed until the expiration of any appeal period or the final resolution by the city of any appeal which has been filed under this chapter.

14.100.040 Interpretation

In the interpretation and application of this ordinance, the provisions of this Chapter shall be considered to be the minimum requirements necessary, shall be liberally construed to serve the purpose of this ordinance, and shall be deemed to neither limit nor repeal any other provisions under state statute.

14.100.041 Relationship to Other Regulations

- A. These critical area regulations shall apply as an overlay to the city's zoning code (Title 17) and other applicable regulations adopted by the city, including but not limited to permitting processes, construction standards, building code, shorelines management program, and environmental review (SEPA) procedures. In the case of conflict among regulations, whichever provision or regulation provides the greater protection to the critical area involved shall apply.
- B. . These critical area regulations shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA), as locally adopted.
- C. Compliance with the provisions of this Chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required (for example, Shoreline Substantial Development Permits, Hydraulic Project Approvals permits, Army Corps of Engineers Section 404 permits, National Pollutant Discharge Elimination System permits). The applicant is responsible for complying with these requirements, apart from the process established in this Chapter.

14.100.042 Multiple Designations

Where any parcel may be designated as having more than one critical area designation, the development standards for each category of critical area must be met. Where there is conflict between development standards of critical area categories, the most restrictive standards shall apply.

14.100.050 Exempt and Allowed Activities

- A. Exempt Activities the following activities are exempt from the provisions of this chapter:
 - 1. Maintenance of existing, lawfully established landscaping and gardens within a regulated critical area or its buffer, including but not limited to mowing lawns, weeding, removal of

noxious and invasive species, harvesting and replanting of garden crops, pruning and planting of ornamental vegetation or indigenous native species to maintain the condition and appearance of such areas as they existed prior to adoption of this code; provided, that native growth protection areas, mitigation sites, or other areas protected via conservation easements or similar restrictive covenants are not covered by this exception.

2. Maintenance, repair or replacement of an existing nonconforming structure pursuant to Section 14.100.052 that does not further alter or increase the impact to the sensitive area or buffer and results in no increased risk to life or property as a result of the proposed modification or replacement.
3. Low impact activities such as hiking, canoeing, nature study, photography, fishing, education or scientific research.
4. The removal of noxious weed species designated by Washington State or the local weed control authority, and the following species, with hand labor and light equipment: English ivy (*Hedera helix*); Himalayan blackberry (*Rubus discolor*, *R. procerus*); and Evergreen blackberry (*Rubus laciniatus*);
5. Minor site investigative work necessary for land use submittals, such as surveys, soil logs, percolation tests, and other related activities, where such activities do not require construction of new roads, removal of native trees or shrubs, or displacement of more than five cubic yards of material. Investigations involving displacement of more than five cubic yards of material, including geotechnical soil borings, groundwater monitoring wells, percolation tests, and similar activities shall require submittal of specific plans and restoration plans. In every case, impacts to the sensitive area shall be minimized and disturbed areas shall be immediately restored.
6. The application of herbicides, pesticides, organic or mineral-derived fertilizers, or other hazardous substances, if necessary, in critical area buffers, provided that their use shall be conducted in accordance with applicable state and federal law.
7. Public and private pedestrian trails, provided they are subject to the following:
 - a. The trail surface shall not exceed four feet in width;
 - b. The trail surface shall consist of gravel or pervious materials, including boardwalks;
 - c. The trail shall meet all other city requirements including water quality standards;
 - d. Sensitive area and/or buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas;
 - e. No state or local permits are required for the activity;
 - f. The trail is not located in a wetland or fish and wildlife habitat critical area; and
 - g. Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk of landslide or erosion and in accordance with an approved geotechnical report.

8. Forest practices governed by a valid forest practices permit granted by the Washington State Department of Natural Resources, except where:
 - a. The lands have been or are proposed to be converted under a conversion option harvest plan to a use other than commercial forest product production as provided in RCW 76.09.050 and 76.09.240; or
 - b. On lands which have been platted after January 1, 1960, as provided in RCW 76.09.050 and 76.09.240.
 9. Activities undertaken to comply with a United States Environmental Protection Agency superfund related order, or a Washington Department of Ecology order pursuant to the Model Toxics Control Act that specifically preempts local regulations in the findings of the order.
- B. Allowed activities requiring prior notification to the Director: Allowed activities are authorized within critical areas and buffers provided that the applicant provides a written notification to the Director, and the activity is conducted in accordance with the applicable standards noted below.
1. Allowed activities shall avoid impacts to critical areas. All allowed activities shall use mitigation sequencing to avoid potential impacts to critical areas, using best management practices that result in the least amount of impact to the critical areas where practicable. Designation as an allowed activity does not give permission to degrade a critical area or ignore risk from natural hazards. Best management practices shall be used for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, fish and wildlife protection, and regulation of chemical applications. The city may monitor the use of best management practices to ensure that the activity does not result in degradation to the critical area. Any incidental damage to, or alteration of, a critical area that is not a necessary outcome of the allowed activity shall be restored, rehabilitated, or replaced at the responsible party's expense within one growing season.
 2. Form of Notification: Submittal of drawings, plans or other documentation necessary to obtain city permits or approvals to conduct the work will satisfy the notification requirements. If no other city permits or approvals are required to conduct the work, notification containing the following information will be submitted to the Director:
 - a. the name of the property owner and the person(s) doing the work;
 - b. the address and location of where the work will be performed;
 - c. phone number where the persons conducting the work can be reached;
 - d. the proposed start and end dates when the work will be performed;
 - e. the type of critical area to be affected;
 - f. specific information describing the activity and the mitigation to be implemented to document that the activity will not result in increased risk to public health, safety and

welfare, that adverse impacts to critical areas are minimized, and that disturbed areas are restored.

- g. The notification will be signed and dated by the person doing the work.
3. The notification will be submitted at least ten full business days prior to initiating work. Unless otherwise specified, notification shall be valid for one year per activity provided that there is no change in the scope of the project including, but not limited to, the location and/or extent of the activity allowed under the notification process.
4. Upon receipt of the notification, the Director may provide guidance on best management practices for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and use of chemical applications to be used in the execution of the following activities:
5. The following activities as specified are authorized within critical areas and buffers provided that the applicant provides a written notification to the Director as described above.
 - a. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the existing improved portion of the public right-of-way (road surface, shoulder, sidewalks, and fill slopes) or the improved portion of city-authorized private roadway; provided, that no fill or discharge occurs outside the existing improved area and with appropriate best management practices to control erosion, sedimentation and other potential impacts. Excluded is work within a water body or wetland, including but not limited to culverts or bridge replacement or construction.
 - b. Utility projects that have minor or short-duration impacts to critical areas and buffers, as determined by the Director in accordance with the criteria below, and which do not significantly impact the functions or values of a sensitive area(s); provided, that such projects are constructed with best management practices and appropriate restoration measures are provided. These activities shall not result in the transport of sediment or increased stormwater. Such allowed minor utility projects shall meet the following criteria:
 - i. There is no practical alternative to the proposed activity with less impact on sensitive areas;
 - ii. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and
 - iii. The activity involves disturbance of less than seventy-five square feet of the sensitive area and/or buffer.
 - c. The removal of hazard trees from sensitive areas and buffers that are posing a threat to public safety, or an imminent risk of damage to a permanent structure; provided that:

- i. The applicant submits a report from a certified arborist or professional forester that documents the hazard; provided, that the Director may waive this requirement for any trees that are clearly dead, or dying, and provides a replanting schedule for the replacement trees;
 - ii. Tree cutting shall be limited to pruning and crown thinning, unless otherwise justified by a qualified professional. Where pruning or crown thinning is not sufficient to address the hazard, trees should be removed or converted to wildlife snags;
 - iii. If native vegetation is cut or removed from a sensitive area or buffer, it shall be left within the sensitive area or buffer where practicable unless removal is warranted due to safety considerations, the presence of an established disease infestation or other hazard, or because of access or maintenance needs if the area is a utility or access right-of-way;
 - iv. The landowner shall replace any trees that are removed with new trees at a ratio of two replacement trees for each tree removed (two-to-one) within one year in accordance with an approved restoration plan. Replacement trees shall be species that are native and indigenous to the site and a minimum of one inch in diameter-at-breast height (dbh) for deciduous trees and a minimum of three feet in height for evergreen trees as measured from the top of the root ball; provided, that the Director may allow smaller replacement trees with a higher replacement ratio;
 - v. Hazard trees that constitute an emergency may be removed or pruned by the landowner prior to receiving written approval from the city; provided, that within fourteen days following such action, the landowner shall submit a restoration plan that demonstrates compliance with the provisions of this chapter;
- d. Measures to control a fire or halt the spread of disease or damaging insects consistent with the state Forest Practices Act, Chapter 76.09 RCW; provided, that the removed vegetation shall be replaced in-kind or with similar native species within one year in accordance with an approved restoration plan.
 - e. Maintenance, operation and/or repair of existing rights-of-way, trails, roads, utilities, dikes, ditches, levees, buildings and other facilities within critical areas and buffers; provided, that the activity does not further alter, impact, or encroach upon the sensitive area or buffer or further affect the functions of sensitive areas, and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair. Notification to the Director shall also include:
 - i. Type, timing, frequency and sequence of maintenance activity to be conducted;
 - ii. Type of equipment to be used (hand or mechanical);
 - iii. Manner in which the equipment will be used; and
 - iv. Best management practices to be used.

- f. Project and facilities for restoration and enhancement of ecological functions of critical areas and related resources may be allowed within critical areas and buffers, upon approval of a restoration and mitigation plan in accordance with the provisions of this chapter, or for restoration or enhancement programs in an adopted shoreline restoration plan pursuant to Chapter 173-26 WAC, a watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a watershed restoration project pursuant to RCW 89.08.460, a salmonid recovery plan, the salmon recovery board habitat project list, or identified by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement pursuant to RCW 77.55.290.
- C. Emergency Actions: Emergency actions are those activities necessary to prevent an immediate threat to life, to public health, safety, or welfare, or that pose an immediate risk of damage to private structures or improvements and that require remedial or preventative action in a time frame too short to allow for compliance with the procedural requirements of this chapter.
1. Emergency actions that create an impact on a critical area or its buffer shall be limited to those actions that are required to address the emergency and generally are limited to the actions necessary to remove the immediate threat. Additional actions to permanently address a deficiency generally do not qualify as emergency actions and require full compliance with the procedural requirements of this chapter. Emergency actions also must be carried out in a manner that has the least feasible impact on the critical area or its buffer.
 2. The person or agency undertaking emergency action shall notify the Director within one working day following commencement of the emergency activity. Within fourteen days, the Director shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the Director determines that the action taken, or any part of the action taken, was beyond the scope of an allowed emergency action, then the enforcement provisions of Section 14.100.091 shall apply.
 3. After the emergency, the person or agency undertaking the action shall submit a critical area report to assess effects on critical areas and conduct necessary restoration and/or mitigation for any impacts to the critical area and buffers resulting from the emergency action in accordance with an approved critical area report and mitigation plan. The person or agency undertaking the action shall apply for all approvals required by this chapter. Restoration and/or mitigation activities must be initiated within sixty days of the date of the emergency, unless an extension is approved by the Director, and completed in a timely manner.

14.100.051 Reasonable Use

- A. If the application of this Chapter would deny all reasonable use of the subject property, the property owner may apply for an exception pursuant to this Section.
- B. Exception request and review process. An application for a reasonable use exception shall be made to the city and shall include a critical area report, including mitigation plan, if necessary; and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW) (SEPA documents). The Director shall

determine whether an exception request shall be granted based on review of the submitted information, a site inspection, and the proposal's ability to comply with reasonable use exception criteria. The Director shall approve with conditions, or deny the request based on the proposal's ability to comply with the following reasonable use exception review criteria:

1. The application of this Chapter would deny all reasonable use of the property;
 2. No other reasonable use of the property has less impact on the critical area;
 3. The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property;
 4. The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant after the effective date of this Chapter or its predecessor; and
 5. The proposal meets the review criteria set forth in this Chapter.
 6. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
 7. The proposal will result in no net loss of critical area functions and values consistent with the best available science; through on and off-site mitigation actions.
- C. Burden of proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

14.100.052 Nonconforming Development

Nonconforming uses shall be governed in accordance with the provisions of the zoning code in Title 17 of this code or in accordance with the shoreline management program in Chapter 16.20 of this code, subject to additional provisions in this chapter. Such use may not be altered or expanded except in compliance with standards provided in said codes and this chapter.

14.100.053 Variances

- A. Variances from the standards of this Chapter may be authorized by the city in accordance with the procedures set forth in Section 17.68.050 of the city Municipal Code, and other procedures in the municipal code cited to by Section 17.68.050. The board of adjustment shall review the request and make a written finding that the request meets or fails to meet the variance criteria.
- B. Variance Criteria. A variance may be granted only if the applicant demonstrates that the requested action conforms to all of the criteria set forth as follows:
1. Special conditions and circumstances exist that are peculiar to the land, the lot, or something inherent in the land, and that are not applicable to other lands in the same district;
 2. The special conditions and circumstances do not result from the actions of the applicant;

3. A literal interpretation of the provisions of this Chapter would deprive the applicant of all reasonable economic uses and privileges permitted to other properties in the vicinity and zone of the subject property under the terms of this Chapter, and the variance requested is the minimum necessary to provide the applicant with such rights;
 4. Granting the variance requested will not confer on the applicant any special privilege that is denied by this Chapter to other lands, structures, or buildings under similar circumstances;
 5. The granting of the variance is consistent with the general purpose and intent of this Chapter, and will not further degrade the functions or values of the associated critical areas or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property;
 6. The decision to grant the variance includes the best available science and gives special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish habitat; and
 7. The granting of the variance is consistent with the general purpose and intent of the city of Aberdeen comprehensive plan and adopted development regulations.
- C. **Conditions May Be Required.** In granting any variance, the board of adjustment may prescribe such conditions and safeguards as are necessary to secure adequate protection of critical areas from adverse impacts, and to ensure conformity with this Chapter.
- D. **Time Limit.** The board of adjustment shall prescribe a time limit within which the action for which the variance is required shall be begun, completed, or both. Failure to begin or complete such action within the established time limit shall void the variance.
- E. **Burden of Proof.** The burden of proof shall be on the applicant to bring forth evidence in support of the application and upon which any decision has to be made on the application. “

14.100.060 Critical Area Reports – General Requirements

- A. Prepared by qualified professional. If required by Section 14.100.024.G.2, the applicant shall submit a report prepared by a qualified professional as defined herein.
- B. Incorporating best available science. The report shall use scientifically valid methods and studies in the analysis of data and field reconnaissance and reference the source of science used. The report shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this Chapter.
- C. Minimum report contents. At a minimum, the report shall contain the following:
 1. The name and contact information of the applicant, a description of the proposal, and identification of the permit requested;
 2. A copy of the site plan for the development proposal showing:

- a. Identified critical areas, buffers, and the development proposal with dimensions;
 - b. Limits of any areas to be cleared; and
 - c. A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations, consistent with the current edition of the city of Aberdeen building standards;
3. The names and professional qualifications of the persons preparing the report and documentation of any fieldwork performed on the site;
 4. Identification and characterization of all critical areas, wetlands, water bodies, and buffers adjacent to the proposed project area;
 5. A statement specifying the accuracy of the report, and all assumptions made and relied upon;
 6. An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development;
 7. An analysis of site development alternatives;
 8. A description of reasonable efforts made to apply mitigation sequencing pursuant to Section 14.100.071 to avoid, minimize, and mitigate impacts to critical areas;
 9. Plans for adequate mitigation, as needed, to offset any impacts, in accordance with Section 14.100.070 through 14.100.073, including, but not limited to:
 - a. The impacts of any proposed development within or adjacent to a critical area or buffer on the critical area; and
 - b. The impacts of any proposed alteration of a critical area or buffer on the development proposal, other properties and the environment;
 10. A discussion of the performance standards applicable to the critical area and proposed activity;
 11. Financial guarantees to ensure compliance, if applicable; and
 12. Any additional information required for the critical area as specified in the corresponding chapter.
- D. Unless otherwise provided, a report may be supplemented by or composed, in whole or in part, of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved in advance by the Director.

