



SKAMANIA COUNTY PLANNING COMMISSION

AGENDA

Tuesday, September 3, 2019 @ 6:00 PM

SKAMANIA COUNTY COURTHOUSE ANNEX, BASEMENT MEETING ROOM
170 NW VANCOUVER AVE, STEVENSON, WA

I. CALL TO ORDER

II. ROLL CALL

III. AGENDA ITEMS

1. Introduction of new Planning Commission Members Ken Bajema, Sue Davis, and Adam King.
2. Approval of minutes from the August 20, 2019, Planning Commission Meeting.
3. PUBLIC WORKSHOP on proposed Critical Areas code updates to standards for frequently flooded areas, geologically hazardous areas, and critical aquifer recharge areas.

IV. PLANNING COMMISSION BUSINESS

V. ADJOURN



Skamania County Planning Commission

PLANNING COMMISSION MEETING MINUTES

**Tuesday, August 20, 2019
Skamania County Annex
170 NW Vancouver Avenue
Stevenson, WA 98648**

Planning Commission Members:
Present:
John Prescott, Dee Bajema,
Cyndi Soliz, Tony Coates, Lesley Haskell,
Cliff Nutting

Community Development Department Staff
Present:
Alan Peters, Andrew Lembrick, Mike Beck
Teri Wyckoff

Absent: Mathew Joy

AUDIENCE

See attached sign-in sheet.

PROCEEDINGS

Meeting was called to order at 6:00 P.M. by Chair, John Prescott
Quorum was met.

AGENDA ITEMS

1. Approve Minutes from the August 6, 2019 Planning Commission meeting.
 - a. Motion was made by Cyndi Soliz and seconded by Cliff Nutting to approve the minutes of the August 6, 2019 Planning Commission Meeting.
 - b. Motion passed 4-0. Lesley Haskell abstained.
 2. Lesley Haskell asked to address a correction to the July 16, 2019 minutes, Section 3c, which stated "Cyndi Soliz moved, seconded by Tony Coates, to create an overlay zone with recommended language of "one single-family dwelling per legal lot of record" or "Single-family dwellings." The minutes did not include the final vote on the motion and so Ms. Haskell stated that they should be corrected to include the vote which was unanimous. A motion was made by Cyndi Soliz and seconded by Cliff Nutting, to approve the July 16, 2019 minutes as corrected. Motion passed unanimously.
 3. After a short discussion by the Commission members it was decided to recess the meeting for the reception to recognize Dee Bajema for 24 years of service on the Planning Commission and other Planning Commissioners whose terms are ending and revisit the proposed Critical Areas code update at the September 3, 2019 meeting. Staff reminded the
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group that the next Planning Commission meeting will be held on Tuesday, September 3, 2019, for a critical areas update workshop.

4. A motion to adjourn the meeting at 6:09 pm was made by Lesley Haskell, seconded by Dee Bajema. Motion passed unanimously.

5. MEETING ADJOURNED

ATTEST

Planning Commission Chair

Secretary



Skamania County

Community Development Department

Building/Fire Marshal • Environmental Health • Planning

Skamania County Courthouse Annex

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MEMO

TO: Planning Commission
FROM: Alan Peters, Assistant Planning Director
DATE: August 28, 2019
RE: Critical Areas Update

County Planning Staff, the County's consultant, and the Planning Commission continue progress on the County's required Critical Areas Ordinance periodic review. The Planning Commission has decided to review the proposed update chapter by chapter with Planning staff at upcoming workshops. This memo includes a brief summary of discussion topics for the September 3, 2019 workshop. As time allows, the Planning Commission will review proposed updates to the code's requirements for frequently flooded areas, geologically hazardous areas, and critical aquifer recharge areas. The Planning Commission may recommend specific changes to the draft at the workshop.

This summary is provided in addition to other publicly available information including the County's Best Available Science Report, the Revised Code of Washington, Washington Administrative Code, and the draft ordinance.

Requirement to include Best Available Science

RCW 36.70A.172 requires counties to "include the best available science in developing policies and development regulations to protect the functions and values of critical areas." WAC 365-195-905 states "the responsibility for including the best available science in the development and implementation of critical areas policies or regulations rests with the legislative authority of the county."

While the WAC and variance state agencies provide guidance, the state does not impose any specific statewide standards. Instead, the Growth Management Act defers to local decision making when determining how to "include" the best available science.

Frequently Flooded Areas (Chapter 19.06)

Frequently flooded areas are defined as areas that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year, also known as a 100-year flood. Jurisdictions are required to regulate the 100-year floodplain as a critical area, at a minimum, but may optionally regulate other areas including channel migration zones (CMZs), areas inundated by the flood of record, areas subject to groundwater flooding, or streams where the path of floodwaters can be unpredictable.

The county's existing standards for frequently flooded areas are found in SCC Chapter 21A.04.040. The proposed standards are found in Chapter 19.06 of the draft update and are unchanged.

Geologically Hazardous Areas (Chapter 19.07)

Geologically hazardous areas are one of the five different types of critical areas defined by RCW 36.70A.030(5). WAC 365-190-120 states that erosion, landslide, seismic, and volcanic hazards shall be classified as geologically hazardous areas.

Many of these areas are especially prevalent within Skamania County, including landslide and erosion hazards throughout the Cascades, volcanic hazards (Mount St. Helens and Mount Adams), and seismic hazards resulting from the county's proximity to the Cascadia subduction zone. The county's existing standards for geologically hazardous areas are found in SCC Chapter 21A.06. The proposed standards are found in Chapter 19.07 of the draft update. The primary purpose of the existing and proposed standards is to ensure the safety and wellbeing of county residents, and to prevent avoidable damage and/or loss of public and private property.

19.07.010 defines the various hazard areas. 19.07.030 includes the general regulations that apply to each of these critical areas. These are similar to the existing standards but are now more specific to the type of hazard present on a property.

19.07.030(C) includes requirements for seismic hazards. Development in these areas must comply with seismic building code requirements. Erosion hazards are addressed in 19.07.030(D) which requires erosion control plans are required, but no critical areas permit. Applicants can provide letters to demonstrate that there is no hazard present.

19.07.030(E) includes requirements for development in landslide hazard areas. Development requires a geotechnical letter, geotechnical assessment, or geotechnical report depending on the nature of the hazard or proposed development. Applicants can provide letters to demonstrate that there is no hazard present. Site specific buffers are determined by the applicant's professional.

Volcanic hazards are regulated under 19.07.030(F). For uses not exempted from review, development proposals must include an evacuation and emergency management plan.

Critical Aquifer Recharge Areas (Chapter 19.04)

Critical aquifer recharge areas (CARA) are "areas with a critical recharging effect on aquifers used for potable water where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water" (WAC Chapter 365-190). Regulating CARAs protects public drinking water from contamination by hazardous materials and aterborne illnesses, helps ensure the future availability of groundwater, and is less expensive than post-contamination cleanup of groundwater.

The county's current critical areas ordinance does not include CARA-specific requirements. The draft ordinance's standards are found in Chapter 19.04.

19.04.030(B) includes a table with permitted, prohibited, and exempted uses within CARAs.

Exempt uses require no review and permitted uses require review.

General standards for permitted (not exempt uses) are found in 19.04.040. These uses will require hydrogeologic reports meeting the requirements in 19.04.060. Some of these uses include use-specific standards which are found in 19.04.050. Generally, single-family dwellings would not require any CARA review.

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TITLE 19: CRITICAL AREAS

19.01 GENERAL CRITICAL AREA PROVISIONS

19.01.010 Purpose.

A. The purpose of this title is to comply with the Growth Management Act's (GMA) requirement to designate critical areas and adopt development regulations to assure the protection of such areas in accordance with best available science. Critical areas serve a valuable function for people and wildlife in Skamania County, but may also pose a threat to human safety and to public and private property. Building in flood prone or geologically hazardous areas can present humans with safety concerns. CARAs are essential to our drinking water supply. Wetlands serve multiple functions, including providing habitat, enhancing water quality, and attenuating flooding. Fish and wildlife habitat conservation areas are vital to the preservation of protected species. The identification, management, and protection of critical areas are, therefore, necessary to protect the public health, safety, and general welfare of the County's citizens. The purposes of this title with regard to each type of critical area include:

1. Wetlands: To recognize and protect the beneficial functions performed by wetlands.
2. Critical aquifer recharge areas: To protect public health, safety, and welfare by preventing the degradation of the quality or quantity of groundwater within designated CARAs.
3. Fish and wildlife habitat conservation areas: To recognize and protect important physical and biological functions that benefit the county and its residents.
4. Frequently flooded areas: To protect public health and safety from the hazards associated with development within frequently flooded areas.
5. Geologically hazardous areas: To recognize and protect the public from geologic hazards, including landslide hazards, seismic hazards, erosion hazards, and volcanic hazards.

B. In order to protect the rights of individual property owners, this title is to be administered with flexibility and attention to site-specific characteristics. This title shall not be used to deem property unusable by denying its owner reasonable economic use of the property.

19.01.020 Title and authority.

- A. Title. This title shall be known as the Critical Areas Ordinance of Skamania County, Washington.
- B. Authority. This title is established pursuant to Revised Code of Washington (RCW) 36.70A.060 (Washington State Growth Management Act).

19.01.030 Applicability.

- A. The Critical Areas Ordinance applies to development or actions taken by an applicant on land that contains any of the following:

1. Wetland;
 2. Critical aquifer recharge area;
 3. Fish and wildlife habitat conservation area;
 4. Frequently flooded area;
 5. Geologically hazardous area; and
 6. Buffers for these areas, as applicable.
- B. No person, company, agency, or applicant shall alter a critical area or its buffer except as consistent with this title. This title does not apply to critical areas within regulated shoreline jurisdiction that are regulated by the critical area provisions of the County's adopted shoreline master program (SMP). In addition, Title 19 does not apply to land subject to Title 22 (Columbia River Gorge National Scenic Area).
- C. The critical area regulations in this title shall apply in addition to zoning and other regulations established by Skamania County. In the event of any conflict between these and any other regulations of Skamania County, the regulations that provide greater protection of critical areas and their buffers shall apply.

19.01.040 Critical area maps.

- A. The approximate location and extent of critical areas and lands within the County planning area are identified and available on the internet through the Skamania County Community Development Department. The mapped location of critical areas is hereby adopted and considered part of this ordinance. The mapped location of critical areas are intended for use as a general guide for the assistance of property owners and as information for the public. Field investigation and analysis by a qualified professional may be required to confirm the existence, location, and proper classification of a critical area. These map locations of critical areas may be updated as new critical areas are identified. Maps updated and published by state and federal resource agencies may also be used to supplement the adopted maps.

19.01.050 Administration.

- A. The Skamania County Community Development Department, or a designee, shall serve as Administrator of this chapter.
- B. Pre-application conferences. An applicant may request a pre-application conference prior to submitting an application under this title. The purposes of the conference shall be to acquaint the applicant with the substantive procedural requirements of this title, to discuss the principal elements of the proposed action, and to identify opportunities and constraints associated with the proposed action. The applicant may also request that representatives from other agencies with expertise, such as the Washington Department of Fish and Wildlife (WDFW), or the Washington State Department of Ecology (Ecology) attend the pre-application meeting.

- C. Permit types. There are two types of permits under this title: critical areas permits and critical areas variances. Critical areas permits are required for all regulated activities listed in section 19.01.060 and are reviewed administratively with a decision made by the Administrator. Critical area variances are subject to the criteria in Section 19.01.050.C(5) and are reviewed by the Administrator, with a recommendation made to the County Hearing Examiner who makes the final decision after a public hearing in accordance with SCC Chapter 21.16.
- D. Applicants for critical area permits or critical area variances are responsible for complying with all state and federal regulations that may apply to the proposed activity, whether or not a permit or variance is granted by the County. State and federal permits will be required for certain activities in critical areas, including but not limited to in-water or wetland work. All other relevant County permit and regulatory requirements shall also be met for the proposed activity.
- E. Submittal requirements. Applications for critical area permits and critical area variances under this title shall be made on forms provided by the Administrator and shall provide a critical areas report consistent with Section 19.01.100.
- F. Review process.
1. Completeness review. Upon submittal of all the information required by the title, the Administrator shall review the application for completeness and provide notice to the applicant within 28 days whether additional information is required. If the Administrator does not respond within 28 days, the application shall be deemed complete and review shall commence. If the application is deemed incomplete, the applicant shall provide all information requested within 90 days. Once the applicant resubmits all information, the Administrator shall review the application for completeness within 14 days. The determination of completeness shall not preclude the County from requesting additional information or studies during application review.
 2. Noticing. After the application has been deemed complete, the Administrator shall issue a public notice of application within 14 calendar days after the determination of completeness to all persons owning property within 300 feet of the parcel(s) on which the development or use would occur and to any interested persons. The notice shall contain all information required by RCW 36.70B.110.
 - a. If a hearing before the hearing examiner is required, then notice of the hearing shall be published in the newspaper of record at least 10 days prior to the hearing and mailed at least 14 days prior to the hearing.
 - b. Applications for proposals that are categorically exempted from SEPA under WAC 197-11-800 and that do not require variances shall not require a public notice of application.
 3. Critical area permit and critical area variance review process. The critical areas permit and critical areas variance process shall be combined with any other County land use review processes so that applications can be reviewed expeditiously. The Administrator

shall review critical areas applications based on all applicable provisions in Title 19 and the variance criteria, if applicable. In order for a critical areas variance to be approved, the Hearing Examiner shall find that the proposed activity, use, or development meets the criteria contained in Section 19.01.050.C(5)(a).

4. Decision on critical areas permits.

a. Following the notice of application, the County may issue a decision on a critical areas permit at any time, **at least 14 days after the notice**. The decision on a critical areas variance may be issued after the conclusion of the public hearing. The County shall issue its decision on critical areas permits and variances within 120 days after issuance of completeness unless written findings specify the additional time needed for processing.

b. For applications for proposals that are categorically exempted from SEPA under WAC 197-11-800 where a public notice of application is not required, the County may issue a decision on a critical areas permit at any time within 120 days after issuance of completeness unless written findings specify the additional time needed for processing. The Administrator shall issue a public notice of decision to all persons owning property within 300 feet of the parcel(s) on which the development or use would occur and to any interested persons. The notice of decision shall include notice of the right to appeal as set forth in Section 19.01.050.C(9).

c. The Administrator or Hearing Examiner shall issue a decision on the critical areas permit or variance application, including findings of fact and conclusions, and may impose such conditions as necessary to ensure consistency with the provisions of this title.

d. Conditions included in a critical areas permit or variance shall be recorded in the County deed records to ensure notice of the conditions to successors in interest.

e. The Administrator shall mail a copy of the decision to the applicant and to any person who, prior to the rendering of the decision, requested notice of the decision, submitted substantive comments on the application, or who testified at the public hearing. The decision shall include notice of the right to appeal as set forth in Section 19.01.050.C(9).

f. The decision of the Administrator or Hearing Examiner shall become final unless a notice of appeal is filed consistent with this chapter. No action shall be authorized under any critical areas permit or variance until the expiration of the 14-day appeal period.

5. Critical area variances. To avoid the taking of private property without just compensation, this section establishes a variance process from standard critical area protection regulations.

a. The Hearing Examiner shall grant a variance if the applicant demonstrates that the requested variance conforms to all of the criteria set forth below:

- i 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;
 - ii That the special conditions and circumstances do not result from the actions of the applicant;
 - iii That 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;
 - iv That the granting of 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;
 - v That 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 area or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property; and
 - vi That 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.
- b. In granting any variance, the Hearing Examiner shall prescribe such conditions and safeguards as are necessary to secure the protection of critical areas from adverse impacts.
6. Permit validity. ~~The~~ A critical areas permit or variance approval is valid for a period of two years after the date of decision, unless extended under the provisions of this section. If development action is not initiated within two years and completed within five years of the date of the decision or, once initiated, is discontinued for one year or more, the permit decision shall be void. The decision also shall be void if a court or other appellate body of competent jurisdiction determines there was an unconstitutional taking of private property.

Critical areas permit or variance extensions. An applicant may request an extension of a critical areas permit. An extension must be requested by the applicant prior to the expiration of the original permit. A request for an extension of a critical areas permit shall be made in writing, addressed to the Administrator and shall set forth the reasons why an extension is necessary and should be granted. The Administrator may grant an extension of up to two years if it is determined that conditions for which the applicant is not responsible would prevent the applicant from commencing the use or development within the original two-year period.

7. Changes or Alterations to a Permitted Action. Any change or alteration to a development action approved by the county under this title shall be processed as a new action; provided that the Administrator may approve minor changes or alterations deemed consistent with the provisions of this title and the findings and conclusions on the original application.
8. Appeals. Interested persons may appeal the decision of the Administrator on critical areas permits within 14 calendar days from the notice of decision. Appeal shall be made to the Hearing Examiner and shall be commenced with the filing of a notice of appeal.
 - a. Notice of Appeal of Administrator's Decision. Notice of appeal forms shall be available at the Administrator's office. The notice of appeal shall be mailed to all interested parties and shall contain:
 - i The name of the person filing the notice;
 - ii The name of the applicant;
 - iii A brief description of the action proposed by the applicant;
 - iv The date upon which the Administrator's decision was issued;
 - v A concise description of the grounds upon which the appeal is premised; and
 - vi Proof of service upon all interested parties.
 - b. Hearing on Appeal of Administrator's Decision. The hearing before the Hearing Examiner shall be "de novo" – it shall consider the matter from the beginning -- but the hearing shall include the record submitted by the Administrator. The following evidentiary rules shall apply in all hearings:
 - i Evidence of a type commonly relied upon by reasonably prudent persons in the conduct of their serious affairs shall be admissible;
 - ii Irrelevant, immaterial, or unduly repetitious evidence shall be excluded;
 - iii All evidence not objected to shall be received by the Hearing Examiner, subject to the Hearing Examiner's power to exclude irrelevant, immaterial, or unduly repetitious matter; and
 - iv Evidence objected to may be received by the Hearing Examiner. Rulings on the admissibility of such evidence, if not made at the hearing, shall be made at or before the time a final order is issued.
 - c. An order of the Hearing Examiner becomes appealable when it has been reduced to written findings of fact, conclusions, and order, signed by the Hearing Examiner.
 - d. Appeals from Decisions of the Hearing Examiner. A signed written final order of the Hearing Examiner shall be final and conclusive, unless within the time frame provided in RCW 36.70C. The applicant or any adverse party makes application to a court of competent jurisdiction for judicial review of the land use decision.

9. Enforcement. Any person who willfully violates, disobeys, omits, neglects, or refuses to comply with or resists the enforcement of this title shall be guilty of a gross misdemeanor. Alternatively, any person who willfully violates, disobeys, omits, neglects, or refuses to comply with or resists enforcement of this title shall be subject to a civil penalty not to exceed \$500 per day for each violation hereof.

19.01.060 Regulated activities.

- A. Skamania County shall not approve any application for a critical areas permit or variance, 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 assuring compliance with the requirements of Title 19. The following specific developments, uses, or activities are regulated by this title and require a critical areas permit prior to initiation when located within a critical area or its buffer:
 1. Removing, clearing, grading, excavating, disturbing, or dredging soil, sand, gravel, minerals, organic matter, or materials of any kind;
 2. Dumping, discharging, or filling with any material;
 3. Subdivisions, short plats, planned unit developments (PUDs), mobile home parks, and RV parks;
 4. Construction, reconstruction, demolition, or alteration of the size of any structure or infrastructure;
 5. Construction of any new public or private road or driveway;
 6. Destroying or altering vegetation through clearing, harvesting, cutting, intentional burning, shading, or planting nonnative species where these activities would alter the character of a critical area, or its buffer; provided, that these activities are not part of a Class I, II, or III forest practice governed under Chapter 76.09 RCW and its rules. **Class IV forest practices are regulated activities under the County's critical areas ordinance;**
 7. Draining, flooding, or altering the water level, duration of inundation, or water table;
 8. Application of pesticides, fertilizers, and/or other chemicals in amounts or at times demonstrated as harmful to water quality, wetland habitat, riparian corridors associated with surface water systems, or wildlife or fish life;
 9. The driving of pilings;
 10. The placing of obstructions; and
 11. Introductions of pollutants.

19.01.070 Exemptions.

- A. The following general activities may be located in critical areas and buffers and are not required to obtain a critical areas permit. ~~In order to obtain an exemption, the applicant must submit a written request for a letter of exemption from the Administrator that~~ Applicants may request for a letter of exemption from the Administrator that

describes the activity and states the exemption listed in this section that applies for exempt activities.

1. The provisions of this title do not apply to those activities and uses conducted pursuant to the Washington State Forest Practices Act and its rules and regulations, RCW 76.09 and Washington Administrative Code (WAC) 222, where state law specifically limits local authority, except with regard to **Class IV** developments and conversions requiring local approval, when the County is lead agency for environmental review.
2. Existing and ongoing agricultural activities and structures that are in operation at the time of adoption of the ordinance codified in this chapter.
3. Maintenance, operation, repair, reconstruction, or replacement of the following, provided that any such facilities within a watercourse, wetland, or associated buffer will result in no additional disturbance of any critical area or buffer and the risk to life or property will not increase as a result:
 - a. Existing structures;
 - b. Infrastructure, including existing public and private roads, streets, sidewalks, driveways, railroads, trails; and
 - c. Existing utility lines (electric, cable, fiber optic, telephone, gas, sewer, water, stormwater), public and private stormwater detention facilities, wastewater treatment facilities, grass-lined swales, in-stream detention facilities, and flood control and diking facilities.
4. Any remodeling of a structure that does not involve alteration to the building footprint, ground disturbance, or increased impervious surfaces.
5. Existing structures and related improvements. Structures and related improvements may continue to exist in their present form, and may be altered, including remodeled, reconstructed, or expanded, if such alteration complies with the following:
 - a. existing buildings may be altered only one time within the lifetime of the structure, and:
 - i The expansion of the structure's footprint is outside a landslide hazard area or landslide hazard area buffer unless required for safety or seismic upgrades;
 - ii Any expansion of the structure's footprint is located only within a critical area buffer. No expansion of the footprint is allowed within a wetland or fish and wildlife habitat conservation area;
 - iii Cantilevers over critical areas are not allowed;
 - iv The expansion of the structure's footprint at ground level does not exceed 500 square feet;
 - v Any expansion of the structure's footprint is no closer to the critical area than its existing footprint; and