14.100.061 Critical Area Reports – Modifications to Requirements

- A. Limitations to Study Area. The Director may limit the required geographic area of the critical area report as appropriate if:

1. The applicant, with assistance from the city, cannot obtain permission to access properties adjacent to the project area; or
 2. The proposed activity will affect only a limited part of the subject site.
- B. Modifications to Required Contents. The applicant may consult with the Director prior to or during preparation of the critical area report to obtain city approval of modifications to the required contents of the report where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation.
- C. Additional Information Requirements. The Director may require additional information to be included in the critical area report when determined to be necessary to the review of the proposed activity in accordance with this Chapter. Additional information that may be required, includes, but is not limited to:
1. Historical data, including original and subsequent mapping, aerial photographs, data compilations and summaries, and available reports and records relating to the site or past operations at the site;
 2. Grading and drainage plans; and
 3. Information specific to the type, location, and nature of the critical area.

14.100.070 Mitigation Requirements

- A. The applicant shall avoid all impacts that degrade the functions and values of a critical area or areas. Unless otherwise provided in this Chapter, if alteration to the critical area is unavoidable, all adverse impacts to or from critical areas and buffers resulting from a development proposal or alteration shall be mitigated using the best available science in accordance with an approved critical area report and SEPA documents.
- B. Mitigation shall be in-kind and on-site, when possible, and sufficient to maintain the functions and values of the critical area, and to prevent risk from a hazard posed by a critical area.
- C. The Director may approve off-site mitigation if the applicant demonstrates that no viable on-site mitigation opportunities exist. Compensatory mitigation proposed off-site shall be provided in the location that will provide the greatest ecological benefit and have the greatest likelihood of success. Preference will be given to off-site mitigation as close as possible to the impact area and within the same watershed sub-basin as the permitted alteration; provided, that off-site mitigation may occur within the watershed of a stream or River flowing the grays Harbor Estuary and within WRIA 22 upon demonstration through a watershed- or landscape-based analysis that mitigation within an alternative sub-basin of the watershed would have greater ecological benefit. Off-site mitigation sites preference shall be given to sites and restoration activities identified in an adopted shoreline restoration plan pursuant to Chapter 173-26 WAC, a watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a watershed restoration project pursuant to RCW 89.08.460, a salmonid recovery plan, the salmon recovery board habitat project list, or identified by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement pursuant to RCW 77.55.290.

- D. The city may approve mitigation banking as a form of compensatory mitigation for wetlands and fish and wildlife habitat conservation area impacts when the provisions of this chapter require mitigation and when it is clearly demonstrated that the use of a mitigation bank will provide equivalent or greater replacement of critical area functions and values when compared to conventional on-site mitigation; provided, that all of the following criteria are met:
1. Mitigation banks shall only be used when they provide significant ecological benefits including long-term conservation of critical areas, important species, habitats and/or habitat linkages, and when they are consistent with the city's comprehensive plan and create a viable alternative to the piecemeal mitigation for individual project impacts to achieve ecosystem-based conservation goals.
 2. The mitigation bank shall be established in accordance with the Washington State Draft Mitigation Banking Rule, Chapter 173-700 WAC or as revised, and Chapter 90.84 RCW and the federal mitigation banking guidelines as outlined in the Federal Register, Volume 60, No. 228, November 28, 1995. These guidelines establish the procedural and technical criteria that banks must meet to obtain state and federal certification.
 3. Preference shall be given to mitigation banks that implement restoration actions that have been identified in an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a salmonid recovery plan or project that has been identified on the salmon recovery board habitat project list or by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.
- E. Mitigation shall not be implemented until a) after city receipt of a report or other applicable information that includes a mitigation plan, and mitigation shall be in accordance with the provisions of the report or other applicable information; and b) city approval of the underlying permit(s).
- F. Mitigation monitoring shall be required for a minimum of five years. If a scrub-shrub or forested vegetation community is proposed, monitoring may be required for ten years or more. The project mitigation plan shall include monitoring elements that ensure certainty of success for the project natural value and functions. If the mitigation goals are not obtained within the initial five year period, the applicant remains responsible for restoration of the natural values and functions until the mitigation goals agreed to in the mitigation plan are achieved.

14.100.071 Mitigation Sequencing

Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference:

- A. Avoiding the impact altogether by not taking a certain action or parts of an action;
- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;

- C. Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by repairing, enhancing, or restoring the affected environment to the historical conditions, or pre-development, or the conditions existing at the time of the initiation of the project;
- D. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through approval engineered or other methods;
- E. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- F. Compensating for the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and fish and wildlife habitat, and vegetation conservation areas by replacing, enhancing, or providing substitute resources or environments; and
- G. Monitoring the hazard or other required mitigation for a reasonable period of time and taking remedial action when necessary.
- H. Mitigation for individual actions may include a combination of the above measures.

14.100.072 Mitigation Plan Requirements

When mitigation is required, the applicant shall submit to the city a mitigation plan as part of the critical area report or other applicable information. The goals and objectives will be related to the functions and values of the impacted critical area, they include;

- A. Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensation proposed and including:
 - 1. A description of the anticipated impacts to the critical areas and the mitigating actions proposed and the purposes of the compensation measures, including the site selection criteria; identification of compensation goals; identification of resource functions; and dates for beginning and completion of site compensation construction activities.
 - 2. A review of the best available science supporting the proposed mitigation and a description of the report author's experience to date in restoring or creating the type of critical area proposed; and
 - 3. An analysis of the likelihood of success of the compensation project.
- B. Performance Standards. The mitigation plan shall address the applicable performance standards identified in this Chapter.
- C. Detailed Construction Plans. The mitigation plan shall include written specifications and descriptions of the mitigation proposed, such as:
 - 1. The proposed construction sequence, timing, and duration;
 - 2. Grading and excavation details;
 - 3. Erosion and sediment control features;

4. A vegetation planting plan specifying plant species, quantities, locations, size, spacing, and density; and
5. Measures to protect and maintain plants until established.

These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome.

- D. **Monitoring Program.** The mitigation plan shall include a program for monitoring construction of the compensation project, and for assessing a completed project. A protocol shall be included outlining the schedule for site monitoring in years one, three and five after site construction, and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted as needed to document milestones, successes, problems, and contingency actions of the compensation project. At a minimum, a monitoring report shall be submitted to document mitigation plan performance in year five after site construction.
- E. **Contingency Plan.** The mitigation plan shall include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.
- F. **Financial Guarantees.** The mitigation plan shall include financial guarantees, if necessary, to ensure that the mitigation plan is fully implemented. Financial guarantees ensuring fulfillment of the compensation project, monitoring program, and any contingency measures shall be posted in accordance with Section 14.100.074.
- G. **Other Permits.** Other local, state, and federal regulatory jurisdictions may require permits for habitat mitigation projects. The applicant shall comply with all other appropriate regulatory permits, agreements, and authority, as required by each respective jurisdiction.

14.100.074 Bonds to Ensure Mitigation, Maintenance and Monitoring

- A. When mitigation required pursuant to a development proposal is not completed prior to the city final permit approval, such as final plat approval or final building inspection, the city shall require the applicant to post a performance bond or other security in a form and amount deemed acceptable by the city. If the development proposal is subject to mitigation, the applicant shall post a mitigation bond or other security in a form and amount deemed acceptable by the city to ensure mitigation is fully functional.
- B. The bond shall be in the amount of one hundred and twenty-five percent of the estimated cost of the uncompleted actions or the estimated cost of restoring the functions and values of the critical area that are at risk, whichever is greater.
- C. The bond shall be in the form of a surety bond, performance bond, assignment of savings account, or an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the city attorney.
- D. Bonds or other security authorized by this Section shall remain in effect until the city determines, in writing, that the standards bonded for have been met. Bonds or other security

shall be held by the city for a minimum of five years to ensure that the required mitigation has been fully implemented and demonstrated to function, and may be held for longer periods when necessary.

- E. Depletion, failure, or collection of bond funds shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, monitoring, or restoration.
- F. Public development proposals shall be relieved from having to comply with the bonding requirements of this Section if public funds have previously been committed for mitigation, maintenance, monitoring, or restoration.
- G. Any failure to satisfy critical area requirements established by law or condition including, but not limited to, the failure to provide a monitoring report within thirty days after it is due or comply with other provisions of an approved mitigation plan shall constitute a default, and the city may demand payment of any financial guarantees or require other action authorized by the city code or any other law.
- H. Any funds recovered pursuant to this Section shall be used to complete the required mitigation.

14.100.080 Notice on Title

- A. In order to inform subsequent purchasers of real property of the existence of critical areas, the owner of any property containing a critical area or buffer on which a development proposal is submitted shall file a notice with the county records and elections division according to the direction of the city. The notice shall state the presence of the critical area or buffer on the property, the application of this Chapter to the property, and the fact that limitations on actions in or affecting the critical area or buffer may exist. The notice shall “run with the land.”
- B. This notice on title shall not be required for a development proposal by a public agency or public or private utility:
 - 1. Within a recorded easement or right-of-way;
 - 2. Where the agency or utility has been adjudicated the right to an easement or right-of-way; or
 - 3. On the site of a permanent public facility.
- C. The applicant shall submit proof that the notice has been filed for public record before the city approves any site development or construction for the property or, in the case of subdivisions, short subdivisions, planned unit developments, and binding site plans, at or before recording.

14.100.081 Critical Area Tracts

- A. Critical area tracts shall be used in development proposals for subdivisions, short subdivisions, planned unit developments, and binding site plans to delineate and protect those contiguous critical areas and buffers listed below that total five thousand or more square feet:

1. All landslide hazard areas and buffers;
 2. All wetlands and buffers;
 3. All habitat conservation areas; and
 4. All other lands to be protected from alterations as conditioned by project approval.
- B. Critical area tracts shall be recorded on all documents of title of record for all affected lots.
- C. Critical area tracts shall be designated on the face of the plat or recorded drawing in a format approved by the city attorney. The designation shall include the following restriction:
1. An assurance that native vegetation will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants, fish, and animal habitat; and
 2. The right of the city to enforce the terms of the restriction.
- D. The city may require that any required critical area tract be dedicated to the city, held in an undivided interest by each owner of a building lot within the development with the ownership interest passing with the ownership of the lot, or held by an incorporated homeowner's association or other legal entity (such as a land trust, which ensures the ownership, maintenance, and protection of the tract).

14.100.083 Building Setbacks

Unless otherwise provided, buildings and other structures shall be set back a distance of fifteen feet from the edges of all critical area buffers or from the edges of all critical areas, if no buffers are required. The following may be allowed in the building setback area:

- A. Landscaping;
- B. Uncovered decks;
- C. Building overhangs, if such overhangs do not extend more than eighteen inches into the setback area; and
- D. Impervious ground surfaces, such as driveways and patios, provided that such improvements may be subject to water quality regulations as adopted in the Chapter 13.68, Stormwater Management, of the Municipal Code.

14.100.084 Temporary Marking, Permanent Signs and Fencing

The Director as a condition of approval of activities or uses under this Chapter may require that the outer boundary of a critical area or buffer be identified with temporary markers or permanent signs when needed to minimize potentially harmful intrusions from temporary construction activities, adjacent land uses, to alert citizens to a potential public health or safety risk associated with a critical area, or to accomplish other objectives specifically provided for elsewhere in this chapter. The Director shall provide specifications on the type, content, and size of the markers or signs prior to permit approval. Temporary markers will be subject to

inspection by the Director prior to the commencement of permitted activities. All temporary marking required by the approval shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place. Permanent signs, if required, shall be posted near primary access points and approximately every two hundred feet along the critical area boundary unless the Director determines that less frequent spacing is adequate considering the size and location of the site.

14.100.090 Critical Area Inspections

Reasonable access to the site shall be provided to the city, state, and federal agency review staff for the purpose of inspections during any proposal review, restoration, emergency action, or monitoring period.

14.100.091 Unauthorized Critical Area Alterations and Enforcement

- A. When a critical area or its buffer has been altered in violation of this Chapter, all ongoing development work shall stop and the critical area shall be restored. The city shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, replacement or where determined appropriate by the Director, mitigation measures at the owner's or other responsible party's expense to compensate for violation of provisions of this Chapter and other applicable city codes governing the underlying permit(s). Administrative procedures including but not limited to review and appeal of city actions related to unauthorized critical area alterations are outlined in Section 14.100.020.
- B. Restoration/Mitigation Plan Required. All development work shall remain stopped until a restoration/mitigation plan is prepared and approved by city. Such a plan shall be prepared by a qualified professional and shall describe how the actions proposed meet the minimum requirements described in Subsection C of this section and/or mitigation requirements outlined in Sections 14.100.070, 071, and 072, if mitigation is determined to be appropriate by the Director. The Director shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.
- C. Minimum Performance Standards for Restoration or Mitigation.
 1. For alterations to critical aquifer recharge areas, frequently flooded areas, wetlands, and habitat conservation areas the following minimum performance standards shall be met for the restoration or mitigation of impacts to a critical area, provided that if the violator can demonstrate in a restoration/mitigation plan that greater functional and habitat values can be obtained, these standards may be modified by the Director:
 - a. The historic structural and functional values shall be restored, including water quality and habitat functions;
 - b. The historic soil types and configuration shall be replicated;
 - c. The critical area and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities; and

- d. The historic functions and values should be replicated at the location of the alteration.
- 2. For alterations to flood and geological hazards, the following minimum performance standards shall be met for the restoration of a critical area, provided that, if the violator can demonstrate that greater safety can be obtained, these standards may be modified:
 - a. The hazard shall be reduced to a level equal to, or less than, the pre-development hazard;
 - b. Any risk of personal injury resulting from the alteration shall be eliminated or minimized; and
 - c. The hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.
- D. Site Investigations. The Director is authorized to make site inspections and take such actions as are necessary to enforce this Chapter. The Director shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.
- E. Penalties. Any person, party, firm, corporation, or other legal entity convicted of violating any of the provisions of this Chapter shall be guilty of a misdemeanor. Each day or portion of a day during which a violation of this Chapter is committed or continued shall constitute a separate offense. "Day" shall have the meaning prescribed in Section 17.96.170.A of the city Municipal Code. Any development carried out contrary to the provisions of this Chapter shall constitute a public nuisance and may be enjoined as provided by the statutes of the state of Washington. The city may levy civil penalties against any person, party, firm, corporation, or other legal entity for violation of any of the provisions of this Chapter. The civil penalty shall be assessed at a maximum rate of \$500 dollars for each day or portion of the day that the violation continues per violation.
- F. In addition to enforcement procedures and penalties provided for in this Chapter, the Director may suspend or revoke a permit if (s)he finds that the applicant or permittee has not complied with any or all of the conditions or limitations set forth in accordance with this chapter, has exceeded the scope of work set forth in the permit, or has failed to undertake the project in the manner set forth in the approved application.

14.100.100 Critical Aquifer Recharge Areas - Designation

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

- A. Wellhead Protection Areas. Wellhead protection areas may be defined by the boundaries of the ten year time of ground water travel or boundaries established using alternate criteria approved by the Washington State Department of Health in those settings where ground water time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135.
- B. Sole Source Aquifers. Sole source aquifers are areas that have been designated by the U.S. Environmental Protection Agency pursuant to the Federal Safe Water Drinking Act.
- C. Susceptible Ground Water Management Areas. Susceptible ground water management areas are areas that have been designated as moderately or highly vulnerable or susceptible in an adopted ground water management program developed pursuant to WAC 173-100.
- D. Special Protection Areas. Special protection areas are those areas defined by WAC 173-200-090.
- E. Moderately or Highly Vulnerable Aquifer Recharge Areas. Aquifer recharge areas that are moderately or highly vulnerable to degradation or depletion because of hydrogeologic characteristics are those areas delineated by a hydrogeologic study prepared in accordance with the state Department of Ecology guidelines.
- F. Moderately or Highly Susceptible Aquifer Recharge Areas. Aquifer recharge areas moderately or highly susceptible to degradation or depletion because of hydrogeologic characteristics are those areas meeting the criteria established by the state Department of Ecology.

Based on the criteria and descriptions in A through F above, the city concludes that there are no critical aquifer recharge areas within the city limits and its jurisdiction at the time of adoption of this Chapter. The city will enact appropriate provisions for critical aquifer recharge areas should any such areas be identified and designated in the future.

14.100.200 Wetlands Critical Areas - Designation

- A. Wetlands are those areas 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 adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.
- B. Wetlands shall be identified in accordance with the requirements of RCW 36.70A.175 and 90.58.380. Unless otherwise provided for in this chapter, all areas within the city meeting the criteria in the Washington State Wetland Identification and Delineation Manual (Ecology Publication 96-94) regardless of any formal identification are hereby designated critical areas and are subject to the provisions of this chapter.
- C. Wetlands shall be rated based on categories that reflect the functions and values of each wetland. Wetland categories shall be based on the criteria provided in the Washington State Wetland Rating System for Western Washington, revised August 2004 (Ecology Publication No. 04-06-025). These categories are generally defined as follows:
 - 1. Category I Wetlands. Category I wetlands are those wetlands of exceptional value in terms of protecting water quality, storing flood and stormwater, and/or providing habitat for wildlife as indicated by a rating system score of seventy points or more. These are wetland communities of infrequent occurrence that often provide documented habitat for critical, threatened or endangered species, and/or have other attributes that are very difficult or impossible to replace if altered.
 - 2. Category II Wetlands. Category II wetlands have significant value based on their function as indicated by a rating system score of between fifty-one and sixty-nine points. They do not meet the criteria for Category I rating but occur infrequently and have qualities that are difficult to replace if altered.
 - 3. Category III Wetlands. Category III wetlands have important resource value as indicated by a rating system score of between thirty and fifty points.
 - 4. Category IV Wetlands. Category IV wetlands are wetlands of limited resource value as indicated by a rating system score of less than thirty points. They typically have vegetation of similar age and class, lack special habitat features, and/or are isolated or disconnected from other aquatic systems or high quality upland habitats.

14.100.210 Mapping of Wetland Areas

- A. The approximate location and extent of known or suspected wetlands are shown in the city of Aberdeen Critical Area Map 1 and the National Wetlands Inventory Map, or their latest revisions. This information is to be used as a guide for the city, project applicants and/or property owners, and may be updated as new information becomes available. Other,

unmapped wetlands may exist within the city. These maps are to be used as a reference and do not provide a definitive critical area designation.

- B. The exact location of a wetland's boundary shall be determined through the performance of a field investigation by a qualified professional applying the Washington State Wetland Identification and Delineation Manual, or as revised, as required by RCW 36.70A.175 (Ecology Publication 96-94).

14.100.220 Critical Area Report – Additional Requirements for Wetland Areas

- A. Prepared by a Qualified Professional. A critical area report for wetlands shall be prepared by a qualified professional who is a certified professional wetland scientist or a non-certified professional wetland scientist with a minimum of five years experience in the field of wetland science and with experience preparing wetland reports.
- B. The following areas shall be addressed in a critical area report for wetlands:
 - 1. The project area of the proposed activity;
 - 2. All wetlands and recommended buffers within three hundred feet of the project area; and
 - 3. All shoreline areas, water features, flood plains, and other critical areas, and related buffers within three hundred feet of the project area.
- C. Wetland Analysis. In addition the minimum required contents of critical area reports in Section 14.100.060 and 14.100.061, a critical area report for wetlands shall contain an analysis of the wetlands including the following site- and proposal-related information at a minimum:
 - 1. A written assessment and accompanying maps of the wetlands and buffers within three hundred feet of the project area, including the following information at a minimum:
 - a. Wetland delineation and required buffers;
 - b. Existing wetland acreage;
 - c. Wetland category;
 - d. Vegetative, faunal, and hydrologic characteristics;
 - e. Soil and substrate conditions;
 - f. Topographic elevations, at two-foot contours and
 - g. A discussion of the water sources supplying the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year – drift lines, algal layers, moss lines, and sediment deposits).
 - 2. A discussion of measures, including avoidance, minimization and mitigation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity.

3. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.
 4. Functional evaluation for the wetland and adjacent buffer using a local or state agency staff-recognized method and including the reference of the method and all data sheets.
 5. Proposed mitigation, if needed, including a written assessment and accompanying maps of the mitigation area, including the following information at a minimum:
 - a. The information required by Section 14.100.072, Mitigation Requirements, of this chapter.
 - b. Existing wetland acreage and proposed impact area;
 - c. Vegetative, faunal, and hydrologic conditions;
 - d. Surface and subsurface hydrologic conditions including an analysis of existing and future hydrologic regime and proposed hydrologic regime for enhanced, created, or restored mitigation areas;
 - e. Relationship within watershed and to existing waterbodies;
 - f. Soil and substrate conditions, topographic elevations;
 - g. Existing and proposed adjacent site conditions;
 - h. Required wetland buffers (including any buffer reduction and mitigation proposed to increase the plant densities, remove weedy vegetation, and replant the buffers);
 - i. Property ownership; and
 - i. Associated wetlands and related wetlands that may be greater than three hundred feet from the subject project.
 6. A scale map of the development proposal site and adjacent area. A discussion of ongoing management practices that will protect wetlands after the project site has been developed; including proposed monitoring and maintenance programs.
 7. A bond estimate for the installation (including site preparation, plant materials and installation, fertilizers, mulch, stakes) and the proposed monitoring and maintenance work for the required number of years.
 8. A description of how the applicant intends to meet the requirements of Section 14.100.074, Bonds to Ensure Mitigation, maintenance and Monitoring, or this chapter.
 9. Notice on Title, as required by Section 14.100.080.
- D. Wetlands Analysis for activities impacting wetlands that have buffers established according to Section 14.100.250.C. In addition to the minimum required contents of critical area reports in Section 14.100.060 and 14.100.061, a critical area report for wetlands for which buffers have been pre-assessed shall contain an analysis of the wetlands including the following site- and proposal-related information at a minimum:

1. A written assessment and accompanying maps of the wetlands and buffers within three hundred feet of the project area, including the following information at a minimum:
 - a. Wetland delineation and required buffers; and
 - b. Topographic elevations, at two-foot contours.
2. A discussion of measures, including avoidance, minimization and mitigation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity.
3. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.
4. Proposed mitigation, if needed, including a written assessment and accompanying maps of the mitigation area, including the following information at a minimum:
 - a. The information required by Section 14.100.072, Mitigation Requirements, of this chapter.
 - b. Existing wetland acreage and proposed impact area;
 - c. Vegetative, faunal, and hydrologic conditions;
 - d. Surface and subsurface hydrologic conditions including an analysis of existing and future hydrologic regime and proposed hydrologic regime for enhanced, created, or restored mitigation areas;
 - e. Relationship within watershed and to existing waterbodies;
 - f. Soil and substrate conditions, topographic elevations;
 - g. Existing and proposed adjacent site conditions;
 - h. Required wetland buffers (including any buffer reduction and mitigation proposed to increase the plant densities, remove weedy vegetation, and replant the buffers);
 - i. Property ownership; and
 - i. Associated wetlands and related wetlands that may be greater than three hundred feet from the subject project.
5. A scale map of the development proposal site and adjacent area. A discussion of ongoing management practices that will protect wetlands after the project site has been developed; including proposed monitoring and maintenance programs.
6. A bond estimate for the installation (including site preparation, plant materials and installation, fertilizers, mulch, stakes) and the proposed monitoring and maintenance work for the required number of years.
7. A description of how the applicant intends to meet the requirements of Section 14.100.074, Bonds to Ensure Mitigation, maintenance and Monitoring, or this chapter.

8. Notice on Title, as required by Section 14.100.080.

- E. Additional information may be required. When appropriate, the city may also require the critical area report to include an evaluation by the Department of Ecology or an independent qualified expert regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, and to include any recommendations as appropriate.

14.100.230 Allowed Activities in Wetland Areas

- A. The following activities are allowed in wetland areas pursuant to Exempt Activities [Section 14.100.050.A], and do not require notification to the Director, review by the Director or submittal of a critical area report, except where such activities result in a loss to the functions and values of a wetland or wetland buffer, or as otherwise specifically required below:

1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing wetland.
2. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.
3. Recreational and educational activities
4. Enhancement of a wetland through the removal of non-native invasive species. Weeding shall be restricted to hand removal and weed material shall be removed from the site. Bare areas that remain after weed removal shall be re-vegetated with native shrubs and trees at natural densities. Some hand seeding may also be done over the bare areas with native herbs.

- B. The following activities are allowed in wetland areas pursuant to Allowed Activities [Section 14.100.050.B], except where such activities result in a loss to the functions and values of a wetland or wetland buffer. These activities require notification to the Director prior to commencement of the activity, as required by Sections 14,100.050.B.2, -3, and -4.

1. Drilling for utilities under a wetland provided that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.

14.100.240 Performance Standards – General Requirements

- A. Activities may only be permitted in a wetland or wetland buffer if the applicant can show that the proposed activity will not degrade the functions and values of the wetland and other critical areas.
- B. Activities and uses shall be prohibited from wetlands and wetland buffers, except as provided for in this Chapter.

- C. Activities in wetlands or wetland buffers not expressly exempt or allowed by Section 14.100.050, or permitted in Section 14,100.241 shall require review by the Director and shall require submittal of a critical area report. The Director may modify critical area report requirements according to Section 14.100.061.

14.100.241 Performance Standards – Specific Activities

The following activities and uses require review by the Director, but do not require submittal of a critical areas report. These activities may be permitted by the Director in wetlands and/or wetland buffers provided that: the specified requirements for the activities have been included in the design and implementation of the proposal; the applicant has taken all reasonable measures to avoid adverse effects on wetland functions and values; the applicant has provided compensatory mitigation for all adverse impacts to wetlands that cannot be avoided; the applicant has demonstrated that the amount and degree of alteration is limited to the minimum needed to accomplish the project purpose; and the activities and uses are not prohibited by any other applicable law:

- A. Wetland mitigation activities reviewed and conducted in accordance with Section 14.100.260;
- B. Passive outdoor recreational or educational activities which do not significantly affect the function of the wetland or regulated buffer (including wildlife management or viewing structures, outdoor scientific or interpretive facilities, trails, hunting blinds, etc.) may be permitted within a Category II, III, or IV wetlands or their buffers and within a Category I wetland buffer if the following criteria are met:
 - 1. Trails shall not exceed four feet in width and shall be surfaced with gravel or pervious material, including boardwalks;
 - 2. The trail or facility is located in the outer twenty-five percent of the buffer area unless a location closer to the wetland edge or within the wetland is required for interpretive purposes;
 - 3. The trail or facility is constructed and maintained in a manner that minimizes disturbance of the wetland or buffer. Trails or facilities within wetlands shall be placed on an elevated structure as an alternative to fill;
- C. Stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted within a Category II, III, or IV wetland and its buffers or within a Category I wetland buffer on a case-by-case basis if the following are met:
 - 1. Due to topographic or other physical constraints, there are no feasible locations for these facilities to discharge to surface water through existing systems or outside the buffer. Locations and designs that infiltrate water shall be preferred over a design that crosses the buffer.
 - 2. The discharge is located as far from the wetland edge as possible and in a manner that minimizes disturbance of soils and vegetation and avoids long-term rill or channel erosion.