- vi If a building is harmed or destroyed by more than 90 percent of its valuation exclusive of foundations, the building must be reconstructed in compliance with the requirements of this chapter.
- b. An existing single-family dwelling may be replaced with a new dwelling (e.g. mobile or modular home replaced by a new single-family “stick-built” residence), if the new dwelling complies with all provisions of 19.01.070.A.5(a)(i-v). Replacement of dwellings that are harmed or destroyed by a disaster must commence within twelve months of the disaster.
- c. Existing property improvements other than buildings, including driveways, parking areas, yards and landscaped areas, play areas, storage areas, decks less than 5 feet in height, patios, and similar improvements may be altered if:
 - i Any alteration is in substantially the same location as the original property improvement;
 - ii Any expansion of the improvement’s footprint is located only within the required buffer. No expansion of the footprint is allowed within the critical area itself and cantilevers over wetlands and fish and wildlife habitat conservation areas are not allowed; and
 - iii Any expansion of the improvement’s footprint is no closer to the critical area than its existing footprint.
- 6. Structures under 200 square feet in area, which are exempt from building permit requirements, that are residential accessory structures and are not plumbed, provided the structure is placed in an area of the buffer where no woody vegetation exists and will not impact the functions and values of the critical area or its buffer substantially. No more than one such structure is permitted for each existing lot.
- 7. Installation, construction, or replacement of utility facilities located inside road, utility, or railroad rights-of-way or easements that have been disturbed in the past.
- 8. Maintenance of existing and ongoing landscaping, including normal and nondestructive pruning and trimming of vegetation and thinning of limbs or individual trees in a critical area or buffer area, provided that no further disturbance is created and the landscaping was not created in violation of the critical areas ordinance.
- 9. The following vegetation removal activities:
 - a. Removal and disposal using hand tools and low impact machinery of any invasive vegetation designated by the Skamania County Noxious Weed Control Program and in addition, English ivy (*Hedera helix*); Himalayan blackberry (*Rubus armeniacus*); evergreen blackberry (*Rubus laciniatus*); giant knotweed (*Polygonum sachalinense*); Himalayan knotweed (*Polygonum polystachyum*); and Japanese knotweed (*Polygonum cuspidatum*). For the purposes of this provision, hand tools and low impact machinery include chainsaws or hand-held, gas-powered, and electric equipment and machinery designed to be surface-friendly to minimize or eliminate turf damage

and soil compaction. The removal and disposal must be conducted in compliance with the following provisions:

- i If the removal of invasive vegetation occurs in wetlands or other waterbodies, use of chemical herbicides is allowed only when using those approved by the United States Environmental Protection Agency (EPA) for application in aquatic environments.
 - ii Aquatic herbicides can be used or applied only by certified applicators or persons under the direct supervision of a certified applicator, and only for those uses covered by the certified applicator's license category.
 - iii Planting non-native species in areas from which invasive vegetation has been removed is prohibited.
- b. The removal of hazard or diseased trees from critical areas and buffers using hand tools, including chainsaws or hand-held, gas powered and electric equipment, and low impact machinery where the machinery is designed to be surface-friendly to minimize or eliminate turf damage and soil compaction issues; provided that:
- i Where the hazard is not immediately apparent to the Administrator, the applicant shall submit a report from a qualified professional that documents the hazard and provides a replanting schedule for the replacement trees. The landowner shall replace any trees that are removed with new trees at a ratio of two replacement trees for each tree removed (2:1) within one year. Replacement trees shall be of a native species at least 4 feet in height;
 - ii All non-noxious weed vegetation and cut wood (tree stems, branches, etc.) shall be left within the critical area or buffer unless removal is warranted because of the potential for fire hazard or disease or pest transmittal to healthy vegetation; and
 - iii If a tree to be removed provides critical habitat for a species with federal or state protected status, a qualified wildlife biologist shall be consulted to determine timing and methods of removal that will minimize impacts.
- c. Measures to control a fire or halt the spread of disease or damaging insects consistent with the State Forest Practices Act, RCW 76.09, 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.
10. Minimal site investigative work required for a future development or associated with scientific or archaeological research, such as surveys, soil explorations, percolation tests, and other related activities; provided that impacts on critical areas are minimized, and disturbed areas are restored to the preexisting level of function and value as soon as possible, and at most within one year after investigative work is concluded.

11. Low-impact passive recreational uses, sport fishing or hunting, scientific or educational review, or similar minimum-impact, nondevelopment activities, such as conservation or preservation of soil, water, vegetation, fish, and other wildlife.
12. 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 the soil, planting crops, applying chemicals, or altering the critical area by changing existing topography, water conditions, or water sources.
13. Maintenance of intentionally created artificial wetlands or surface water systems, including irrigation and drainage ditches, grass-lined swales and canals, detention facilities, farm ponds, and landscape or ornamental amenities. Wetlands, streams, lakes, or ponds created as mitigation for approved land use activities or that provide critical habitat shall be regulated according to the mitigation plan.
14. Fish habitat enhancement projects, watershed restoration projects, and plans in compliance with WAC 173-27-040 shall be exempt from this chapter.
15. Any projects currently under review and “vested” as that term is used in RCW 19.27.095 and 58.17.033 by local, state, or federal agencies prior to official adoption of the ordinance codified in this chapter are exempt from this chapter and will be processed under previous critical areas protection measures.
16. Emergency actions that must be undertaken immediately when time is insufficient for full compliance with this chapter may be taken only when it is necessary to prevent threat to/of:
 - a. Public health, safety, or welfare;
 - b. Public or private property;
 - c. Serious environmental degradation.

The person or agency undertaking such action shall notify the Administrator within 1 working day following the commencement of the emergency activity. Following such notification, the Administrator shall determine whether the action taken was within the scope of the emergency actions allowed in this subsection. If the Administrator determines that the action taken or part of the action taken is beyond the scope of allowed emergency actions, enforcement action is authorized, as outlined in Section 19.01.050.

The person or agency undertaking such action, upon abatement of the emergency situation, will be required to apply for a critical areas permit that would have been required, absent an emergency, pursuant to this title. The person or agency has 60 days from the abatement of the emergency to apply for a critical areas permit. The emergency action shall be the minimum possible and use reasonable methods, and restoration and mitigation for impacts shall be initiated within 3 months of the approval of critical areas permits.

19.01.080 General critical area regulations.

- A. The applicant shall determine and the County shall verify, on a case-by-case basis, whether any critical areas exist on or in close proximity to the subject property and the setback or buffer required under this title.
- B. Financial guarantee for high-value projects. The County may require a financial guarantee ensuring fulfillment of the mitigation project, monitoring program, and any contingency measures authorized by this title for mitigation projects exceeding \$500,000 in cost. The guarantee shall be in accordance with the following:
 1. The financial guarantee shall be in a 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 County Attorney.
 2. Bonds or other security authorized by this section shall remain in effect until the County determines, in writing, that the standards bonded for have been met. Bonds or other security shall be held by the County for a minimum of the length of the time specified for monitoring in the plan and shall be released after a request by the applicant and a final inspection, but may be held for longer periods when necessary.
- C. Inspection and right of entry. The Administrator may inspect any development activity or mitigation site to enforce the provisions of this chapter. By submitting a signed permit application, the applicant consents to entry upon the site by the Administrator during regular business hours for the purposes of making reasonable inspections to verify information provided by the applicant and to verify that work is being performed in accordance with the approved plans, permits, and requirements of this chapter.
- D. Buffers.
 1. All buffers shall be measured from the critical area boundary as determined in the field. The width of the buffer shall be determined according to the requirements of this title and the findings of a critical areas report.
 2. When a road, railroad, levee, other improvement or vertical separation completely functionally isolates the buffer from the critical area, the regulated critical area buffer shall not extend beyond the edge of the road, railroad, levee, other improvement, or vertical separation closest to the critical area. Whether a buffer is functionally isolated shall be determined by the Administrator subject to a critical area report and review.
 3. When one type of critical area overlaps with or is contained within another type of critical area or buffer, the buffer width shall be the greatest distance required by the buffer width of the most restrictive critical area.
 4. Standard buffers. The standard buffer widths presume the existence of a relatively intact native vegetation community in the buffer zone adequate to protect the critical area functions and values at the time of the proposed activity. If the vegetation or protection area is inadequate, the County may require an increase in the buffer width or additional native plantings within the standard buffer width.

5. Buffer averaging. The Administrator authorizes averaging for wetland and fish and wildlife habitat conservation buffers only when the buffer area and width after averaging will not impact the critical area and/or buffer functions and values adversely and such averaging does not exceed 25 percent of the buffer width. At a minimum, any proposed buffer averaging shall meet all of the following criteria, as demonstrated in the applicant's critical areas report:
 - a. The buffer area after averaging shall be no less than the area required without averaging.
 - b. The buffer width shall not be reduced by more than 25 percent.
 - c. There are no feasible alternatives to the site design that could be accomplished without buffer averaging.
 - d. The critical area has significant differences in characteristics that affect its habitat functions, so that the buffer is increased adjacent to the higher-functioning area and decreased adjacent to the lower-functioning portion.
 - e. The minimization measures in Table 19.01-1 are implemented, where applicable, to minimize impacts of the adjacent land use on the critical area.
 - f. The additional buffer area is contiguous with the standard buffer.
 - g. A reduced buffer is not located waterward of the top of an associated steep slope or geologically hazardous area, or a frequently flooded area.
6. Buffer reduction. The Administrator may authorize a wetland or fish and wildlife habitat conservation buffer reduction not to exceed 25 percent of the standard critical area buffer width and only if the reduction will not adversely impact the critical area and/or buffer functions and values. Unless otherwise stipulated elsewhere in this Title, the buffer reduction shall be subject to a critical area study performed by a qualified professional who finds that:
 - a. There are no feasible alternatives to the site design that could be accomplished without buffer reduction.
 - b. Buffer impacts have been avoided and minimized to the greatest extent possible, and degraded portions of the remaining buffer are enhanced to protect critical areas functions and values.
 - c. All minimization measures in Table 19.01-1 are implemented (where applicable) and are used to minimize impacts of the adjacent land use on the critical area.

Table 19.01 - 1 – Measures to Minimize Impacts to Critical Areas

Disturbance	Measures Required to Minimize Impacts
Light	Direct lights away from critical areas and/or buffer.
Noise	Locate activities that generate noise away from critical area and/or buffers. If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source.

Disturbance	Measures Required to Minimize Impacts
	For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10 feet of native, heavily vegetated buffer adjacent to the required buffer.
Toxic Runoff	Route all new, untreated runoff away from critical area. Establish covenants limiting use of pesticides within 150 feet of critical areas and their buffers. Apply integrated pest management.
Stormwater Runoff	Retrofit stormwater detention and treatment for roads and existing adjacent development. Prevent channelized flow from lawns that directly enters the buffer.
Change in Water Regime	Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and new lawns into buffer.
Disturbances by Humans and Pets	Use privacy fencing OR plant dense vegetation to delineate buffer edge and discourage disturbance. Use vegetation appropriate to the ecoregion. Place critical area and its buffer in a separate tract or protect with a conservation easement.
Vegetation Disturbances	Conserve and enhance existing native vegetation.