- D. Public and private roadways and railroad facilities, including bridge construction and culvert installation, if the following criteria are met:
1. There is no reasonable location or route outside the wetland or wetland buffer based on analysis of system needs, available technology and alternative routes. Location within a wetland buffer shall be preferred over a location within a wetland.
 2. Facilities parallel to the wetland edge are located as far from the wetland edge as possible and in a manner that minimizes disturbance of soils and vegetation.
 3. Clearing, grading, and excavation activities are limited to the minimum necessary, which may include placement on elevated structures as an alternative to fill, where feasible.
 4. Impacts on wetland functions are mitigated in accordance with Section 14.100.260.
- E. Access to private development sites may be permitted to cross Category II, III, or IV wetlands or their buffers, pursuant to the criteria in subsection F of this section; provided, that alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW. Exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.
- F. Utility lines and facilities providing local delivery service, not including facilities such as electrical substations, water and sewage pumping stations, water storage tanks, petroleum products pipelines and not including transformers or other facilities containing hazardous substances, may be located in Category II, III, and IV wetlands and their buffers and/or Category I wetland buffers if the following criteria are met:
1. There is no reasonable location or route outside the wetland or wetland buffer based on analysis of system needs, available technology and alternative routes. Location within a wetland buffer shall be preferred over a location within a wetland.
 2. The utility line is located as far from the wetland edge as possible and in a manner that minimizes disturbance of soils and vegetation.
 3. Clearing, grading, and excavation activities are limited to the minimum necessary to install the utility line, which may include boring, and the area is restored following utility installation.
 4. Buried utility lines shall be constructed in a manner that prevents adverse impacts to subsurface drainage. This may include the use of trench plugs or other devices as needed to maintain hydrology.
 5. Impacts on wetland functions are mitigated in accordance with Section 14.100.260.
- G. Wildlife viewing structures.
- H9. Fishing access areas down to the water's edge that shall be no larger than six feet.

14.100.242 Performance Standards - Subdivisions

The subdivision and short subdivision of land in wetlands and associated buffers is subject to the following:

- A. Land that is located wholly within a wetland or its buffer may not be subdivided;
- B. Land that is located partially within a wetland or its buffer may be divided provided that an accessible and contiguous portion of each new lot is:
 - 1. Located outside of the wetland and its buffer; and
 - 2. Meets the minimum lot size requirements of the city zoning code (Title 17).
- C. Access roads and utilities serving the proposed subdivision may be permitted within the wetland and associated buffers only if the city determines that no other feasible alternative exists in and when consistent with this Chapter.

14.100.250 Wetland Buffers - Dimensions

- A. Wetland buffer zones shall be required for all regulated activities adjacent to regulated wetlands. Any wetland created, restored or enhanced as compensation for approved wetland alterations shall also include the standard buffer required for the category of the created, restored or enhanced wetland. Buffers shall not include areas that are functionally and effectively disconnected from the wetland by a road or other substantially developed surface of sufficient width and with use characteristics such that buffer functions are not provided.
- B. The buffer standards required by this chapter presume the existence of a dense vegetation community in the buffer adequate to protect the wetland functions and values. When a buffer lacks adequate vegetation, the Director may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.
- C. The Director has the authority to pre-assess certain wetlands and establish buffer widths for such wetlands. The Director will prepare maps of wetlands that have been pre-assessed in this manner.
- D. Buffer Dimensions.
 - 1. The wetland buffer widths are based on wetland category, intensity of impacts, and wetland functions or special characteristics. Wetland buffer widths shall be determined according to whether a buffer has been pre-assessed for the specific wetland or not.
 - a. When Wetland buffers have not been pre-assessed, wetland buffer widths shall be determined according to the land-use intensities and wetland characteristics of Tables 14.100.250C. 1a and b.
 - b. When wetland buffer widths have been pre-assessed for specific wetlands, the buffer widths shall be determined according to the location and application of best Management Practices of Table 14.100.250.C.2

2. The buffer is to be vegetated with native plant communities that are appropriate for the site conditions. If vegetation in the buffer is disturbed (grazed or mowed) proponents planning changes to land that will increase impacts to wetlands need to rehabilitate the buffer with native plant communities that are appropriate for the site conditions. The width of the buffer is measured in horizontal distance. All buffers shall be measured from the wetland boundary as surveyed in the field.
3. Buffer widths for wetlands that have not been pre-assessed. The buffer for a wetland created, restored, or enhanced as compensation for wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland.
4. Buffer widths for wetlands that have been pre-assessed. The buffer for a wetland created, restored, or enhanced as compensation for wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland.

Table 14.100.25C.1a. Types of Proposed Land Use that can Result in High, Moderate and Low Levels of Impacts to Adjacent Wetlands

Level of Impact from Proposed Change in Land Use	Types of Land Uses
Low	<ul style="list-style-type: none"> • Forestry • Low-intensity open space (hiking, bird-watching, preservation of natural resources, etc) • Unpaved trails • Utility corridor without maintenance road and little to no vegetation management
Moderate	<ul style="list-style-type: none"> • Residential (one unit/acre or less) • Moderate-intensity open space (parks with biking, jogging, etc.) • Paved driveways and gravel driveways serving 3 or more residences • Paved trails •
High	<ul style="list-style-type: none"> • Commercial • Urban • Industrial • Institutional • Retail sales • Residential (more than one unit/acre) • High-intensity recreation (golf courses, ball fields, etc.)

Table 14.100.250C.1b Width of buffers needed to protect wetlands in Aberdeen

Wetland Characteristics	Buffer Width by Impact of Proposed Land Use	Other Measures Recommended for Protection
Category IV Wetlands (For wetlands scoring less than thirty points or more for all functions)		
Score for all 3 basic functions is less than 30 points	Low – 25 ft Moderate – 40 ft High – 50 ft	No additional measures at this time
Category III Wetlands (For wetlands scoring 30-50 points or more for all functions)		
Moderate level of function for habitat (score for habitat 20-28 points)	Low – 75ft Moderate – 110ft High – 150 ft	No additional measures at this time
Not meeting above characteristic	Low – 40 ft Moderate – 60 ft High – 80 ft	No additional measures at this time
Category II Wetlands (For wetlands that score 51-69 points or more for all functions or having the “Special Characteristics” identified in the rating system)		
High level of function for habitat (score for habitat 29-36 points)	Low – 150 ft Moderate – 225 ft High – 300 ft ²	Maintain connections to other habitat areas.
Moderate level of function for habitat (score for habitat 20-28 points)	Low – 75ft Moderate – 110ft High – 150 ft	No additional measures at this time
High level of function for water quality improvement and low for habitat (score for water quality 24-32 points; habitat less than 20 points)	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional surface discharges of untreated runoff
Estuarine	Low – 75 ft Moderate – 110 ft High – 150 ft	No additional measures at this time.
Not meeting above characteristic	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional measures at this time
Category I Wetlands (For wetlands that score 70 points or more for all functions or having the “Special Characteristics” identified in the rating system)		
Natural Heritage Wetlands	Low – 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries. No septic systems within 300 ft of wetland. Restore degraded parts of buffer.
Bogs	Low – 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries. Restore degraded parts of buffer.
Forested	Buffer width based on score for habitat functions or water quality functions	If forested wetland scores high for habitat, need to maintain connections to other habitat areas.
Estuarine	Low – 100 ft Moderate – 150 ft High – 200 ft	No additional measures at this time.
High level of function for habitat (score for habitat 29-36 points)	Low – 150 ft Moderate – 225 ft High – 300 ft	Restore degraded parts of buffer. Maintain connections to other habitat areas
Moderate level of function for habitat (score for habitat 20-28 points)	Low – 75ft Moderate – 110ft High – 150 ft	No additional measures at this time

Wetland Characteristics	Buffer Width by Impact of Proposed Land Use	Other Measures Recommended for Protection
High level of function for water quality improvement (24-32 points) and low for habitat (less than 20 points)	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional surface discharges of untreated runoff
Not meeting above characteristics	Low – 50 ft Moderate – 75 ft High – 100 ft	No additional measures at this time

Table 14.100.250C.2 Width of Buffers Needed to Protect Pre-assessed Wetlands in Aberdeen

Wetland	Category	Habitat Score	High Land Use Intensity Proposed Buffer Widths	
			Without BMPs ¹	With BMPs
SA3	II	20	150	110
SA4	III	20	150	110
SA5	III	18	80	60
SA6 North	III	16	80	60
SA6 North-A	IV	12	50	40
SA6 South	III	14	80	60
SA7	III	12	80	60
SA9	III	17	80	60
SA10	III	21	150	110

1. The Best Management Practices (BMPs) are defined in Section 14.100.253.(E)

- D. Where lands within the wetland buffer have an average continuous slope of twenty percent to thirty-five percent, and the required buffer width is less than one hundred feet, the buffer shall extend to a thirty percent greater dimension. In all cases, where slopes within the buffers exceed thirty-five percent, the buffer shall extend twenty-five feet beyond the top of the bank of the sloping area or, if a buffer associated with a geological hazard is present, to whichever extent is greater.
- E. Because there is a large increase in width associated with a one point increase in the habitat score, the Director may deviate from the buffer requirements outlined in 14.100.250C and increase the buffer widths in increments of twenty feet for every one point increase in the habitat score in accordance with guidance developed by the Department of Ecology in Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands (Publication #05-06-008).
- F. Where other critical areas defined in this chapter fall within the wetland buffer, the buffer dimension shall be the most expansive of the buffers applicable to any applicable critical area.

14.100.251 Performance Standards – Wetland Buffer Averaging

The permit approval authority may average wetland buffer widths on a case-by-case basis when the applicant demonstrates through a critical area study to the satisfaction of the Director that all the following criteria are met:

- A. Averaging to improve wetland protection may be permitted when all of the following conditions are met as demonstrated by a critical area report pursuant to Section 14.100.220:

1. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a “dual-rated” wetland with a Category I area adjacent to a lower rated area;
 2. The buffer is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower-functioning or less sensitive portion;
 3. The total area of the buffer after averaging is equal to the area required without averaging and all increases in buffer dimension for averaging are generally parallel to the wetland edge;
 4. The buffer at its narrowest point is never less than seventy-five percent of the required width.
- B. Averaging to allow reasonable use of a parcel may be permitted when all of the following are met as demonstrated by a critical area report pursuant to Section 14.100.220:
1. There are no feasible alternatives to the site design that could be accomplished without buffer averaging;
 2. The averaged buffer will not result in degradation of the wetland’s functions and values;
 3. The total buffer area after averaging is equal to the area required without averaging and all increases in buffer dimension for averaging are generally parallel to the wetland edge;
 4. The buffer at its narrowest point is never less than three-quarters of the required width except where the Director finds that there is an existing feature such as a roadway that limits buffer dimension, or an essential element of a proposed development such as access that must be accommodated for reasonable use and requires a smaller buffer.
- C. The applicant implements all reasonable measures to reduce the adverse effects of adjacent land uses and ensure no net loss of wetland functions and values in conjunction with a wetland assessment study and mitigation plan.

14.100.252 Performance Standards – Wetland Buffer Increase

The permit approval authority may increase the width of the standard buffer width on a case-by-case basis, based on a critical area report, when a larger buffer is required to protect critical habitats as outlined in Section 14.100.500, or such increase is necessary to:

- A. Protect the function and value of that wetland from proximity impacts of adjacent land use, including noise, light and other disturbance, not sufficiently limited by buffers provided above;
- B. Maintain viable populations of priority species of fish and wildlife; or
- C. Protect wetlands or other critical areas from landslides, erosion or other hazards.

14.100.253 Performance Standards – Wetland Buffer Decrease

The Director shall have the authority to reduce the standard buffer widths identified in Section 14.100.250, provided that the general standards for avoidance and minimization per Section 14.100.071A and B shall apply, and provided further that all of the following apply:

- A. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;
- B. The buffer of a Category I or II wetland that has not been pre-assessed shall not be reduced to less than seventy-five percent of the required buffer or fifty feet, whichever is greater;
- C. The buffer of a Category III or IV wetland that has not been pre-assessed shall not be reduced to less than seventy five percent of the required buffer, or twenty-five feet, whichever is greater;
- D. The buffer of a wetland that has been pre-assessed according to Section 14.100.250.C shall not be reduced to a value lower than that shown in the column titled Buffer Width with BMPs in Table 14.100.250.C.2 for the specific wetland under consideration.
- E. The applicant implements all reasonable measures to reduce the adverse effects of adjacent land uses and ensure no net loss of buffer functions and values. The specific measures that shall be implemented include, but are not limited to, the following:
 - 1. Direct lights away from the wetland and buffer.
 - 2. Locate facilities that generate substantial noise (such as some manufacturing, industrial and recreational facilities) away from the wetland and buffer.
 - 3. Establish covenants limiting use of pesticides within one hundred-fifty feet of wetland.
 - 4. Implement integrated pest management programs.
 - 5. Infiltrate or treat, detain and disperse runoff into buffer.
 - 6. Post signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the city.
 - 7. Plant buffer with native vegetation appropriate for the region to create screens or barriers to noise, light, human intrusion and discourage domestic animal intrusion.
 - 8. Use low impact development where appropriate.
 - 9. Establish a permanent conservation easement to protect the wetland and the associated buffer.

14.100.254 Performance Standards – Buffer Management Plan

In order to maintain effective buffer conditions and functions, a vegetation management plan shall be required for all buffer areas, to include:

- A. Maintaining adequate cover of native vegetation including trees and understory; if existing tree cover is less than a relative density of twenty, planting shall be required consisting of seedlings at a density of three hundred stems per acre or the equivalent;
- B. Provide a dense screen of native evergreen trees at the perimeter of the buffer. If existing vegetation is not sufficient to prevent viewing adjacent development from within the buffer. Planting shall be required equivalent to two rows of three-foot high stock of native evergreens at a triangular spacing of fifteen feet, or three rows of gallon containers at a triangular spacing of eight feet. Fencing may be required if needed to block headlights or other sources of light or to provide an immediate effective visual screen;
- C. Provide a plan for control of invasive weeds, and remove existing invasive species;
- D. Provide for a monitoring and maintenance plan for a period of at least five years, except this provision may be waived for single-family residential lots.

14.100.260 Performance Standards – Mitigation Requirements

Activities that adversely affect wetlands and/or wetland buffers shall include mitigation sufficient to achieve no net loss of wetland function and values in accordance with Section 14.100.070 and this section.

- A. Wetland Alterations. Compensatory mitigation shall be provided for all wetland alteration and shall re-establish, create, rehabilitate, enhance, and/or preserve equivalent wetland functions and values. Compensation for wetland alterations shall occur in the following order of preference:
 1. Re-establishing wetlands on upland sites that were formerly wetlands.
 2. Rehabilitating wetlands for the purposes of repairing or restoring natural and/or historic functions.
 3. Creating wetlands on disturbed upland sites such as those consisting primarily of nonnative, invasive plant species.
 4. Enhancing significantly degraded wetlands.
 5. Preserving Category I or II wetlands that are under imminent threat; provided, that preservation shall only be allowed in combination with other forms of mitigation and when the Director determines that the overall mitigation package fully replaces the functions and values lost due to development.
- B. Mitigation Ratios. Compensatory mitigation for wetland alterations shall be based on the wetland category and the type of mitigation activity proposed. The replacement ratio shall be determined according to the ratios provided in the table below; provided, that replacement ratio for preservation shall be determined by the Director on a case-by-case basis. The created, re-established, rehabilitated, or enhanced wetland area shall at a minimum provide a level of function equivalent to the wetland being altered and shall be located in an appropriate landscape setting.

Table 14.100.260. Mitigation Ratios for Western Washington

Wetland Category	Creation	Rehabilitation Only ¹	Re-establishment or Creation (R/C) and Rehabilitation (RH) ¹	Re-establishment or Creation (R/C) and Enhancement (E) ¹	Enhancement Only ¹
IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
II (Estuarine)	On a case-by-case basis	4:1 Rehabilitation of an estuarine wetland	On a case-by-case basis	On a case-by-case basis	On a case-by-case basis
II (Interdunal)	2:1 compensation has to be interdunal wetland	4:1 Compensation has to be interdunal wetland	1:1 R/C and 2:1 RH compensation has to be interdunal wetland	Not recommended ²	Not recommended ²
II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
I (forested)	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
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
I (Natural Heritage)	Not recommended ³	6:1 restoration of a Natural Heritage site	R/C not recommended ³	R/C not recommended ³	On a case-by-case basis
I (Coastal Lagoon)	Not recommended ³	6:1 rehabilitation of a coastal lagoon	R/C not recommended ³	R/C not recommended ³	On a case-by-case basis
I (Bog)	Not recommended ³	6:1 rehabilitation of a bog	R/C not recommended ³	R/C not recommended ³	On a case-by-case basis
I (Estuarine)	On a case-by-case basis	6:1 rehabilitation of an estuarine wetland	On a case-by-case basis	On a case-by-case basis	On a case-by-case basis

1. These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement (see Appendix H for further discussion).
2. Due to the dynamic nature of interdunal systems, enhancement is not considered an ecologically appropriate action.
3. Natural Heritage sites, coastal lagoons, and bogs are considered irreplaceable wetlands because they perform some functions that cannot be replaced through compensatory mitigation. Impacts to such wetlands would therefore result in a net loss of some functions no matter what kind of compensation is proposed.

C. Compensation for wetland buffer impacts shall occur at a minimum one-to-one ratio. Compensatory mitigation for buffer impacts shall include enhancement of degraded buffers by planting native species, removing structures and impervious surfaces within buffers, and other measures.

- D. Mitigation banks shall not be subject to the replacement ratios outlined in the replacement ratio table above, but shall be determined as part of the mitigation banking agreement and certification process.
- E. Buffers. Replacement wetlands established pursuant to these mitigation provisions shall have adequate buffers to ensure their protection and sustainability. The buffer shall be based on the category and land-use intensity in Section 14.100.250C.1; provided, that the Director shall have the authority to approve a smaller buffer when existing site constraints (such as a road) prohibit attainment of the standard buffer.
- F. Adjustment of Ratios. The Director shall have the authority to adjust these ratios when a combination of mitigation approaches is proposed. In such cases, the area of altered wetland shall be replaced at a one-to-one ratio through re-establishment or creation, and the remainder of the area needed to meet the ratio can be replaced by enhancement at a two-to-one ratio. For example, impacts to one acre of a Category II wetland requiring a three-to-one ratio for creation can be compensated by creating one acre and enhancing four acres (instead of the additional two acres of creation that would otherwise be required).
- G. Location. Compensatory mitigation shall be provided on-site or off-site in the location that will provide the greatest ecological benefit and have the greatest likelihood of success; provided, that mitigation occurs as close as possible to the impact area and within the same watershed sub-basin as the permitted alteration. Compensatory mitigation shall use a landscape-based approach sufficient to maintain the functions and values of critical areas. A permittee may be required to provide compensatory mitigation through an aquatic resource restoration, establishment, enhancement and/or preservation activity.
- H. Protection. All mitigation areas whether on- or off-site shall be permanently protected and managed to prevent degradation and ensure protection of critical area functions and values into perpetuity. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with Section 14.100.080 and 14.100.081.
- I. Timing. Mitigation activities shall be timed to occur in the appropriate season based on weather and moisture conditions and shall occur as soon as possible after the permitted alteration.

14.100.261 Performance Standards - Wetland Mitigation Plan

In addition to meeting the requirements of Section 14.100.072, a compensatory mitigation plan for wetland and wetland buffer impacts shall meet the following requirements:

- A. The plan shall be based on applicable portions of the Washington State Department of Ecology's Wetland Mitigation in Washington State Part 2: Developing Mitigation Plans, 2006, or other appropriate guidance document that is consistent with best available science.
- B. The plan shall contain sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. Specific information to be provided in the plan shall include:
 - 1. The rationale for site selection;

2. General description and scaled drawings of the activities proposed including, but not limited to, clearing, grading/excavation, drainage alterations, planting, invasive plant management, installation of habitat structures, irrigation, and other site treatments associated with the development activities and proposed mitigation action(s);
 3. A description of the ecological functions and values that the proposed alteration will affect and the specific ecological functions and values the proposed mitigation area(s) shall provide, together with a description of required or recommended mitigation ratios and an assessment of factors that may affect the success of the mitigation program;
 4. Overall goals of the plan, including wetland function, value, and acreage;
 5. Description of baseline (existing) site conditions including topography, vegetation, soils, hydrology, habitat features (i.e., snags), surrounding land use, and other pertinent information;
 6. Field data confirming the presence of adequate hydrology (surface and/or groundwater) to support existing and compensatory wetland area(s);
 7. Nature of mitigation activities, including area of restored, created, enhanced and preserved wetland, by wetland type;
 8. Detailed grading and planting plans showing proposed post-construction topography; general hydrologic patterns; spacing and distribution of plant species, size and type of proposed planting stock, watering or irrigation plans, and other pertinent information;
 9. A description of site treatment measures including invasive species removal, use of mulch and fertilizer, placement of erosion and sediment control devices, and best management practices that will be used to protect existing wetlands and desirable vegetation;
 10. A demonstration that the site will have adequate buffers sufficient to protect the wetland functions into perpetuity.
- C. Specific measurable performance standards that the proposed mitigation action(s) shall achieve together with a description of how the mitigation action(s) will be evaluated and monitored to determine if the performance standards are being met and identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates that project performance standards are not being met. The performance standards shall be tied to and directly related to the mitigation goals and objectives.
- D. Cost estimates for the installation of the mitigation program, monitoring, and potential corrective actions if project performance standards are not being met.

14.100.262 Performance Standards - Wetland Mitigation Monitoring

- A. All compensatory mitigation projects shall be monitored in accordance with the Monitoring Program developed in accordance with Section 14.100.072D for a period necessary to establish that performance standards have been met, but generally not for a period less than five years. Reports shall be submitted annually for the first three years following construction and at the completion of years five, seven, and ten if applicable to document

milestones, successes, problems, and contingency actions of the compensatory mitigation. The Director shall have the authority to modify or extend the monitoring period and require additional monitoring reports for up to ten years when any of the following conditions apply:

1. The project does not meet the performance standards identified in the mitigation plan.
 2. The project does not provide adequate replacement for the functions and values of the impacted critical area.
 3. The project involves establishment of forested plant communities, which require longer time for establishment.
- B. Mitigation monitoring reports shall include information sufficient to document and assess the degree of mitigation success or failure as defined by the performance standards contained in the approved mitigation plan. Information to be provided in annual monitoring reports shall include the following:
1. Number and location of vegetation sample plots used to document compliance with performance standards;
 2. Measurements of the percent survival of planted material, plant cover, stem density, presence of invasive species, or other attributes;
 3. For sites that involve wetland creation, re-establishment or rehabilitation, hydrologic observations of soil saturation/inundation as needed to demonstrate that a site meets the wetland hydrology criterion;
 4. Representative photographs of the site;
 5. A written summary of overall site conditions and recommendations for maintenance actions if needed;
 6. Other information that the Director deems necessary to ensure the success of the site.

14.100.263 Wetland Mitigation Banks

- A. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:
1. The bank is certified under Chapter 173-700 WAC;
 2. The Director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
 3. The proposed use of credits is consistent with the terms and conditions of the bank's certification.
- B. Replacement ratios for projects using bank credits shall be consistent with replacement 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.

14.100.300 Frequently Flooded Areas - Designation

- A. All areas within the city meeting the frequently flooded designation criteria in the Identification and Delineation Manual, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this Chapter. The flood areas are classified as either one of two types:
 - 1. Floodway: Floodways are defined as the channel of a stream and adjacent land areas which are required to carry and discharge the flood water or flood flows of any river or stream associated with a regulatory flood.
 - 2. Floodway Fringe: The flood fringe is defined as that land area which is outside a stream's floodway, but is subject to periodic inundation due to flooding, associated with a regulatory flood.
- B. These flood areas have been accurately delineated based on hydrologic and hydraulic studies completed by the Federal Emergency Management Agency in 1984, and as subsequently revised and amended.

14.100.310 Mapping of Frequently Flooded Areas

- A. The approximate location and extent of critical aquifer recharge areas are shown on the following adopted critical areas map: City of Aberdeen Critical Area Map 2: Frequently Flooded Areas. This map is based on data obtained from:
 - 1. Federal Emergency Management Agency Flood Insurance rate Maps, July 1984, or as later revised.
- B. These maps are to be used as a guide for the city, project applicants, and/or property owners and may be continuously updated as new critical areas are identified. They are a reference and do not provide a final critical area designation.

14.100.320 Frequently Flooded Areas - Regulation

"Frequently flooded areas" are those same areas regulated by the Flood Damage Prevention Ordinance, Chapter 15.52 of the Aberdeen Municipal Code, and are protected through regulations provided in that Chapter.

14.100.400 Geologically Hazardous Areas - Designation

- A. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. The following regulations, in combination with the performance standards for development, will guide development in these critical areas. The purpose of these regulations is to maintain the natural integrity of hazardous areas and their buffers in order to protect adjacent lands from the impacts of landslides, mudslides, subsidence, excessive erosion and seismic events, and to safeguard the public from these threats to life or property. Geologically hazardous areas: are designated as those areas that are susceptible to one of more of the following types of hazards:
1. Erosion hazard;
 2. Landslide hazard;
 3. Seismic hazard;
 4. Other geological events including tsunamis, mass wasting, debris flows, rock falls, and differential settlement.
- B. Erosion Hazard Areas. Erosion hazard areas are those areas of Aberdeen which:
1. Contain soils or soils complexes identified by the U.S. Department of Agriculture's Natural Resource Conservation Service or the Soil Survey for Grays Harbor County as having "moderate to severe, "severe" or "very severe" erosion hazard potential; or
 2. Are impacted by shore land and/or stream bank erosion; or
 3. Areas with a slope greater than fifteen percent.
- C. Landslide Hazard Areas. Landslide hazard areas are those areas susceptible to landslides because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other physical factors. Potential landslide hazard areas exhibit one or more of the following characteristics:
1. Sensitive Sloped Areas. Slopes exceeding thirty-five percent with a vertical relief of ten or more feet except areas composed of competent rock and properly engineered slopes designed and approved by a geotechnical engineer licensed in the state of Washington and experienced with the site;
 2. Areas mapped by the Washington state Department of Ecology (Coastal Zone Atlas) or the Washington State Department of Natural Resources (slope stability mapping) as unstable ("U"), unstable old slides ("UOS"), or unstable recent slides ("URS");
 3. Areas designated by the U.S. Department of Agriculture's Natural Resource Conservation Service as having "severe" limitation for building site development;
 4. Areas that have shown evidence of historic failure or instability, including but not limited to back-rotated benches on slopes; areas with structures that exhibit structural damage such as settling and racking of building foundations; and areas that have toppling, leaning, or bowed trees caused by ground surface movement;

5. Slopes greater than fifteen percent that have a relatively permeable geologic unit overlying a relatively impermeable unit and having springs or groundwater seepage;
 6. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action;
 7. Areas located in a canyon or active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
 8. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Washington State Department of Natural Resources;
 9. Areas that are at risk of mass wasting due to seismic forces; and
 10. Slopes having gradients steeper than eighty percent subject to rock fall during seismic shaking.
- D. Seismic Hazard Areas. Seismic hazard areas are those areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, soil liquefaction or surface faulting including:
1. Areas subject to surface faulting during a seismic event;
 2. Areas with underlying deposits indicative of a risk of liquefaction during a seismic event, including those areas mapped as “moderate”, “moderate to high” and “high” by the Washington State Department of Natural Resources;
 3. Areas subject to slope failure during a seismic event;
 4. Areas that are at risk of mass wasting due to seismic forces.

Seismic hazards shall be as identified in Washington State Department of Natural Resources seismic hazard and liquefaction susceptibility maps for Western Washington and other geologic resources.

- E. Tsunami Hazard Areas. Tsunami hazard areas are coastal areas susceptible to flooding and inundation as the result of excessive wave action derived from seismic or other geologic events, and include those areas mapped within the Tsunami Hazard Map of the Southern Washington Coasts by the Washington Department of Natural Resources.
- F. Other Hazard Areas. Geologically hazardous areas shall also include areas determined by the Director those areas subject to severe risk of damage as a result of other geological events including mass wasting, debris flows, rock falls and differential settlement.

14.100.410 Mapping of Geologically Hazardous Areas

- A. The approximate location and extent of geologically hazardous areas containing known or suspected risk are shown on the following adopted Critical Areas Maps: City of Aberdeen Critical Area Map 5: Geologic Hazard Areas: Landslide, Liquefaction and Seismic; and City

of Aberdeen Critical Area Map 6: Geologic Hazard Areas: Erosion and Steep Slopes. The hazard areas outlined on these maps are based on the following data:

1. USGS ten meter Digital Elevation Model (slope);
 2. USDA Soil Survey of Grays Harbor County Area, Washington;
 3. Washington State Department of Natural Resources Liquefaction Susceptibility Map of Grays Harbor County, Washington;
 4. Washington State Department of Natural Resources Tsunami Hazard Map of the Southern Washington Coast;
 5. Washington State Department of Natural Resources Site Class Map of Grays Harbor County, Washington; and
 6. Grays Harbor County Landslide Hazards.
- B. These maps are to be used as a guide for the city, project applicants and/or property owners, and may be updated as new information becomes available. They are a reference and do not provide a final critical area designation.

14.100.420 Activities Allowed in Geologically Hazardous Areas

- A. The following activities are allowed in geologically hazardous areas pursuant to Section 14.100.050, require notification to the Director, but do not require review or submission of a critical area report provided that the activity will not increase the risk of the hazard:
1. Extreme Slope Hazard Areas. Installation of fences may be allowed within an extreme slope hazard area.
 2. Seismic, Tsunami and Other Hazard Areas.
 - a. Additions to existing residences that are two hundred fifty square feet or less, provided the additions conform with building and construction codes adopted by the city ; and
 - b. Installation of fences.
- B. Except as otherwise provided for in this Chapter, all other activities, with the exception of those defined in Section 14.100.420 and 14.100.050.A, 14.100.050.B, and 14.100.050.C, may be permitted by the Director consistent with the review process described in this Chapter and the submittal of a critical area report.