- d. The reduction will not adversely affect water quality or disrupt a priority habitat.
 - e. If buffer averaging or reductions are requested exceeding 25 percent of the buffer width, a critical areas variance is required consistent with SCC 19.01.050.F(5).
7. Density transfer for residential land divisions. The County shall allow transfer of density for residential uses from lands containing critical areas, as defined by this chapter. In order to accommodate the density transfer, the County may allow reductions in setbacks and lot dimensions and sizes.
- a. The basis for the density transfer will be calculated for the entire property as if it did not have the critical area, subject to the provisions of the underlying zoning designation.
 - b. Residential density may be transferred only from a critical area to an area on the same site that is not a critical area.
 - c. The critical area shall be permanently protected as undeveloped land by an easement or other similar restriction acceptable to the County.
 - d. Requests for density bonuses shall be subject to the cluster development standards in SCC 21.70.150.
- E. Marking and/or fencing.
- 1. Temporary markers. In order to prevent unauthorized intrusion during construction activities, the Administrator may require, as a condition of any permit or variance, that the outer perimeter of a critical area or buffer, whichever is greater, and the limits of the areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field in a manner approved by the County to prevent unauthorized intrusion as appropriate to the type of critical area. This temporary marking shall be

maintained throughout construction and shall not be removed until directed by the County or its agent, or until permanent signs and/or fencing, if required, are in place.

2. Permanent markers. The Administrator may require, as a condition of any permit or variance, that the perimeter of the critical area or buffer be permanently identified. If required, this identification shall include permanent wood or metal signs on wood or metal posts, or affixed to stone boundary markers at ground level. Sign content and spacing shall be determined by the Administrator as necessary to meet the purposes of this section.
3. Permanent fencing. The Administrator shall require permanent fencing where there is a substantial likelihood of intrusion into the critical area/buffer with the development proposal or when domestic grazing animals are present or may be introduced on site. The Administrator may also require such fencing when, subsequent to approval of the development proposal intrusions result in damage to critical areas. Fencing shall be designed and constructed in a manner that minimizes impacts to the critical area/buffer.

19.01.090 General mitigation requirements for all critical areas.

- A. Skamania County will use the following general methods and mechanisms to accomplish the purposes of the critical areas regulations. This section shall apply to all uses and developments that result in critical area impacts. These provisions do not apply to CARAs; mitigations for proposed impacts to CARAs shall be in compliance with the findings of a hydrogeological study required by section 19.04.060.
- B. Use and development in or near critical areas and all mitigation actions that require compensation shall observe the mitigation sequence in the following order of priority:
 1. Avoid the impact altogether by not taking a certain action or parts of an action;
 2. Minimize the impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
 3. Rectify the impact by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project or activity;
 4. Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
 5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments; and
 6. Monitor the impact and the compensation projects and take appropriate corrective measures.
- C. When a critical area is created, restored, or enhanced as compensation for an approved alteration, the following shall apply:
 1. The required buffer distance is determined by this title. Buffers must be maintained as required by this title.

- D. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and water quality.
- E. General mitigation requirements: The following section provides general mitigation requirements applicable to alteration of critical areas. Additional specific mitigation requirements are found under the sections for the particular type of critical area.
1. Mitigation is required when a critical area or its buffer has been altered in violation of County regulations and, as a consequence, its functions and values have been degraded. Mitigation is also required when the alteration occurs in violation of County regulations during the construction of an approved development proposal. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan.
 2. Restoration is required when the critical area or its buffer will be temporarily impacted during the construction of an approved development proposal. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan. A qualified professional should determine whether restoration is possible before any temporary disturbance occurs.
 3. Compensation. The goal of compensation is to protect critical area/or buffer functions and values. Compensation includes replacement, restoration, or enhancement of the critical area or its buffer depending on the scope of the approved alteration and what is needed to maintain or improve the critical area and/or buffer functions. Compensation for approved critical area or buffer alterations shall meet the following minimum performance standards and shall occur pursuant to an approved mitigation plan:
 - a. On-site. Unless otherwise approved, compensation for all critical area impacts shall be in-kind, on-site, and of the same or higher critical area category.
 - b. Off-site. The County or its agent may consider and approve off-site compensation where the applicant demonstrates that greater ecological functions will be achieved. The compensation may include restoration, creation, or enhancement of critical areas. Off-site mitigation banking is permitted at a bank approved through the Interagency Review Team.
 - c. The compensation ratios specified by this title shall apply for both on-site and off-site compensation.
 - d. Increased replacement ratios. The County or its agent may increase the mitigation ratios under the following circumstances:
 - i Uncertainty exists as to the probable success of the proposed compensation due to an unproven methodology or proponent; or
 - ii A significant period will elapse between impact and compensation of critical area functions; or
 - iii The impact was unauthorized.

- e. Decreased replacement ratios. When all of the following criteria are met, the County or its agent may decrease the mitigation ratios required by the on-site ratios specified under the compensation section of each critical area:
 - i Minimum replacement ratio of 1:1 will be maintained;
 - ii Documentation by a qualified specialist demonstrates that the proposed mitigation actions will provide functions and values that are greater than the critical area being impacted; and
 - iii The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful. If a specific critical area has a greater ratio than the general ratio, then the more stringent ratio would apply.
 - f. Restoration credits. Restoration and enhancement completed in advance of critical area development may be used for future development-related mitigation purposes when:
 - i The restoration and enhancement is: either demonstrably related to the impacts of the proposed development (i.e., in-kind); or not demonstrably related to the impacts of the proposed development (i.e., out-of-kind), provided the restoration and enhancement will result in equal or greater levels of ecological processes or functions than would in-kind restoration and enhancement;
 - ii The restoration was initiated after the effective date of this title;
 - iii The applicant/property owner can provide conclusive evidence of the pre-and post-restoration conditions using photographs, reports, plans, affidavits, or similar evidence;
 - iv The County can verify through a site inspection, photographs, affidavits or other evidence that the restoration actions have improved ecological conditions; and
 - v Protective measures are applied to the restored and enhanced area in the form of a tract, conservation easement, or similar preservation mechanism approved by the County.
 - g. Critical area enhancement as mitigation. Unless otherwise specified by this title, impacts to critical areas may be mitigated by enhancement of existing significantly degraded critical areas for areas impacted at a required mitigation ratio of 2:1. For any remaining impacts not offset by mitigation, a 1:1 replacement mitigation ratio is required. Applicants proposing to enhance critical areas must produce a critical areas report that identifies how enhancement will increase the functions and values of the degraded critical areas and how this increase will adequately compensate for the loss of critical area function at the impact site.
4. Mitigation shall be completed prior to, concurrently with, or immediately following impacts and prior to use or occupancy of the activity or development, or as soon as is seasonally appropriate and shall have a high probability of success, as verified during

mitigation plan review. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, water quality, and vegetation.

F. Mitigation plans.

1. Mitigation or alterations to critical areas shall achieve equal or greater ecological functions. Mitigation sites for wetlands, streams, and fish and wildlife habitat conservation critical areas should be located to achieve contiguous habitat corridors in accordance with an approved mitigation plan in order to minimize the isolating effects of development on habitat areas. Mitigation of aquatic habitat shall be located within the same aquatic ecosystem as the area disturbed. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.
2. At a minimum, the following components shall be included in a complete mitigation plan:
 - a. Name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the compensatory mitigation report; a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all the local, state, and/or federal wetland-related permit(s) required for the project; and a vicinity map for the project.
 - b. Baseline information. Provide existing conditions information for both the impacted critical areas and the proposed mitigation site.
 - c. Environmental goals and objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensation proposed, and including:
 - i A description of the anticipated impacts to the critical areas, 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 completing mitigation site construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area; and
 - ii A review of the science supporting the proposed mitigation.
 - d. Performance standards. The mitigation plan shall include measurable specific criteria for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained and whether or not the requirements of this chapter have been met. They may include water quality standards, species diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.
3. In addition to the minimum requirements listed above, additional scope and content of a mitigation plan shall be decided on a case-by-case basis by the County or its consultant. As the impacts to the critical area increase, the mitigation measures to offset these

impacts will increase in number and complexity. Key factors in this determination shall be the size and nature of the development proposal, the nature of the impacted critical area, the magnitude of the impacts, and the degree of cumulative impacts on the critical area from other existing or anticipated development proposals.

4. Detailed construction plans. These are the written specifications and descriptions of mitigation technique. This plan should include the proposed construction sequencing, grading and excavation details, erosion and sedimentation control features, a native planting plan, and detailed site diagrams and any other drawings appropriate to show construction techniques and anticipated final outcome.
5. Contingency plan. This section identifies potential courses of action, and any corrective measures to be taken when monitoring or evaluation indicates that performance standards have not been met.

G. Monitoring.

1. The County will require long-term monitoring of mitigation sites where alteration of critical areas or their buffers are approved. Such monitoring shall be an element of the required mitigation plan and shall document and track impacts of development on the functions and values of critical areas, and the success and failure of mitigation requirements. The applicant remains responsible for the restoration of the natural resource values and functions until the mitigation goals agreed to in the mitigation plan have been achieved. Monitoring may include, but is not limited to:
 - a. Documenting the percentage of plants that have survived and replanting to replace dead plants;
 - b. Establishing vegetation transects or plots to track changes in plant species composition over time;
 - c. Using aerial or other photography to evaluate vegetation community response;
 - d. Sampling surface and ground waters to determine pollutant loading;
 - e. Measuring base flow rates and stormwater runoff to model and evaluate water quantity predictions;
 - f. Measuring sedimentation rates;
 - g. Sampling fish and wildlife populations to determine habitat use, species abundance, and diversity;
 - h. Sampling of water temperatures for wetlands and streams;
2. The applicant or property owner is required to submit monitoring data and reports to the County on an annual basis or other schedule as required by the County or its agent. Monitoring shall continue for a minimum period of three years or for a longer period if necessary to establish that the mitigation performance standards have been met or as specified under the specific chapters of this title.

H. Contingencies/adaptive management.

1. When monitoring reveals a significant deviation from predicted impacts or a failure of mitigation measures, the applicant shall be responsible for appropriate corrective action. Contingency plans developed as part of the original mitigation plan shall apply, but may be modified to address a specific deviation or failure. Contingency plan measures shall be subject to the monitoring requirement to the same extent as the original mitigation measures.

19.01.100 General critical area report requirements.

- A. In addition to the information required for any other type of permit (subdivision, conditional use, variance, etc.), or for any development activity that will impact a critical area and/or critical area buffer, or if an applicant proposes buffer averaging or reductions, the applicant is required to submit a critical areas report.
- B. When sufficient information is not available to determine whether a critical area exists on a site based on critical area maps, development project files, or publicly available data (the WDFW, the National Wetland Inventory (NWI), etc.) as determined by the County, County staff or its agent shall notify the applicant that a critical areas study and report are required. The County may rely on input from a qualified representative of the appropriate resource agency to assist with the determination that a critical areas report is necessary. (For example, the WDFW regional representative may be consulted to determine whether the presence of a fish and wildlife conservation area requires a critical areas study.)
- C. Early disclosure and verification. When an applicant submits an application for any development proposal, the application shall indicate whether any critical areas or buffers are located on or within 300 feet of the development. If the applicant states there are no known critical areas, the County should review and confirm whether critical areas exist, and, if critical areas or buffers are present that would be impacted, require the applicant to complete a critical areas report.
- D. Professional review and preparation.
 1. Critical area reports shall be written by a qualified professional, as defined in the definitions section of this title. A critical areas report shall include all information required pursuant to this section.
 2. Studies generated as part of State Environmental Policy Act (SEPA) review or prepared for other federal or state permit processes (such as biological opinions or biological evaluations) shall be provided and may be determined by the Administrator as adequate to satisfy the critical areas report requirements of this title if the project has been developed in enough detail to have evaluated the site-specific impacts and mitigation measures.
 - 2.3. The County or its agent may retain independent qualified consultants, at the applicant's expense, to assist in review of studies that are outside the range of staff expertise. The County may develop a list of pre-qualified consultants that can be used by an applicant in order to preclude the need for peer review of submitted reports.

E. Report contents. The Administrator has the authority to determine the applicability of individual critical areas report requirements and may waive report requirements determined to be unnecessary on a case-by-case basis.

1. A critical areas report shall have three components: (a) a site analysis; (b) an impact analysis, including assessment of cumulative impacts; and (c) proposed mitigation measures. More or less detail may be required for each component depending on the size and intensity of the project and the degree of potential impacts. The County or its agent may waive the requirement of any component when adequate information is otherwise available.
2. In addition to the requirements specified under each critical area, all studies shall contain the following information unless the information has been determined not to apply to the site by the Administrator:
 - a. A site map or set of maps, of the project area at a scale of 1:200 or larger, including:
 - i Reference streets and property lines.
 - ii Existing and proposed easements, rights-of-way, trail corridors, and structures.
 - iii Highlighted 5-foot contour lines
 - iv All critical areas and their buffers.
 - v All mitigation areas.
 - vi Hydrology: Surface water features both on and adjacent to the site, showing any water movement into, through, and off the project area; all stream and wetland classifications (e.g., hydrogeomorphic class, Cowardin class, etc.); seeps, springs, and saturated soil zones; and wetlands not found on the County inventory maps labeled as "un-inventoried."
 - vii Identification of all site preparation, grading activities, and dimensioned location of proposed structures, roads, stormwater facilities, impervious surfaces, and landscaping.
 - viii All drainage plans for discharge of stormwater runoff from developed areas.
 - ix Location of critical area tract and/or easement.
 - b. A written report, including:
 - i The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the critical area report; a description of the proposal; identification of all the local, state, and/or federal permit(s) required for the project; and a vicinity map for the project.
 - ii How and when the study was conducted, who conducted it, and who authored the report (including methodology and techniques for field studies).
 - iii Description of the project site and its existing condition, including degraded critical areas.

- iv Description of existing critical area and buffer functions and values, including any functionally isolated areas.
 - v The total acreage of the site in each type of critical area(s) and associated buffers.
 - vi The proposed action, including, but not limited to, descriptions of filling, dredging, modification for stormwater management, clearing, grading, restoring, enhancing, grazing or other physical activities that will change the existing vegetation, hydrology, soils, or habitat.
 - vii When alteration to a critical area or its buffer is proposed, explain why the impact is unavoidable in accordance with this title.
 - viii Description of potential environmental impact of the proposed project to the critical areas/buffers and demonstration of mitigation sequencing approach, and description of any proposed construction and permanent mitigation measures in accordance with the mitigation plan requirements in 19.01.090.F.
 - ix Native vegetation conservation strategy that addresses methods to protect and enhance on-site critical area functions.
 - x A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs.
 - xi Description of local, state, and federal regulations applicable to the critical area and permit requirements.
- c. The County may waive selected components of the report or accept an alternative form of the required information if the County determines, in consultation with the appropriate resource agency, that sufficient detail will be provided to determine whether all applicable criteria and standards have been met.

19.01.110 Unauthorized Alterations and Enforcement

- A. The provisions of the SCC shall govern the enforcement of these critical area regulations.
- B. Adherence to the provisions of this chapter and/or to any project conditions shall be required throughout the construction of the development. Should the County or its agent determine that a development is not in compliance with the approved plans, a stop work order may be issued for the violation.
- C. When a stop work order has been issued, construction shall not continue until such time as the violation has been corrected and the County determines that the same or similar violation is not likely to reoccur.
- D. When a critical area or its buffer has been altered in violation of this Ordinance, all ongoing development work shall stop and the applicant shall obtain all the federal, state, and local permits that would have been required had the applicant first obtained permits. Further, this requirement applies to mitigating for all impacts, including temporal loss of functions. The County shall have the authority to issue a stop-work order to cease all ongoing

development work and to order restoration, rehabilitation, or replacement measures at the applicant's or other responsible party's expense to compensate for the violation of the provisions of this Chapter.

- E. When the County or its agent determine that complete restoration is required, the owner or responsible party shall submit a restoration plan. Such a plan shall be prepared by a qualified professional using currently accepted scientific principles and shall describe how the actions proposed meet the minimum requirements described in subsection F. At the expense of the applicant or responsible party, the County or its agent shall seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.
- F. Minimum performance standards for restoration. The following minimum performance standards shall be met for the restoration of a critical area, provided that if the applicant or responsible party can demonstrate that greater functions and habitat values can be obtained, these standards may be modified:
 - 1. The historical structure, functions, and values of the affected critical area shall be restored, including water quality and habitat functions.
 - 2. The historical soil types and configuration shall be restored to the extent practicable.
 - 3. The critical areas and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historical functions and values should be replicated at the location of the alteration.
 - 4. Information demonstrating compliance with other applicable provisions of this Chapter shall be submitted to the County or its agent.
- G. Site Investigations. The County or its agent is authorized to make site inspections and take such actions as are necessary to enforce this Chapter. The County or its agent shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.
- H. 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.
 - 1. Each day or portion of a day during which a violation of this Chapter is committed or continued shall constitute a separate offense. 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 County 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 per day per violation.
 - 2. If the critical area affected cannot be restored, monies collected as penalties shall be deposited in a dedicated account for the preservation or restoration of landscape processes and functions in the watershed in which the affected critical area is located.

The County may coordinate its preservation or restoration activities with other jurisdictions in the watershed to optimize the effectiveness of the restoration action.

19.01.120 Property Tax Relief

- A. The county assessor shall consider the wetlands and wetland buffer areas, fish and wildlife habitat conservation areas and geologically hazardous areas contained within this chapter when determining the fair market value of land.
- B. Any owner of a wetland, wetland buffer area, or fish and wildlife habitat conservation area who has dedicated a conservation easement or entered into a perpetual conservation restriction with a department of the local, state, or federal government; or a nonprofit organization to permanently control some or all the uses and activities within these areas may request that the county assessor reevaluate that specific area consistent with those restrictions and provisions of open space land current use taxation.

DRAFT

19.02 DEFINITIONS

For purposes of this title, the following words shall have the definitions set out below.

Active Fault – a fault that is likely to undergo renewed movement within a period of time 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.

Administrator – The Skamania County Community Development Department Director or designee responsible with administration of Title 19.

Agriculture Activities – agricultural uses and practices including, but not limited to: producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities, provided that the replacement facility is no closer to the critical area than the original facility; and maintaining agricultural lands under production or cultivation. Examples of agricultural activities include: raising, harvesting and selling of crops; feeding, breeding, management and sale of, or production of, livestock, poultry, fur-bearing animals or honeybees; dairying and the sale of dairy products; any other agricultural or horticultural use, including Christmas trees; operation, maintenance and conservation measures of farm and stock ponds or drainage ditches, or irrigation systems; changes between agricultural activities, and normal maintenance or repair of existing serviceable structures, facilities or improved areas.

Agricultural Activities, Existing and Ongoing – Any agricultural activities conducted on agricultural land defined in RCW 84.34.020(2) within the last five years. Any activity that would cultivate land that has not been cultivated, or has lain idle, for more than five years shall be considered a new agricultural activity, not existing and ongoing.

Agricultural Resource Land – land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, 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, finfish in upland hatcheries, or livestock, and that has long-term commercial significance for agricultural production. These lands are referred to in this chapter as agricultural resource lands to distinguish between formally designated lands, and other lands used for agricultural purposes.

Alluvial Fan – a low, outspread, relatively flat to gently sloping mass of loose alluvium, shaped like an open fan, deposited by a stream where it issues from a narrow valley, or where a tributary stream issues into the main stream, or wherever a constriction in a valley abruptly ceases or the gradient of the stream suddenly decreases; it is steepest near the mouth of the

valley where its apex points upstream, and it slopes gently and convexly outward with gradually decreasing gradient.

Alteration – a human action that results in a physical change to the existing condition of land or improvements, including, but not limited to: clearing vegetation, filling and grading, and construction of structures or facilities including impervious surfaces.

Anadromous Fish – fish that spawn in fresh water and mature in the marine environment.

Aquatic area – the water area of a stream, pond or lake measured at the ordinary high water mark.

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

Base flood – the flood having a 1 percent chance of being equaled or exceeded in any given year. Designations of base flood areas on flood insurance maps 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 365-195-925.

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, or sediment; (b) minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands; (c) protect trees, vegetation, and soils designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and (d) provide standards for proper use of chemical herbicides within critical areas.

Bog – a peat wetland with a high percent of cover of Sphagnum moss and/or predominantly sphagnum peat in the rooting zone, low nutrient availability, low pH and resulting distinctive flora.

Buffer – the zone contiguous with a critical area that is required for the continued maintenance, function, and structural stability of the critical area.

Channel Migration Zone (CMZ) – means the area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.

Clearing – the destruction or removal of vegetation from a site by physical, mechanical, chemical or other means. This does not include landscape maintenance or pruning consistent with accepted horticultural practices that does not impair the health or survival of the trees or native vegetation.

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

Critical Aquifer Recharge Area (CARA) – areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.

Critical Areas – any of the following areas or ecosystems: (a) wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas.

Critical Areas Permit – a written authorization issued by the Community Development Department declaring that an identified development or regulated activity complies with the provisions of this chapter.

Critical Facilities - include, but are not limited to, schools; nursing homes; hospitals; police, fire and emergency response installations; public and private utilities and infrastructure that are vital to maintaining or restoring normal services to areas damaged by hazard events; and installations that produce, use, or store hazardous materials or hazardous waste.

Cumulative Impact – 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 the effects of other actions 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.

Department – the Skamania County Community Development Department.

Development – a regulated project involving property improvement or a change of physical character within the site; the act of using land for building or extractive purposes. Development shall include, but shall not be limited to, the activities identified in SCC 19.01.060.

Ecological Functions – the work performed or the role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the critical area's natural ecosystem.

Enhancement – alteration of an existing resource to improve or increase its functions and processes without degrading other existing functions. Enhancements are to be distinguished from resource creation or restoration projects.

Erosion – the general process or the group of processes whereby the materials of the earth's crust are loosened, dissolved, or worn away, and simultaneously moved from one place to another, by natural forces, which include weathering, solution, corrosion, and transportation, but usually exclude mass wasting (American Geological Institute, 1998).

Erosion Hazard Area – those areas containing soils which, according to the United States Department of Agriculture Natural Resource Conservation Service Soil Survey Program, may experience significant erosion. Erosion hazard areas also include channel migrations zones.

Excavation – the artificial movement of earth materials.