14.100.430 Critical Area Report – Additional Requirements for Geologically Hazardous Areas

- A. Prepared by a Qualified Professional. A critical areas report for a geologically hazardous area shall be prepared by a geotechnical engineer or geologist, licensed in the state of Washington, with experience analyzing geologic, hydrologic, and ground water flow systems; or by a geologist who earns his or her livelihood from the field of geology and/or

geotechnical analysis, with experience analyzing geologic, hydrologic and ground water flow systems, who has experience preparing reports for the relevant type of hazard. Preparation of these reports by a state of Washington registered geologist is preferred.

B. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for geologically hazardous areas:

1. The project area of the proposed activity; and
2. All geologically hazardous areas within two hundred feet of the project area or that have potential to be affected by the proposal.

C. Geotechnical Assessment. A critical area report for a geologically hazardous area shall contain an assessment of geological hazards including the following site- and proposal-related information at a minimum:

1. Site and construction plans. The report shall include a copy of the site plans for the proposal showing:
 - a. The type and extent of geologic hazard areas, and any other critical areas, and buffers on, adjacent to, within two hundred feet of, or that are likely to impact the proposal;
 - b. Proposed development, including the location of existing and proposed structures, fill, storage of materials, and drainage facilities, with dimensions indicating distances to the floodplain;
 - c. The topography, in two-foot contours, of the project area and all hazard areas addressed in the report; and
 - d. Clearing limits.
2. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics and engineering properties of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted taxonomic classification systems in use in the region. The assessment shall include, but not be limited to:
 - a. A description of the surface and subsurface geology, hydrology, soils, and vegetation found in the project area and in all hazard areas addressed in the report;
 - b. A detailed overview of the field investigations, published data and references; data and conclusions from past assessments of the site; and site specific measurements, test, investigations, or studies that support the identification of geologically hazardous areas; and
 - c. A description of the vulnerability of the site to seismic and other geologic events.
3. Analysis of proposal. The report shall contain a geotechnical analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its

potential impact upon the hazard area, the subject property and affected adjacent properties; and

4. Minimum buffer and building setback. The report shall make a recommendation for the minimum no-disturbance buffer and minimum building setback from any geologic hazard based upon the geotechnical analysis.
- D. Incorporation of previous study. 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 incorporated into the required critical area report. The applicant shall submit a geotechnical assessment detailing any changed environmental conditions associated with the site.
- E. Mitigation of long-term impacts. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains or reduces the pre-existing level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected lifespan of the activity or occupation). Proposed mitigation techniques shall be considered to provide long-term hazard reduction only if they do not require regular maintenance or other actions to maintain their function. Mitigation may also be required to avoid any increase in risk above the pre-existing conditions following abandonment of the activity.

14.100.440 Critical Area Report – Additional Requirements for Specific Hazards

In addition to the general critical area report requirements of Section 14.100.060, critical area reports for geologically hazardous areas must 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. Erosion, landslide and extreme slope hazard areas. In addition to the basic critical area report requirements, a critical area report for an erosion hazard or landslide hazard area shall include the following information at a minimum:
1. Site plan. The report shall include a copy of the site plan for the proposal showing:
 - a. The height of slope, slope gradient, and cross section of the project area;
 - b. The location of springs, seeps, or other surface expressions of ground water on or within two hundred feet of the project area or that have potential to be affected by the proposal; and
 - c. The location and description of surface water runoff;
 2. Geotechnical analysis. The geotechnical analysis shall specifically include:
 - a. A description of the extent and type of vegetative cover;
 - b. An estimate of load capacity including surface and ground water conditions, public and private sewage disposal systems, fills and excavations and all structural development;

- c. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
 - d. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a one hundred year storm event;
 - e. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties.
 - f. A study of slope stability including an analysis of proposed angles of cut and fill and site grading;
 - g. Recommendations for building limitations, structural foundations, and an estimate of foundation settlement;
 - h. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;
3. Hazards Analysis. The hazards analysis component of the critical areas report shall specifically include:
- a. A description of the extent and type of vegetative cover;
 - b. A description of subsurface conditions based on data from site-specific explorations;
 - c. Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;
 - d. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
 - e. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a one hundred-year storm event;
 - f. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties.
 - g. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
 - h. Recommendations for building siting limitations; and
 - i. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;
4. Geotechnical Engineering Report. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by a licensed engineer that presents engineering recommendations for the following:
- a. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities

- for bearing and lateral loads, installation considerations, and estimates of settlement performance;
- b. Recommendations for drainage and subdrainage improvements;
 - c. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and
 - d. Mitigation of adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate;
5. Erosion and sediment control plan. For any development proposal on a site containing an erosion hazard area, an erosion and sediment control plan shall be required. The erosion and sediment control plan shall be prepared in compliance with requirements set forth in the city's Construction Standards;
 6. Drainage plan. The report shall include a drainage plan for the collection, transport, treatment, discharge and/or recycle of water. The drainage plan should consider on-site septic system disposal volumes where the additional volume will affect the erosion or landslide hazard area.
 7. Mitigation plans. Hazard and environmental mitigation plans for erosion and landslide hazard areas shall include the location and methods of drainage, surface water management, locations and methods of erosion control, a vegetation management and/or replanting plan and/or other means for maintaining long term soil stability.
 8. Monitoring surface waters. If the Director determines that there is a significant risk of damage to downstream receiving waters due to potential erosion from the site, based on the size of the project, the proximity to the receiving waters, or the sensitivity of the receiving waters, the critical area report shall include a plan to monitor the surface water discharge from the site. The monitoring plan shall include a recommended schedule for submitting monitoring reports to the city.
- B. Seismic Hazard Areas. A Critical Area Report will be required for a proposal within a seismic hazard area if the city deems a report is necessary to determine that the proposal conforms with applicable building and construction codes, especially as these apply to protection of structures from seismic events. In addition to the basic report requirements, a critical area report for a seismic hazard area shall also meet the following requirements:
1. The site map shall show all known and mapped faults within two hundred feet of the project area or that have potential to be affected by the proposal.
 2. The hazards analysis shall include a complete discussion of the potential impacts of seismic activity on the site (for example, forces generated and fault displacement).
 3. A geotechnical engineering report shall evaluate the physical properties of the subsurface soils, especially the thickness of unconsolidated deposits and their liquefaction potential. If it is determined that the site is subject to liquefaction, mitigation measures appropriate to the scale of the development shall be recommended and implemented.

- C. Tsunami Hazard Areas. In addition to the basic report requirements, a critical area report for a tsunami hazard area shall also meet the following requirements:
1. Site Plan. The site plan shall show all areas within two hundred feet of the project area that have potential to be inundated by wave action derived from a seismic event;
 2. Hazards Analysis. The hazards analysis shall include a complete discussion of the potential impacts of the tsunami hazard on the site; and
 3. Emergency Management Plan. The emergency management plan shall include plans for emergency building exit routes, site evacuation routes, emergency training, notification of local emergency management officials, and an emergency warning system.
- D. Other Geologically Hazardous Areas. In addition to the basic report requirements, the Director may require additional information to be included in the critical area report when determined to be necessary to the review the proposed activity and the subject hazard. Additional information that may be required, includes, but is not limited to:
1. Site Plan. The site plan shall show all hazard areas located within two hundred feet of the project area or that have potential to be affected by the proposal; and
 2. Geotechnical Analysis. The geotechnical analysis shall include a complete discussion of the potential impacts of the hazard on the project area and of the proposal on the hazard.

14.100.450 Performance Standards – General Requirements

- A. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:
1. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
 2. Will not adversely impact other critical areas;
 3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions; and
 4. Are determined to be safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.
- B. Critical facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative.
- C. In addition to the provisions of this Chapter, alterations of geologically hazardous areas or associated buffers must conform to city Construction Standards and building codes.
- D. Seismic hazard areas standards. Development may be allowed in seismic hazard areas when all of the following apply:

1. If evaluation of site-specific subsurface conditions by a qualified professional demonstrates that the proposed development site is not subject to the conditions indicating seismic risk, the provisions of this subsection shall not apply.
2. If a site is subject to seismic risk, the applicant shall implement appropriate engineering design based on analysis by a qualified professional of the best available engineering and geological practices that either eliminates or minimizes the risk of structural damage or injury resulting from seismically induced settlement or soil liquefaction including compliance with the following criteria:
 - a. Subdivision within a seismic hazard areas shall assure that each resulting lot has sufficient buildable area outside of the hazard area or that appropriate limitations on building and reference to appropriate standards are incorporated into subdivision approval and may be placed as restrictions on the face of the plat;
 - b. Structures in seismic hazard areas shall conform to applicable analysis and design criteria and provisions of building and construction codes as currently adopted by the city. The city may require the submission of a geotechnical analysis to determine that the proposal conforms with applicable building and construction codes.
 - c. Public roads, bridges, utilities and trails shall be allowed when there are no feasible alternative locations and geotechnical analysis and design are provided that ensure the roadway, bridge and utility structures and facilities will not be susceptible to damage from seismic induced ground deformation. Mitigation measures shall be designed in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual or other appropriate document(s) adopted for use by the city.
 - d. Critical facilities shall not be located in seismic hazard areas unless mitigation shall be provided which renders the proposed development as a stable as if it were not located within a seismic hazard area.² The Director may waive or reduce engineering study and design requirements for alterations in seismic hazard areas for:
 - i. Mobile homes;
 - ii. Additions or alterations to existing structures that do not increase occupancy or significantly affect the risk of structural damage or injury; and
 - iii. Buildings that are not dwelling units or used as places of employment or public assembly.

E. Tsunami Hazard Areas Standards. Activities on sites containing areas susceptible to inundation due to tsunami hazards shall require an evacuation and emergency management plan. The city may use the performance standards for frequently flooded areas (see Chapter 15.52) as guidance in reviewing new structures proposed in tsunami hazard areas.

14.100.460 Performance Standards – Specific Hazards

A. Erosion and Landslide Hazard Areas. Activities on sites containing erosion or landslide hazards shall meet the following requirements:

1. Buffer Required. A buffer shall be established from all edges of erosion or landslide hazard areas. The size of the buffer shall be determined by the Director to eliminate or minimize the risk of property damage, death or injury resulting from erosion and landslides caused in whole or part by the development, based upon review of and concurrence with a critical area report prepared by a qualified professional.
 - a. Minimum Buffer. The minimum buffer shall be equal to the height of the slope or fifty feet, whichever is greater.
 - b. Buffer Reduction. The buffer may be reduced to a minimum of ten feet when a qualified professional demonstrates to the Director's satisfaction that the reduction will adequately protect the proposed development, adjacent developments and uses and the subject critical area.
 - c. Increased Buffer. The buffer may be increased where the Director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.
2. Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a geotechnical analysis is submitted and determines that:
 - a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions;
 - b. The development will not decrease slope stability on adjacent properties; and
 - c. Such alterations will not adversely impact other critical areas.
3. Construction Standards. Development within an erosion or landslide hazard area and/or buffer shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this Chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. In addition to those requirements outlined in Section 14.100.450, the basic development Construction Standards within geologically hazardous areas are:
 - a. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the Uniform Building Code.
 - b. Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas.
 - c. Structures and improvements shall minimize alterations to the natural contour of the slope and foundations shall be tiered where possible to conform to existing topography.
 - d. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.

- e. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties.
 - f. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes.
 - g. Development shall be designed to minimize impervious lot coverage.
4. Vegetation shall be Retained. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited;
 5. Seasonal Restriction. Clearing shall be allowed only from May 1 to October 1 of each year provided that the city may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practice permit issued by the city or the Washington State Department of Natural Resources;
 6. Utility Lines and Pipes. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.
 7. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:
 - a. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazards areas downstream from the discharge;
 - b. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or
 - c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope;
 8. Subdivisions. The division of land in erosion and landslide hazard areas and associated buffers is subject to the following:
 - a. Land that is located wholly within an erosion or landslide hazard area or its buffer may not be subdivided. Land that is located partially within an erosion or landslide hazard area or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of, and will not affect, the erosion or landslide hazard or its buffer.

- b. Access roads and utilities may be permitted within the erosion or landslide hazard area and associated buffers if the city determines that no other feasible alternative exists.
- 9. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.
- B. Extreme Slope Hazard Areas. Activities on sites containing extreme slope hazards shall be considered unbuildable. This includes, but is not limited to, construction of buildings, sewage disposal systems and roads. Construction of facilities shall not be permitted in extreme slope hazard areas unless under an exception provided consistent with Section 14.100.051 of this Chapter. If an exception is granted, the provisions of Sections 14.100.450 and 14.100.451A must be satisfied.

14.100.500 Fish and Wildlife Habitat Conservation Areas - Designation

- A. Fish and wildlife habitat conservation areas are those areas identified as being of critical importance to the maintenance of certain fish, wildlife, and/or plant species. These areas are typically identified either by known point locations of specific species (such as a nest or den) or by habitat areas or both. All areas within the city meeting these criteria are hereby designated critical areas and are subject to the provisions of this chapter.
- B. For purposes of this chapter, fish and wildlife habitat conservation areas shall include all of the following:
 - 1. The Washington State Department of Fish and Wildlife priority habitats and species recommendations for species and habitats, for:
 - a. Endangered species listed at WAC 232-12-014;
 - b. Threatened species listed at WAC 232-12-001;
 - c. Sensitive species listed at WAC 232-12-011;
 - 2. Bald eagle habitat pursuant to WAC 232-12-292;
 - 3. Endangered or threatened species listed in accordance with the federal Endangered Species Act together with the areas with which they have a primary association;
 - 4. State natural area preserves and natural resource conservation areas including:
 - a. Department of Natural Resources (DNR) designated Natural Areas Preserves (NAP) and Natural Resource Conservation Areas (NECA);
 - b. Washington Department of Fish and Wildlife (WDFW) designated Wildlife Recreation Areas (WRA);
 - 5. Waters of the state as defined in RCW 77.55.011 and 90.56.010 including shorelines of the state as defined in RCW 90.58.010;

6. Streams shall be designated in accordance with the Washington State Department of Natural Resources (DNR) stream type as provided in WAC 222-16-030 with the following revisions:
 - a. Type S Water. All waters, as inventoried as “shorelines of the state” under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW including periodically inundated areas of their associated wetlands.
 - b. Type F-A Water. Segments of natural waters other than Type S waters, which are within defined channels greater than ten feet in width, as defined by the OHWM and periodically inundated areas of their associated wetlands or within lakes, ponds, or impoundments having a surface area of one-half acre or greater at seasonal low water and which in any case contain fish habitat.
 - c. Type F-B Water. Segments of natural waters other than Type S waters, which are within defined channels less than ten feet in width, as defined by the OHWM, or within lakes, ponds, or impoundments having a surface area of less than one-half acre at seasonal low water and which in any case contain fish habitat.
 - d. Type Np Water. All segments of natural waters within defined channels that are perennial nonfish habitat streams. Perennial streams are waters that do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.
 - e. Type Ns Water. All segments of natural waters within defined channels that are not Type S, F, or Np waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np water. Type Ns waters must be physically connected by an above ground channel system to Type S, F, or Np waters.
 - f. Nonfish habitat streams are those streams that have no known or potential use by anadromous or resident fish based on the stream character, hydrology and gradient; provided, that human-made barriers shall not be considered a limit on fish use except when the Director makes the following findings:
 - i. The human-made barrier is located beneath public infrastructure that is unlikely to be replaced and it is not feasible to remove the barrier without removing the public infrastructure; provided, that the infrastructure is not identified for future modification in the capital facility or other plans of the public agency responsible for the infrastructure, and the facility will not exceed its design life within the foreseeable future;
 - ii. The human-made barrier is located beneath one or more occupied structures and it is not feasible to remove the barrier without removing the structure, and the structure is of a size and condition that removal or substantial remodel is not likely;
 - iii. The human-made barrier is not identified for removal by a public agency or in an Adopted watershed plan.

7. Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat;
 8. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
 9. Areas open to shellfish gathering under applicable health regulations and any "shellfish protection district" that may be established in accordance with Chapter 90.72 RCW.
 10. Kelp and Eelgrass beds and herring and Smelt Spawning Areas.
 11. Areas of Rare Plant Species and High Quality Ecosystems that are identified by the Washington State Department of Natural Resources through the natural heritage Program.
 12. Land useful or essential for preserving connections between habitat blocks and open spaces.
- C. In addition to the species and habitats identified in subsection B of this Section, the city may designate additional species and/or habitats of local importance as follows:
1. In order to nominate an area or a species to the category of locally important, an individual or organization must:
 - a. Demonstrate a need for special consideration based on:
 - i. Declining population;
 - ii. High sensitivity to habitat manipulation; or
 - iii. Demonstrated commercial, recreational, cultural, or other special value;
 - b. Propose relevant management strategies considered effective and within the scope of this chapter; and
 - c. Provide a map showing the species or habitat location(s).
 2. Submitted proposals shall be reviewed by the city and may be forwarded to the state Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.
 3. If the proposal is found to be complete, accurate, and consistent with the purposes and intent of this chapter, the city commission will hold a public hearing to solicit comment. Approved nominations will become designated locally important habitats or species and will be subject to the provisions of this chapter.
 4. Those portions of the hemispheric significant reserve designated by the Western Shorebird Reserve Network lying within city boundaries are designated as habitat of local importance.

14.100.510 Fish and Wildlife Habitat Conservation Areas - Mapping

- A. The approximate location and extent of conservation areas are shown on the city of Aberdeen Critical Area Map 4, as most recently updated, and the following critical area maps hereby adopted:
1. Washington Department of Fish and Wildlife Priority Habitat and Species maps;
 2. Washington State Department of Natural Resources, Official Water Type Reference maps, as amended;
 3. Washington State Department of Natural Resources Puget Sound Intertidal Habitat Inventory maps;
 4. Washington State Department of Natural Resources Shorezone Inventory;
 5. Washington State Department of Natural Resources Natural Heritage Program mapping data;
 6. Washington State Department of Health Annual Inventory of Shellfish Harvest Areas;
 7. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors reports published by the Washington Conservation Commission;
 8. Washington State Department of Natural Resources State Natural Area Preserves and Natural Resource Conservation Area maps; and
 9. Additional data and updates to the information resources listed in this section as determined necessary by the city.
- B. The city of Aberdeen Critical Areas Map is to be used as a guide for the city, project applicants and/or property owners, and may be continuously updated as new critical areas are identified. In some instances, it is a reference and does not provide a final critical area designation.

14.100.520 Critical Area Report – Additional Requirements for Conservation Habitat Areas

In addition to the general critical area report requirements of Section 14.100.060, critical area reports for habitat conservation areas must 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. Preparation by a Qualified Professional. A critical areas report for a habitat conservation area shall be prepared by a qualified professional who is a biologist with experience preparing reports for the relevant type of habitat.
- B. Areas Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for habitat conservation areas:
1. The project area of the proposed activity;

2. All habitat conservation areas and recommended buffers within three hundred feet of the project area; and
 3. All shoreline areas, floodplains, other critical areas, and related buffers within three hundred feet of the project area.
- C. Habitat Assessment. A habitat assessment is an investigation of the project area to evaluate the potential presence or absence of designated critical fish or wildlife species or habitat. A critical area report for a habitat conservation area shall contain an assessment of habitats including the following site- and proposal-related information at a minimum:
1. Detailed description of vegetation on and adjacent to the project area and its associated buffer;
 2. Identification of any species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;
 3. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area;
 4. A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality;
 5. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed land use activity and to be conducted in accordance with Mitigation Sequencing, Section 14.100.071; and
 6. A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs.
- D. Additional Information may be Required. When appropriate due to the type of habitat or species present or the project area conditions, the Director may also require the habitat management plan to include:
1. An evaluation by an independent qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate;
 2. A request for consultation with the Washington Department of Fish and Wildlife or the local Native American Indian Tribe or other appropriate agency; and
 3. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

14.100.530 Fish and Wildlife Habitat Conservation Areas—Water bodies— Performance Standards – Specific Activities

The following activities may be permitted by the Director in water bodies or their buffers provided that: the specified requirements for the activities have been included in the design and implementation of the proposal; the applicant has taken all reasonable measures to avoid adverse effects on water body and water body buffer functions and values; the applicant has provided compensatory mitigation for all adverse impacts to water bodies and their buffers that cannot be avoided; the applicant has demonstrated that the amount and degree of alteration is limited to the minimum needed to accomplish the project purpose; and the activities and uses are not prohibited by any other applicable law. Submittal of a critical area report will not be required for the activities listed in this Section, except as provided below.

- A. Restoration of streams previously piped or channeled into a new or relocation streambed when part of a restoration plan that will result in equal or better habitat and water quality and quantity, and that will not diminish the flow capacity of the stream or other natural stream processes; provided, that the relocation has a state hydraulic project approval and all other applicable permits.
- B. Road, trail, bridge, and right-of-way crossings, provided they meet the following criteria:
 - 1. There is no other feasible alternative route with less impact on critical areas.
 - 2. The crossing minimizes interruption of natural processes such as the downstream movement of wood and gravel and the movement of all fish and wildlife. Bridges are preferred for all stream crossings and should be designed to maintain the existing stream gradient and substrate, provide adequate horizontal clearance on each side of the ordinary high water mark and adequate vertical clearance above ordinary high water mark for animal passage. If a bridge crossing is not feasible, culverts shall be designed according to applicable state and federal guidance criteria for fish passage as identified in Fish Passage Design at Road Culverts, WDFW March 1999, and/or the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000 (and subsequent revisions), and in accordance with a state hydraulic project approval. The applicant or property owner shall maintain fish passage through the bridge or culvert.
 - 3. The city may require that existing culverts be removed, repaired, or modified as a condition of approval if the culvert is detrimental to fish habitat or water quality, and a feasible alternative exists.
 - 4. Crossings shall be limited to the minimum width necessary. Common crossings are the preferred approach where multiple properties can be accessed by one crossing.
 - 5. Access to private development sites may be permitted to cross streams, if there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW. Exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.

- C. Passive outdoor recreational or educational activities which do not significantly affect the function of the water body or regulated buffer (including wildlife management or viewing structures, outdoor scientific or interpretive facilities, trails, hunting blinds, etc.) and meet the following criteria:
1. Trails shall not exceed four feet in width and shall be surfaced with gravel or pervious material, including boardwalk.
 2. The trail or facility shall be located in the outer fifty percent of the buffer area unless a location closer to the water body edge is required for interpretive purposes.
 3. The trail or facility shall be constructed and maintained in manner that minimizes disturbance of the water body or buffer.
- D. Utility lines and facilities providing local delivery service, not including facilities such as electrical substations, water and sewage pumping stations, water storage tanks, petroleum products pipelines and transformers or other facilities containing hazardous substances, may cross water bodies or be located in buffers, if the following criteria are met:
1. There is no reasonable location or route that does not cross the water body or outside the buffer based on analysis of system needs, available technology and alternative routes. Location within a buffer shall be preferred over a location within a water body. Crossings shall be contained within the footprint of an existing road or utility crossing where possible.
 2. Impacts to fish and wildlife habitat shall be avoided to the maximum extent possible and mitigated when avoidance is not feasible.
 3. Utilities that cross water bodies shall be as close to perpendicular to the channel as possible to minimize disturbance. Boring under the water body may be required.
 4. If not a crossing, the utility line shall be located as far from the water body as possible.
 5. The utility installation shall maintain the existing stream gradient and substrate.
 6. Clearing, grading, and excavation activities shall be limited to the minimum necessary to install the utility line, and the area is restored following utility installation.
- E. Stormwater conveyance or discharge facilities such as infiltration systems dispersion trenches, level spreaders, and outfalls may be permitted in a fish and wildlife habitat conservation area buffer on a case-by-case basis when all of the following are met:
1. Due to topographic or other physical constraints there are no feasible locations for these facilities outside the buffer.
 2. The discharge is located as far from the ordinary high water mark as possible and in a manner that minimizes disturbance of soils and vegetation.
 3. The discharge outlet is in an appropriate location and is designed to prevent erosion and promote infiltration.

4. The discharge meets stormwater flow and water quality standard as provided in Chapter 13.68, Stormwater Management, of the Municipal Code.
- F. Stream bank stabilization, shoreline protection, and public or private launching ramps may be permitted subject to all of the following standards:
1. Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs;
 2. Adverse impact to fish or wildlife habitat conservation areas, specifically juvenile and adult fish migration corridors, or associated wetlands will be mitigated;
 3. Nonstructural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient;
 4. Stabilization is achieved through bioengineering or soft armoring techniques in accordance with an applicable hydraulic project approval issued by the Washington Department of Fish and Wildlife;
 5. Hard bank armoring may occur only when the property contains an existing permanent structure(s) that is in danger from shoreline erosion caused by riverine processes and not erosion caused by upland conditions, such as the alteration of natural vegetation or drainage, and the armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply.
- G. New public flood protection measures and expansion of existing measures may be permitted; provided, that bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection, and shall be subject to requirement of the shoreline master program, where applicable, hydraulic project approval and other permits.
- H. New docks shall be permitted only for public access, as an accessory to water-dependent uses or associated with a single-family residence; provided, that it is designed and used only as a facility for access to watercraft.
1. To limit the effects on ecological functions, the number of docks should be limited and new subdivisions should employ shared moorage whenever feasible. Docks on shorelines of the state must comply with policies and regulations of the city of Aberdeen shoreline master program.
 2. Docks shall be located and designed to minimize adverse effects on ecological processes through location where they will interfere with fluvial and limnal processes including gradient and substrate; recruitment of woody debris; and fish habitat, including that related to anadromous fish.
 3. Docks shall minimize reduction in ambient light level by limiting width to the minimum necessary and shall not exceed four feet in width, except where specific information on use patterns justifies a greater width. Materials that will allow light to pass through the deck may be required including grating on walkways or gangplanks in nearshore areas.

4. Approaches shall utilize piers or other structures to span the entire upper foreshore to the point of intersection with stable upland soils and shall be designed to avoid interfering with stream processes.
 5. Pile spacing shall be the maximum feasible to minimize shading and avoid a wall effect that would block or baffle currents, sediment movement or movement of aquatic life forms, or result in structure damage from driftwood impact or entrapment.
 6. Docks should be constructed of materials that will not adversely affect water quality or aquatic plants and animals in the long term.
- I. Launch ramps may be permitted for access to the water for the public or for residents of a development or for water dependent use subject to the following criteria:
1. Launch ramps shall be located and designed to minimize adverse effects on fluvial and limnal processes including stream gradient and substrate; recruitment of woody debris; and fish habitat, including that related to anadromous fish.
 2. Ramps shall be placed and maintained near flush with the bank slope. Preferred ramp designs, in order of priority, are:
 - a. Open grid designs with minimum coverage of beach substrate;
 - b. Seasonal ramps that can be removed and stored upland;
 - c. Structures with segmented pads and flexible connections that leave space for natural shoreline substrate and can adapt to changes in shoreline profile.
- J. In-stream structures, such as, but not limited to, high flow bypasses, dams, and weirs, other than those regulated exclusively by the Federal Energy Regulatory Commission (FERC) shall be permitted only when the multiple public benefits are provided and ecological impacts are fully mitigated. Dams on shorelines of the state shall be regulated in accordance with the shoreline master program. Dams on other streams shall require a variance as provided by Section 14.100.053.
1. In-stream facilities locations shall avoid areas of high habitat value for aquatic organisms, specifically anadromous fish.
 2. In-stream facilities shall be designed to produce the least feasible effect on fluvial processes and shall minimize change in gradient.
 3. n-stream facilities shall provide mitigation of all impacts on aquatic species and habitat.
 4. In-stream facilities shall provide fish passage, in accordance with Chapter 77.57 RCW.
 5. A construction bond for one hundred fifty percent of the cost of the structure and all mitigation measures shall be filed prior to construction and a maintenance agreement shall specify responsibility for maintenance, shall incorporate the maintenance schedule specified by the design engineer, shall require annual inspections by a civil engineer licensed in the state of Washington and shall stipulate abandonment procedures which shall include, where appropriate, provisions for site restoration.

- K. Facilities permitted as shoreline dependent or shoreline oriented uses in accordance with the city shoreline master program may be located in water bodies and buffers; provided, that only those facilities that are water dependent or water oriented and facilities for necessary access may be located in water bodies and buffers; and provided, that the facility is located, designed, constructed and operated to minimize and, where possible, avoid critical area disturbance to the maximum extent feasible. The Director may require the submittal of a critical area report for facilities that are not associated with residential uses.
- L. Clearing and grading, when allowed as part of an authorized use or activity or as otherwise allowed in these standards, may be permitted; provided, that the following shall apply:
 - 1. Grading is allowed only during the designated dry season, which is typically regarded as May 1st to October 1st of each year; provided, that the city may extend or shorten the designated dry season on a case-by-case basis, based on actual weather conditions.
 - 2. Appropriate erosion and sediment control measures shall be used at all times. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, disturbed topsoil shall be redistributed to other areas of the site.
 - 3. The moisture-holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.
- M. Repairs to Existing On-Site Sewage Systems. Repairs to failing on-site sewage systems associated with an existing structure shall be accomplished by utilizing one of the following methods that result in the least impact:
 - 1. Connection to an available public sanitary sewer system;
 - 2. Replacement with a new on-site sewage system located in a portion of the site that has already been disturbed by development and is located landward as far as possible, provided the proposed sewage system is in compliance with Grays Harbor County Environmental Health Department; or
 - 3. Repair to the existing on-site septic system.
- N. Activities in water bodies or water body buffers not expressly allowed by Section 14.100.050, or expressly allowed in Section 14,100.530.A through -M shall require review by the Director and shall require submittal of a critical area report. The Director may modify critical area report requirements according to Section 14.100.061.