Exempt – an activity that is within a critical area or its buffer and is subject to the exemption provisions of the General Provisions section of the critical areas ordinance (19.01.070) or the exemption provisions of the individual chapters of the ordinance, provided that such activities are otherwise consistent with other local, state, and/or federal laws and requirements.

Feasible – an action, such as a development, mitigation, or restoration project, meets all of the following conditions:

1. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;
2. The action provides a reasonable likelihood of achieving its intended purpose; and
3. The action does not physically preclude achieving the project's primary intended legal use.

In cases where this chapter requires certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant. In determining an action's infeasibility, the County may weigh the action's relative public costs and public benefits, considered in short- and long-term time frames

Federal Emergency Management Agency (FEMA) – agency that oversees the administration of the National Flood Insurance Program (44 CFR).

Filling – a deposit of earth or other natural or human-made material placed by artificial means.

Fish and Wildlife Habitat Conservation Areas – areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. These areas may also include locally important habitats and species. Fish and wildlife habitat conservation areas do not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

Flood Insurance Rate Map (FIRM) – the official map on which the Federal Insurance Administration has delineated many areas of flood hazard, floodways, and the risk premium zones (CFR 44 Part 59).

Flood Insurance Study – the official report provided by the Federal Insurance Administration that includes the flood profiles and the FIRM (CFR 44 Part 59).

Flood – a general and temporary condition of partial or complete inundation of normally dry land areas from: 1. the overflow of inland or tidal waters; 2. the unusual and rapid accumulation or runoff of surface waters from any sources.

Floodplain – synonymous with 100-year floodplain and means the land area susceptible to being inundated by stream derived waters with a 1 percent chance of being equaled or exceeded in any given year. The limits of this area are based on flood regulation ordinance maps.

Floodproofing – any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

Floodway – the area that either: (i) has been established in FEMA flood insurance rate maps or floodway maps or letters of exemption for specific properties; or (ii) consists of those portions of a river valley lying streamward from the outer limits of a watercourse upon which flood waters are carried during periods of flooding that occur with reasonable regularity, although not necessarily annually, said floodway being identified, under normal condition, by changes in surface soil conditions or changes in types or quality of vegetative ground cover condition, topography, or other indicators of flooding that occurs with reasonable regularity, although not necessarily annually. Regardless of the method used to identify the floodway, the floodway shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or maintained under license from the federal government, the state, or a political subdivision of the state.

Frequently Flooded Areas – lands in the floodplain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, wetlands, and areas where high groundwater forms ponds on the ground surface.

Functionally Isolated Buffer Areas – areas that are functionally separated from a critical area and do not protect the critical area from adverse impacts due to preexisting roads, railroads, levees, structures, or vertical separation.

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, and recreation enjoyment and other values.

Geologically Hazardous Areas – areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events (as designated by WAC 365-190-080(4)) are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns .

Geologist – see definition under qualified professional.

Geotechnical Report or Geotechnical Analysis – a scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts of the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers or geologists who have professional expertise about the regional and local geology and processes.

Grading – the deliberate movement or distribution of the soil, sand, rock, gravel, sediment or other material on a site in a manner that alters the natural contour of the land.

Groundwater – water in a saturated zone or stratum beneath the surface of land or a surface water body.

Habitat – the place or type of site where a plant or animal naturally or normally lives and grows.

Habitat Conservation Areas – areas designated as fish and wildlife habitat conservation areas. See Table 19.15.130-A, Fish and Wildlife Habitat Conservation Areas, or WAC 365-190-080(5)(a).

Habitats of Local Importance – those areas that include a seasonal range or habitat element with which a given species has a primary association, and that, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. These might include areas of high relative population 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).

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.

Hearing Examiner – an appointed official vested with the duties established by Skamania County Ordinance Number 2006-16.

Historic Condition – means the 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.

Hydric Soil – is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part.

Hydrology – the properties of the water, including circulation and distribution, on and below the ground.

Hydrophytic (or Wetland) Vegetation – those plants which have adapted to growing in the low-oxygen (anaerobic) conditions associated with prolonged saturation or flooding.

Hyporheic Zone – area under or beside a stream channel or floodplain that contributes water to the stream and performs ecological functions such as removing excessive nutrients and toxic compounds, water storage, support of vegetation, sediment storage, and maintenance of base flows.

Impervious Surface Area – any non-vertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle including, but not limited to, roof tops, swimming pools, paved or graveled roads and walkways or parking areas and excluding landscaping and surface water retention/detention facilities.

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Intermittent (or Seasonal) Streams – streams that do not have surface flow during at least some portion of the year.

Isolated Wetlands – a wetland that is hydrologically isolated from other aquatic resources, as determined by the United States Army Corps of Engineers (USACE). Isolated wetlands may perform important functions and are protected by state law (RCW 90.48) whether or not they are protected by federal law.

Lahars – a rapidly flowing mixture of soil, pyroclastic and other rock debris, and water that originate on the slopes of volcanoes.

Lake – a body of standing water in a depression of land or expanded part of a river, including reservoirs, of twenty acres or greater in total area. A lake is bounded by the ordinary high water mark or, where a stream enters a lake, the extension of the elevation of the lake's ordinary high water mark within the stream.

Landscaping – any combination of living plants, such as trees, shrubs, vines, ground covers, flowers or grass; natural features such as rock, stone, bark chips or shavings; and structural features, including but not limited to fountains, reflecting pools, outdoor artwork, screen walls, fences, or benches that have been installed for the primary purpose of beautifying a development or property. Landscaping does not include plantings installed as mitigation for impacts to critical areas or critical area buffers.

Landslide Hazard Areas – areas subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible to landslide because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors, and include, at a minimum, the following:

1. Areas of historic failures, such as:
 - a. Those areas delineated by the United States Department of Agriculture Natural Resources Conservation Service as having a significant limitation for building site development;
 - b. Those coastal areas mapped as class u (unstable), uos (unstable old slides), and urs (unstable recent slides) in the department of ecology Washington coastal atlas; or
 - c. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the United States Geological Survey or Washington

2. Areas with all three of the following characteristics:
 - a. Slopes steeper than fifteen percent;
 - b. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - c. Springs or groundwater seepage.
3. Areas that have shown movement during the holocene epoch (from ten thousand years ago to the present) or which are underlain or covered by mass wastage debris of this epoch;
4. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;
5. Slopes having gradients steeper than eighty percent subject to rockfall during seismic shaking;
6. Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action, including stream channel migration zones;
7. Areas that show evidence of, or are at risk from snow avalanches;
8. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and
9. Any area with a slope of forty percent or steeper and with a vertical relief of ten or more feet except areas composed of bedrock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical relief.

Landslide – episodic down slope movement of a mass of soil or rock that includes, but is not limited to, rock falls, slumps, mudflows, and earth flows.

Lateral Spreads – a type of earthquake-induced landslide. Areas subject to lateral spreading are typically gently sloping or flat sites underlain by liquefiable sediments adjacent to an open face, such as river banks. Liquefied soils adjacent to open faces may flow in that direction, resulting in lateral displacement and surface cracking.

Liquefaction – a process in which the strength and density of a soil is reduced by earthquake shaking or other rapid pressure. It occurs in soils in which the space between individual particles is completely filled with water (e.g., saturated soils). During an earthquake, the water pressure between the particles increases to the point where the soil particles can readily move with respect to each other, and thus the soil loses strength. Liquefaction can induce significant ground settlement, bearing-capacity failure, and lateral spreading.

Mitigation Sequence – the process of minimizing or compensating for adverse environmental impact(s) on a critical area. The type(s) of mitigation required shall be considered and implemented, where feasible, in the following sequential 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; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

(e) compensating for the impact by replacing or providing substitute resources or environments; or (f) monitoring the impact and taking appropriate measures to achieve the identified goal.

Mitigation, Compensatory – replacing or otherwise offsetting project-induced losses or impacts to a critical area or its buffer.

Mitigation, In-Kind – replacing critical areas with substitute areas whose characteristics, functions, and values closely approximate those negatively impacted by a regulated activity.

Mitigation, Off-Site – replacing a critical area in a location other than its impacted site.

Mitigation, On-Site – replacing a critical area at, or adjacent to, its impacted site.

Mitigation, Out-of-Kind – replacing a critical area with a substitute area whose characteristics are not a close approximation of those negatively impacted by a regulated activity.

Mitigation, Wetland Compensatory – the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purposes of tracking net gains in wetland acres, wetland mitigation may include one or more of the following elements:

1. Reestablishment – the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning its natural or historic functions to a former wetland. Reestablishment results in a gain in wetland acres (and functions). Activities could include removing fill material, plugging ditches, or removing existing drainage structures.
2. Rehabilitation – the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning its natural or historic functions to a degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. Activities could involve breaching a dike to reconnect wetlands to a floodplain or returning tidal influence to a wetland.
3. Establishment – the manipulation of the existing physical, chemical, or biological characteristics of a site to develop a wetland in an upland or deepwater location where a wetland did not previously exist.
4. Creation – see establishment.
5. Enhancement – the manipulation of the physical, chemical, or biological characteristics of an existing wetland site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present.
6. Preservation – actions taken to ensure the permanent protection of existing, high-quality wetlands.

Monitoring – the collection of data by various methods for the purpose of understanding natural systems and features, evaluating the impact of development proposals on such systems, and/or assessing the performance of mitigation measures imposed as conditions of development.

National Environmental Policy Act (NEPA) – federal environmental law that promotes the enhancement of the environment.

Native Vegetation – plant species or communities indigenous to the region, including extirpated species.

Natural Waters – all waters excluding only water conveyance systems which are artificially constructed and actively maintained for irrigation or storm water runoff.

Ordinary High Water Mark (OHWM) – on all lakes, streams, and tidal water, OHWM 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.

Oregon White Oak Woodland – priority Oregon white oak woodlands are stands of pure oak or oak/conifer associations where canopy coverage of the oak component of the stand is 25 percent; or where total canopy coverage of the stand is less than 25 percent, but oak accounts for at least 50 percent of the canopy coverage present. The latter is often referred to as an oak savanna. East of the Cascades, priority oak habitat is stands 5 acres in size. In urban or urbanizing areas, single oaks, or stands of oaks less than 1 acre, may also be considered priority habitat when found to be particularly valuable to fish and wildlife (i.e., they contain many cavities, have a large diameter at breast height [DBH], are used by priority species, or have a large canopy).

Preservation – removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland.

Primary Association – 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.

Priority Habitat – habitat types or elements with unique or significant value to one or more species as classified by WDFW.

Pyroclastic Flow – fluidized avalanches of hot, dry pyroclastic debris and gases that descend a volcano's flanks and beyond at speeds of ten to hundreds of meters per second. A flow is composed of two parts:

1. A ground-hugging dense basal flow that is the pyroclastic flow proper; and
2. An overriding turbulent ash-cloud surge of ash winnowed from the flow.

Qualified Professional – a person with experience and training in the pertinent scientific discipline, and who is a qualified expert with expertise appropriate for the relevant critical area subject in accordance with Washington Administrative Code (WAC) 365-195-905(4). A qualified professional must have obtained a BS or BA or equivalent degree in biology, engineering, environmental sciences, fisheries, geomorphology or related field, and two years of related work experience or an individual acting under the direction of a qualified professional.

1. A qualified professional for **fish and wildlife habitat conservation areas** or wetlands must have a degree in biology or a related environmental science and professional

experience related to the subject. **For wetlands, the professional must have** -at least 2 years of full-time work experience as a wetlands professional, including delineating wetlands using the federal manual and supplements, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans, or an individual working under the direction of a professional with these qualifications.

2. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.
3. A qualified professional for critical aquifer recharge areas must be a ~~hydrologist, geologist, engineer, or other scientist with experience in preparing hydrological assessments.~~ licensed geologist in Washington State holding a current specialty license in hydrogeology.

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

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.

Resident Game Fish – game fish as described in the Washington Game Code that spend their life cycle in fresh water.

Restoration, Restore, or Ecological Restoration – the re-establishment or upgrading of impaired ecological processes or functions. This may be accomplished through measures including, but not limited to, re-vegetation, removal of intrusive structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the critical area to aboriginal or pre- European settlement conditions.

Revised Code of Washington (RCW) – compilation of all permanent laws now in force. It is a collection of Session Laws (enacted by the Legislature, and signed by the Governor, or enacted via the initiative process), arranged by topic, with amendments added and repealed laws removed.

Riparian – of, on, or pertaining to the banks of a river, stream or lake.

Riparian Area – that area immediately adjacent to streams, ponds, lakes and wetlands that directly contributes to the water quality and habitat components of the water body, including but not limited to upland areas immediately adjacent to the water body that directly contribute shade, nutrients, cover or debris.

Riparian Habitat Areas – areas adjacent to aquatic systems that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends 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. Widths shall be measured horizontally from the ordinary high water mark, or from the top of bank if the ordinary high water mark cannot be identified. 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 the aquatic ecosystem.

Riverine – relating to, formed by or resembling a river (including tributaries), stream, brook, etc.

Runoff – water that is not absorbed into the soil but rather flows along the ground surface following the topography.

Salmonid – a member of the fish family Salmonidae. Including but not limited to chinook, coho, chum, sockeye, and pink salmon; cutthroat, brook, brown, rainbow, and steelhead trout; kokanee; and native char (bull trout and Dolly Varden).

Sedimentation – the process of depositing materials from a liquid, especially in bodies of water.

Seismic Hazard Areas – means area[s] subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, debris flows, or lahars.

Setback – the distance an activity, building, or structure must be located from a critical area or its buffer.

Slope – an inclined earth surface, the inclination of which is expressed as the ratio of horizontal distance to vertical distance. In these regulations, the calculation of slope shall be specific to the area that will be disturbed by the proposed development and not to the entire parcel or lot. Slopes are generally expressed as a percentage; percentage of slope refers to a given rise in elevation over a given run in distance. A twenty percent slope, for example, refers to a twenty foot rise in elevation over a distance of one hundred feet. A one hundred percent slope equals a forty-five degree angle.

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

State Environmental Policy Act (SEPA) – Revised Code of Washington (RCW) Chapter 43.21C.

Steep Slopes – those slopes 30 percent or steeper within a vertical elevation change of at least 10 feet. A slope is defined by establishing its toe and top and is measured by averaging the inclination over at least 10 feet of vertical relief.

Stream – Those areas where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is an area which demonstrates clear evidence of the passage of water and includes but is not limited to bedrock channels, gravel beds, sand and silt beds and defined-channel swales. The channel or bed need not contain water year-round. This definition is not meant to include irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses unless they are used by salmon or used to convey streams naturally occurring prior to construction.

Turbidity – the cloudy condition of a body of water that contains suspended material, such as clay or silt particles, dead organisms, or small living plants or animals.

Unavoidable – adverse impacts that remain after all appropriate and practicable avoidance and minimization has been achieved.

Vegetation – plant life growing below, at, and above the soil surface.

Volcanic hazard areas – means areas subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, lahars, mudflows, or related flooding.

Water Quality – the physical characteristics of water within a critical area, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics.

Water Quantity – This term refers only to development and uses that are regulated under this chapter and that affect water quantity, such as impermeable surfaces and stormwater handling practices. Water quantity, for the purposes of this chapter, does not mean the withdrawal of ground water or the diversion of surface water pursuant to RCW 90.03.250 through RCW 90.03.340.

Watershed – the region drained by or contributing water to a stream, lake, or other body of water.

Water Table – the upper surface of the free groundwater in a zone of saturation except when separated by an underlying of groundwater by unsaturated material.

Water Typing System – the system used to classify freshwater surface water systems per WAC 22-16-030 and 031. Current regulations establish interim water typing (1-5) until fish habitat water type maps are available for permanent water typing (S, F, Np, Ns) (WAC 222-16-031).

Wetland or Wetlands – areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. 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.

Wetlands Rating System – the *Washington State Wetland Rating System for Eastern Washington: 2014 Update*, and the *Washington State Wetland Rating System for Western Washington: 2014 Update*, Washington State Department of Ecology, effective January 2015 or as amended.

19.03 WETLANDS

19.03.010 Purpose.

The purposes of this Chapter are to:

- A. Recognize and protect the beneficial functions performed by many wetlands, which include, but are not limited to, providing food and habitat for breeding, nesting, and/or rearing for fish and wildlife; recharging and discharging groundwater; contributing to stream flow during low flow periods; stabilizing streambanks and shorelines; storing storm and flood waters to reduce flooding and erosion; and improving water quality through biofiltration, adsorption, and retention and transformation of sediments, nutrients, and toxicants.
- B. Regulate land use to avoid adverse effects on wetlands and maintain the functions and values of wetlands throughout Skamania County.
- C. Establish review procedures for development proposals in and adjacent to wetlands.

19.03.020 Applicability.

The provisions of this Chapter apply to all regulated activities in wetlands or wetland buffers listed in 19.01.060 and all activities not specifically listed as exempt in 19.01.070 or 19.03.040.

For the purposes of this section, the division between eastern and western Washington is the Cascade Mountains from the international border to the top of Mount Adams, then the ridgeline dividing the White Salmon River drainage from the Lewis River drainage and the ridgeline dividing the Little White Salmon River drainage from the Wind River drainage to the Washington-Oregon state line (Washington Administrative Code [WAC] 222-16-010). Communities in western Washington include Washougal, Prindle, Skamania, North Bonneville, Stevenson, Carson, Stabler, and Home Valley. Communities in eastern Washington include Mill A, Willard, and Underwood.

19.03.040 Exemptions.

1. The following wetlands may be exempt from the requirements to avoid impacts (Chapter 19.01.090[B][1]), and they may be filled if the impacts are fully mitigated based on the remaining actions in Chapter 19.01.090(B)(2) through (6). If available, impacts should be mitigated through the purchase of credits from an in-lieu fee program or mitigation bank, consistent with the terms and conditions of the program or bank. In order to verify the following conditions, a critical area report for wetlands meeting the requirements in Chapter 19.03.060 must be submitted. Isolated wetlands are still regulated by Ecology. This provision does not exempt the applicant from securing authorization from Ecology to impact the types of wetlands listed below.
 - a. Exempt wetlands in Western Washington:
 - i. All isolated Category IV wetlands less than 4,000 square feet that:
 - (a) Are not associated with riparian areas or their buffers;
 - (b) Are not associated with shorelines of the state or their associated buffers;

- (c) Are not part of a wetland mosaic;
 - (d) Do not score 6 or more points for habitat function based on the Washington State Department of Ecology *Washington State Wetland Rating System for Western Washington: 2014 Update*; or as amended; and
 - (e) Do not contain a priority habitat or a priority area for a priority species identified by the Washington Department of Fish and Wildlife, or do not contain federally listed species or their critical habitat or species of local importance identified in Chapter 19.05.
- ii Wetlands less than 1,000 square feet that meet the above criteria and do not contain federally listed species or their critical habitat are exempt from the buffer provisions contained in this Chapter.
- b. Exempt wetlands in Eastern Washington:
 - i Small isolated wetlands in arid landscapes often have a higher value and perform greater functions than in other settings. However, in certain circumstances, applying the buffers in Tables 19.03 (1 through 3) may result in buffer areas that are greater than the area of the wetland being protected. In these instances, the City may consult with the Washington Department of Ecology (Ecology) to determine whether exemptions from mitigation sequencing and/or reduced buffers are warranted.
2. Existing and ongoing agricultural activities. Existing agricultural activities are encouraged to implement applicable best management practices (BMPs) contained in the latest editions of the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Field Office Technical Guide.
 3. Conservation, preservation, or restoration activities for soil, water, vegetation, fish, and/or other wildlife that improve or do not change the structure or functions of the existing wetland.
 4. The removal with hand labor and low-impact equipment of any invasive vegetation designated by the Skamania County Noxious Weed Control Program including but not limited to: English ivy (*Hedera helix*); Himalayan blackberry (*Rubus armeniacus*); evergreen blackberry (*Rubus laciniatus*); giant knotweed (*Polygonum sachalinense*); Himalayan knotweed (*Polygonum polystachyum*); and Japanese knotweed (*Polygonum cuspidatum*).

19.03.030 Regulations.

A. Wetland Delineation.

1. Wetlands shall be identified and delineated by a qualified wetland professional in accordance with WAC 173-22-035 and designated based on the definitions, methods and standards set forth in the currently approved federal wetland delineation manual and applicable regional supplements. All areas within the County meeting the wetland designation criteria in those procedure are hereby designated critical areas and are

subject to the provisions of this Chapter. Wetland delineations are valid for five years; after such date, the County shall determine whether a revision or additional assessment is necessary.

2. A full wetland delineation shall not be required when a project applicant submits a letter written by a qualified wetland professional that demonstrates that a proposed use or activity will be located outside of wetlands and any applicable wetland buffers. Wetland categories must be established in accordance with Chapter 19.03.040(B) and buffers must be established in accordance with Chapter 19.03.040(C) when a proposed use or activity is within 300 feet of the wetland boundary.

B. Wetland Rating.

1. The determination of wetland ratings will be based on the entire extent of wetlands, unrelated to property lines or ownership patterns. Wetlands shall be rated according to the *Washington State Wetland Rating System for Eastern Washington* and/or *Western Washington*, as amended, published by Ecology.
 - a. Wetlands in Western Washington shall be rated according to Ecology's wetland rating system, as set forth in the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Ecology Publication #14-06-029, or as revised and approved by Ecology), which contains the definitions and methods for determining whether the criteria below are met.
 - i. Category I wetlands are (1) wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/Washington Department of Natural Resources (DNR); (2) bogs; (3) mature and old-growth forested wetlands larger than 1 acre; and (4) wetlands that perform many functions well (scoring 23 points or more). Category I wetlands: (1) represent unique or rare wetland types; (2) are more sensitive to disturbance than most wetlands; (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions.
 - ii. Category II wetlands are wetlands with a moderately high level of functions (scoring between 20 and 22 points).
 - iii. Category III wetlands (1) are wetlands with a moderate level of functions (scoring between 16 and 19 points) and (2) can often be adequately replaced with a well-planned mitigation project.
 - iv. Category IV wetlands have the lowest levels of functions (scoring fewer than 16 points) and are often heavily disturbed.
 - b. Wetlands in Eastern Washington shall be rated in accordance with Ecology's wetland rating system, as set forth in the *Washington State Wetland Rating System for Eastern Washington* (Ecology Publication #04-06-015, or as revised and approved by Ecology), which contains the definitions and methods for determining whether the criteria below are met.