14.100.540 Performance Standards – General Requirements

- A. Alterations. A habitat conservation area may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the quantitative and qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this Chapter.
- B. Non-indigenous Species. 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.

- C. Mitigation and Contiguous Corridors. Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.
- D. Approvals of Activities. The Director shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:
1. Establishment of buffer zones;
 2. Preservation of critically important vegetation and/or habitat features such as snags and downed wood;
 3. Limitation of access to the habitat area, including fencing to deter unauthorized access;
 4. Seasonal restriction of construction activities;
 5. Establishment of a duration and timetable for periodic review of mitigation activities; and
 6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.
- E. Mitigation and Equivalent or Greater Biological Functions. Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.
- F. Approvals and the Best Available Science. Any approval of alterations or impacts to a habitat conservation area shall be supported by the best available science.
- G. Buffers.
1. Establishment of Buffers. The Director shall require the establishment of buffer areas for activities adjacent to habitat conservation areas when needed to protect habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby and shall be consistent with the management recommendations issued by the Washington Department of Fish and Wildlife. Habitat conservation areas and their buffers shall be preserved in perpetuity through the use of native growth protection areas and critical area tracts in accordance with Section 14.100.081.
 2. Seasonal Restrictions. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.

3. In order to maintain effective buffer conditions and functions, a vegetation management plan shall be required for all buffer areas established to include:
 - a. Maintaining adequate cover of native vegetation including trees and understory; if existing tree cover is less than a relative density of twenty, planting shall be required consisting of seedlings at a density of three hundred stems per acre or the equivalent;
 - b. Provide a dense screen of native evergreen trees at the perimeter of the buffer. If existing vegetation is not sufficient to prevent viewing adjacent development from within the buffer, planting shall be required equivalent to two rows of three-foot high stock of native evergreens at a triangular spacing of fifteen feet or three rows of gallon containers at a triangular spacing of eight feet. Fencing may be required if needed to block headlights or other sources of light or to provide an immediate effective visual screen;
 - c. Provide a plan for control of invasive weeds, and remove existing invasive species;
 - d. Provide for a monitoring and maintenance plan for a period of at least five years, except this provision may be waived for single-family residential lots.

14.100.541 Performance Standards – Subdivisions

The subdivision and short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the following:

- A. Land that is located wholly within a habitat conservation area or its buffer may not be subdivided.
- B. Land that is located partially within a habitat conservation area or its buffer may be divided provided that the developable portion of each new lot and its access is located outside of the habitat conservation area or its buffer and meets the minimum lot size requirements of Zoning Code Title 17.
- C. Access roads and utilities serving the proposed may be permitted within the habitat conservation area and associated buffers only if the city determines that no other feasible alternative exists and when consistent with this Chapter.

14.100.542 Performance Standards – Specific Habitats

- A. Endangered, Threatened, and Sensitive Species.
 1. No development shall be allowed within a habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association, except that which is provided for by a management plan established by the Washington Department of Fish and Wildlife or applicable state or federal agency.
 2. Whenever activities are proposed adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and

approved by the city. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife for animal species, the Washington State Department of Natural Resources for plant species, and other appropriate federal or state agencies.

3. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). Whenever activities are proposed adjacent to a verified nest territory or communal roost, a habitat management plan shall be developed by a qualified professional. Activities are adjacent to bald eagle sites when they are within eight hundred feet or within one half mile 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 in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:
 - a. Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;
 - b. An alternative alignment or location for the activity is not feasible;
 - c. The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas;
 - d. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report, and
 - e. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved critical area report.
2. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.
3. Fills, when authorized by the [locally adopted shoreline management program], shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

- #### C. Wetland Habitats.
- All proposed activities within or adjacent to habitat conservation areas containing wetlands shall conform to the wetland development performance standards set forth in Sections 14.100.200 through 14.100.263. If non-wetlands habitat and wetlands are present at the same location, the provisions of Sections 14.100.500 through 14.100.570 or

Sections 14.100.200 through 14.100.263, whichever provides greater protection to the habitat, apply.

14.100.550 Fish and Wildlife Habitat Conservation Areas – Water Bodies - Buffers

The Director shall have the authority to require buffers from the edges of all streams in accordance with the following:

- A. Buffers shall be established for activities adjacent to as necessary to protect the integrity, functions and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat and the type and intensity of the adjacent human use or activity.
- B. The buffer widths required by this section are based on scientific studies of the conditions necessary to sustain ecological functions and values to support anadromous and resident fish and presume the existence of a dense native vegetation community in the buffer zone adequate to protect the stream functions and values at the time of the proposed activity. Buffers shall be measured as follows:
 1. Type S Water. All waters, as inventoried as “shorelines of the state” under the jurisdiction of the Shoreline Management Act, except associated wetlands, which shall be regulated in accordance with Sections 14.100.200 through 14.100.263—One hundred fifty feet.
 2. Type F-A Water. Segments of natural waters other than Type S waters, which are greater than ten feet in width—One hundred fifty feet.
 3. Type F-B Water. Segments of natural waters other than Type S waters, which are less than ten feet in width—One hundred feet.
 4. Type Np Water. Segments of natural waters that are perennial nonfish habitat streams—Seventy-five feet.
 5. Type Ns Water. Segments of natural waters within defined channels that are seasonal, nonfish habitat streams—Fifty feet.
 6. Nonfish-bearing streams in existing subdivisions:
 - a. Where streams have been placed in separate tracts, buffers will be provided by the tract, provided a minimum dimension of twenty-five feet from the edge of the stream is provided;
 - b. Where streams have not been placed in separate tracts, or if a minimum dimension of twenty-five feet from the edge of the stream is not provided, buffers will meet the dimensional requirements in subsection B.4 of this section, unless existing structures are located within the buffer. In that case, the following provisions shall apply:
 - i. An inner riparian buffer shall be provided with a dense community of native trees, shrubs, and groundcover. The dimension of this buffer shall be a minimum of fifteen feet, and may be expanded if sufficient clearance is available between the stream and existing primary structures;

- ii. An outer riparian buffer may be provided to extend within ten feet of an existing primary structure. Within the outer buffer, a maximum of twenty-five percent of the zone may be used as grass turf, with the balance a dense community of native trees, shrubs, and groundcover.
- C. Buffer Measurement. The buffer shall be measured landward horizontally on both sides of the water body from the ordinary high water mark as identified in the field perpendicular to the alignment of the stream or lake/pond bank. The required buffer shall be extended to include any adjacent regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not be extended across roads or other lawfully established structures or hardened surfaces that are functionally and effectively disconnected from the stream. Where lands adjacent to a stream display an average continuous slope of twenty percent to thirty-five percent and the required buffer is less than one hundred feet, the buffer shall extend to a thirty percent greater dimension. In all cases, where slopes within the required buffer exceed thirty-five percent, the buffer shall extend to a minimum dimension of twenty-five feet from the top of said slopes, or if a buffer associated with a geological hazard is present, to whichever extent is greater.
- D. Buffers in conjunction with other critical areas. Where other critical areas defined in this chapter fall within the water body buffer, the buffer area shall be the most expansive of the buffers applicable to any applicable critical area.

14.100.551 Fish and Wildlife Habitat Conservation Areas—Water Bodies—Buffer Averaging

The Director shall have the authority to average standard stream buffer widths on a case-by-case basis when the applicant demonstrates to the satisfaction of the Director that all the following criteria are met.

- A. Averaging to improve wetland protection may be permitted when all of the following conditions are met as demonstrated by an assessment study pursuant to Sections 14.100.060 and 14.100.520:
- 1. The water body or buffer area has significant differences in characteristics that affect its habitat functions;
 - 2. The buffer is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the water body and decreased adjacent to the lower-functioning or less sensitive portion;
 - 3. The buffer averaging does not reduce the functions or values of the stream or riparian habitat, or the buffer averaging, in conjunction with vegetation enhancement, increases the habitat function;
 - 4. The total area of the buffer after averaging is equal to the area required without averaging and all increases in buffer dimension for averaging are generally parallel to the wetland edge;
 - 5. The buffer at its narrowest point is never less than seventy-five percent of the standard buffer width;

6. The slopes adjacent to the stream within the buffer area are stable and the gradient does not exceed thirty percent.
- B. Averaging to allow reasonable use of a parcel may be permitted when all of the following are met as demonstrated by a critical areas report pursuant to Sections 14.100.060 and 14.100.520:
1. There are no feasible alternatives to the site design that could be accomplished without buffer averaging;
 2. The buffer averaging does not reduce the functions or values of the stream or riparian habitat, or the buffer averaging, in conjunction with vegetation enhancement, increases the habitat function;
 3. The total area of the buffer after averaging is equal to the area required without averaging and all increases in buffer dimension for averaging are generally parallel to the wetland edge;
 4. The buffer at its narrowest point is never less than seventy-five percent of the standard buffer width except where the Director finds that there is an existing feature such as a roadway that limits buffer dimension, or an essential element of a proposed development such as access that must be accommodated for reasonable use and requires a smaller buffer.
- C. The applicant implements all reasonable measures to reduce the adverse effects of adjacent land uses and ensure no net loss of functions and values in conjunction with a critical area mitigation plan.

14.100.552 Fish and Wildlife Habitat Conservation Areas - Water Bodies - Buffer Increase

The Director shall have the authority to increase the width of a stream buffer on a case-by-case basis when such increase is necessary to achieve any of the following:

- A. Protect fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance; provide adequate recruitment for large woody debris, maintain adequate stream temperatures, or maintain in-stream conditions.
- B. Compensate for degraded vegetation communities or steep slopes adjacent to the stream.
- C. Maintain areas for channel migration.
- D. Protect adjacent or downstream areas from erosion, landslides, or other hazards.

14.100.553 Fish and Wildlife Habitat Conservation Areas - Water Bodies - Buffer Decrease

The Director shall have the authority to reduce buffer widths on a case-by-case basis, provided that the general standards for avoidance and minimization per 14.100.071A and B shall apply, and when the applicant demonstrates to the satisfaction of the Director that all of the following criteria are met:

- A. The buffer reduction shall not adversely affect the habitat functions and values of the adjacent habitat conservation area or other critical area.
- B. The buffer shall not be reduced to less than seventy-five percent of the standard buffer as defined in Section 14.100.550B.
- C. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed thirty percent.

14.100.554 Fish and Wildlife Habitat Conservation Areas - Other Fish and Wildlife Habitat Conservation Areas - Buffers

- A. Definition and Buffers. Protection standards for fish and wildlife habitat conservation areas other than streams and lakes are as provided in the table below:

Table 14.100.554. Other Fish and Wildlife Conservation Buffers

Fish and Wildlife Habitat Conservation Area	Buffer Requirement
<p>Areas with which federally listed threatened or endangered species have a primary association.</p> <p>State priority habitats and areas with which priority species have a primary association.</p> <p>A "primary association" means a critical component(s) of the habitats of a species, which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.</p>	<p>Buffers shall be based on recommendations provided by the Washington Department of Fish and Wildlife PHS Program; provided, that where no such recommendations are available, the buffer width shall be determined based on published literature concerning the species/habitat(s) in question and/or the opinions and recommendations of qualified professional with appropriate expertise.</p>
<p>Natural area preserves and natural resource conservation areas</p>	<p>Buffers shall be based on recommendations provided by site managers; provided, that the management strategies are considered effective and within the scope of this chapter.</p>
<p>Locally important habitat areas</p>	<p>The need for and dimensions of buffers for locally important species or habitats shall be determined on a case-by-case basis, according to the needs of specific species or habitat area of concern. The Director shall coordinate with the Washington Department of Fish and Wildlife and other state, federal or tribal experts in these instances, and shall use WDFW PHS management recommendations when available.</p>

- B. Alterations that occur within a locally important habitat area or that may affect a locally important species as defined herein shall be subject to review on a case-by-case basis. The Director shall have the authority to require an assessment of the effects of the alteration on species or habitats and may require mitigation to ensure that adverse effects do not occur. This standard is intended to allow for flexibility and responsiveness with regard to locally important species and habitats.

14.100.560 Fish and Wildlife Habitat Conservation Areas - Mitigation Standards

- A. Activities that adversely affect fish and wildlife habitat conservation areas and/or their buffers should generally be avoided through site design, including clustering. Unavoidable

impacts to designated species or habitats shall be compensated for through habitat creation, restoration and/or enhancement to achieve no net loss of habitat functions and values in accordance with the purpose and goals of this chapter.

- B. When compensatory mitigation is required, the applicant shall submit a compensatory mitigation plan with sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. In addition to the requirements of Section 14.100.072, specific information to be provided in the plan shall include, but not be limited to:
 - 1. General description and scaled drawings of the activities proposed including, but not limited to, clearing, grading/excavation, drainage alterations, planting, invasive plant management, installation of habitat structures, irrigation, and other site treatments associated with the development activities and proposed mitigation action(s);
 - 2. A description of the functions and values that the proposed mitigation area(s) shall provide, together with a description of required and an assessment of factors that may affect the success of the mitigation program; and
 - 3. A description of known management objectives for the species or habitat.
- C. Required mitigation shall be completed as soon as possible following activities that will disturb fish and wildlife habitat conservation areas and during the appropriate season. Mitigation shall be completed prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora.
- D. The Director shall have authority to require monitoring of mitigation activities and submittal of annual monitoring reports to ensure and document that the goals and objectives of the mitigation are met. The frequency and duration of the monitoring shall be based on the specific needs of the project as determined by the Director.

14.100.570 Fish and Wildlife Habitat Conservation Areas - Piped Streams

- A. Building over a natural stream that is located in an underground pipe or culvert, except as allowed in Section 14.100.530 for transportation or utility crossings, is prohibited. Relocation of the piped stream system around structures is allowed. The relocated system shall be sized to convey the one hundred-year future land use condition runoff from the total upstream tributary area as determined from a hydrologic and hydraulic analysis performed in accordance with standards determined by the city.
- B. No riparian buffers are required along segments of piped or culverted streams unless designated by the city for removal. Any easements or setbacks from pipes or culverts shall be consistent with adopted city regulations or design standards as administered by the city Public Works Department. Setback requirements will include an easement over the piped stream system and a building setback from the edge of the easement. The city will determine the setback requirement during the permit review process. The setback size will be dependent upon the required amount of space that would be needed for maintenance, operation and future replacement of the piped stream system.