- i Category I wetlands are (1) alkali wetlands; (2) wetlands that are identified by scientists of the Washington Natural Heritage Program/Department of Natural Resources (DNR) as high quality wetlands; (3) bogs and calcareous fens; (4) mature and old-growth forested wetlands over 1/4 acre with slow-growing trees; (5) forests with stands of aspen; and (6) wetlands that perform many functions very well (scores of 22 points or more).
 - ii Category II wetlands are (1) forested wetlands in the floodplains of rivers; (2) mature and old-growth forested wetlands over 1/4 acre with fast-growing trees; (3) vernal pools; and (4) wetlands that perform functions well (scores between 19-21 points).
 - iii Category III wetlands are wetlands with a moderate level of functions (scores between 16-18 points) and can often be adequately replaced with a well-planned mitigation project.
 - iv Category IV wetlands have the lowest levels of functions (scores less than 16 points) and are often heavily disturbed.
2. Illegal modifications. Wetland ratings categories shall not change due to illegal modifications made by the applicant or with the applicant's knowledge.

C. Wetland Buffers, Averaging, and Reductions

1. Buffer Requirements. The following buffer widths have been established in accordance with the best available science. They are based on the category of wetland, the proposed land use intensity, and the habitat score as determined by a qualified wetland professional using Ecology's wetland rating system as set forth in the *Washington State Wetland Rating System for Eastern Washington* (Ecology Publication #04-06-015) or the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Ecology Publication #14-06-029), or these publications as revised and approved by Ecology as appropriate. The standard required widths of wetland buffers are shown in tables 19.03-1 through 3, and land use intensities are listed in Table 19.03-4.

Table 19.03-1. Buffers Required to Protect Habitat Functions in Category I and II Wetlands

Habitat Score in Rating Form	Low Intensity Use (ft)	Moderate Intensity Use (ft)	High Intensity Use (ft)
Western Washington¹			
5 points or less	50	85	100
6	75	120	150
7	100	155	200
8	125	190	250
9	150	225	300
Eastern Washington²			
5 points or less	50	75	100
6	70	95	125
7	80	110	150
8	90	135	175

Habitat Score in Rating Form	Low Intensity Use (ft)	Moderate Intensity Use (ft)	High Intensity Use (ft)
9	100	150	200

1 - Modified from tables 8C-6 and 8C-7, "Appendix 8-C: Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System."

2 - Modified from tables 8D-6 and 8D-7, "Appendix 8-D: Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Eastern Washington Wetland Rating System."

Table 19.03-2. Buffers Required to Protect Habitat Functions in Category III Wetlands

Habitat Score in Rating Form	Low Intensity Use (ft)	Moderate Intensity Use (ft)	High Intensity Use (ft)
Eastern and Western Washington¹			
3	40	60	80
4	45	70	90
5	55	80	110
6	65	100	130
7	75	110	150
8	If wetland scores 8 habitat points, use Table 19.03-1 for Category II buffers.		
9	If wetland scores 9 habitat points, use Table 19.03-1 for Category II buffers.		

1 - Modified from Table 8C-5, "Appendix 8-C: Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System."

2 - Modified from Table 8D-5, "Appendix 8-D: Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Eastern Washington Wetland Rating System."

Table 19.03-3. Buffers Required to Protect Habitat Functions in Category IV Wetlands¹

Habitat Score in Rating Form	Low Intensity Use (ft)	Moderate Intensity Use (ft)	High Intensity Use (ft)
Western Washington			
3 - 6	25	40	50
Eastern Washington			
3 - 6	25	40	50

1 Modified from Table 8C-4, "Appendix 8-C: Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System."

Table 19.03-4. Land Use Intensity Matrix¹

Intensity	Parks and Recreation	Streets and Roads	Stormwater Facilities	Utilities	Commercial/Industrial	Residential ²
Low	Natural fields and grass areas, viewing areas, split rail fencing	NA	Outfalls, spreaders, constructed wetlands, bioswales, vegetated detention basins, overflows	Underground and overhead utility lines, manholes, power poles (without footings)	NA	NA
Moderate	Impervious trails, engineered fields, fairways	Residential driveways and access roads	Wet ponds	Maintenance access roads	NA	Single-family with density less than 1 unit per acre
High	Greens, tees, structures,	Public and private streets,	Maintenance access roads,	Paved or concrete	All site development	Single- and multifamily

Intensity	Parks and Recreation	Streets and Roads	Stormwater Facilities	Utilities	Commercial/Industrial	Residential²
	parking, lighting, concrete or gravel pads, security fencing	security fencing, retaining walls	retaining walls, vaults, infiltration basins, sedimentation forebays and structures, security fencing	surfaces, structures, facilities, pump stations, towers, vaults, security fencing, etc.		with density higher than 1 unit per acre

1 The County Planning staff shall determine the intensity categories that apply to proposals should their characteristics not be specifically listed in Table 19.03-4.

2 Measured as density averaged over a site, not individual lot sizes.

2. When impervious surfaces from previous development completely functionally isolate the buffer from the wetland, the wetland buffer shall extend from the edge of the boundary of the delineated wetland to the impervious surfaces.
 3. Any wetland created as compensation for an approved wetland alteration shall have the standard buffer required for the category, habitat score, and land use intensity of the created wetland expected at the end of the monitoring period. Wetlands to be created shall be located such that the buffer associated with the new wetland does not cross onto adjacent property, unless the same property owner owns the adjacent property.
 4. Buffer averaging. Buffer averaging is allowed in accordance with 19.01.080(D)(5).
 5. Measurement of Wetland Buffers (see 19.01.080(D)).
 6. Buffer Maintenance. Except as otherwise specified or allowed in accordance with this Chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, the removal of invasive non-native weeds is required for the duration of the monitoring period (19.01.090).
 7. Impacts to Buffers. Requirements for the compensation for impacts to buffers are outlined in 19.03.050 of this Chapter.
- D. Development Standards within Wetlands and Buffers. When permitted through a critical areas permit or variance, development within wetlands and buffers is subject to the following standards subject to preparation of a critical areas report including a mitigation plan for unavoidable impacts to critical areas or buffers.
1. Subdivisions. In the case of all subdivisions, a wetland and its buffer must be set aside in a non-buildable open space tract or conservation easement. Residential density may be transferred out of critical areas in accordance with the cluster development standards in SCC 21.70.150..
 2. Public roads and utilities.
 - a. The expansion of the footprints of public roads and utilities may occur within wetland and buffer areas not to exceed locally established levels of service, and to provide for and protect public safety when no lesser impacting option is feasible and the width of the corridor is minimized to the maximum extent possible.

- b. Public and private utility corridors may be allowed within wetland buffers only for Category II, III, and IV wetlands when no lesser impacting alternative alignment is feasible, and wetland and wetland buffer functions and values will not be degraded. Utilities, whenever possible, shall be constructed in existing improved roads, drivable surfaces or shoulders subject to compliance with road maintenance BMPs, or within existing utility corridors. Otherwise, corridor alignment, construction, restoration, and maintenance shall adhere to the following criteria:
 - i Corridor alignment shall be limited to the outer 25 percent of the buffer width, except when crossing a Category IV wetland and its buffer; or if installed using drilling techniques;
 - ii Corridor construction and maintenance shall maintain and protect the ecological functions of the wetland and the buffer;
 - iii Corridors shall be fully revegetated with appropriate native vegetation upon completion of construction; and
 - iv Utilities requiring maintenance roads shall be prohibited in wetlands and wetland buffers unless the following criteria are met:
 - (a) There are no lesser impacting alternatives;
 - (b) Any required maintenance roads shall be no wider than 15 feet. Roads shall be located as close as is practicable to the utility to minimize disturbances; and,
 - (c) The maintenance road shall be constructed of pervious materials and designed to maintain and protect the ecological functions of the wetland and its buffer.
 - c. Drilling for utilities/utility corridors. When drilling under a wetland for the installation of utilities or utility corridors, entrance and exit portals must be located completely outside the wetland buffer, provided that the drilling does not interrupt the groundwater connection to the wetland or the percolation of surface water down through the soil column. Studies by a hydrologist are necessary to determine whether the groundwater connection to the wetland or the percolation of surface water down through the soil column will be disturbed.
3. Stormwater management facilities. A wetland or its buffer can be physically or hydrologically altered to meet the requirements of a low impact development, runoff treatment, or flow control BMP if ALL of the following criteria are met:
- a. The wetland is classified as a Category IV or a Category III wetland with a habitat score of 3-5 points; and
 - b. Functions and values of the wetland are protected; and
 - c. The wetland does not contain a breeding population of any native amphibian species; and

- d. The hydrologic functions of the wetland can be improved as outlined in questions 3, 4, and 5 of Chart 4, and questions 2, 3, and 4 of Chart 5 in the "Guide for Selecting Mitigation Sites Using a Watershed Approach" (available here: <http://www.ecy.wa.gov/biblio/0906032.html>); or the wetland is part of a priority restoration plan that achieves restoration goals identified in a shoreline master program or other local or regional watershed plan; and
 - e. The wetland lies in the natural routing of the runoff, and the discharge follows the natural drainage; and
 - f. All regulations regarding stormwater and wetland management are followed, including, but not limited to, local and state wetland and stormwater codes, manuals, and permits; and
 - g. Modifications that alter the structure of a wetland or its soils will require permits. Existing functions and values that are lost will have to be compensated/replaced.
4. Passive recreation facilities. If not using the buffer flexibility options in 19.01.080, the following uses may be permitted within a wetland buffer, provided they are not prohibited by any other applicable law and are conducted in a manner that minimizes impacts to the buffer and adjacent wetland:
- a. Walkways and trails may be permitted provided that they are generally parallel to the perimeter of the wetland, are located in the outer 25 percent of the buffer area, are constructed with a surface that does not interfere with soil permeability, and their surface is no more than 5 feet wide. The design and construction of walkways and trails shall avoid impacts to established native woody vegetation. Raised boardwalks using non-treated materials are acceptable.
 - b. Wildlife viewing structures. Wildlife viewing structures may be permitted provided they are associated with a walkway or trail, are located in the outer 25 percent of the buffer area, are constructed with a surface that does not interfere with soil permeability, and their surface is no more than 8 feet wide. The design and construction of wildlife viewing structures shall avoid impacts to established native woody vegetation. Raised platforms utilizing non-treated pilings are acceptable.
 - c. All removed plant material shall be taken away from the site and disposed of appropriately; plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species.
 - d. If invasive vegetation is removed from wetlands or other water bodies, only chemical herbicides approved by the U.S. Environmental Protection Agency for use in aquatic environments may be employed.
 - e. Aquatic herbicides can be used or applied only by certified applicators or persons under the direct supervision of a certified applicator, and only for those uses covered by the certified applicator's license category. Applicators are required to be

permitted under Ecology’s noxious weed control permit. Applicators shall comply with all conditions of the noxious weed control permit.

- f. Revegetation with appropriate native species at natural densities is allowed and encouraged in conjunction with removal of invasive plant species.

19.03.070 Wetland Mitigation.

A. Protection of wetland functions and values shall occur as a result of the overall project. Only unavoidable wetland impacts will be authorized. In addition to the requirements in 19.01.090 “General Mitigation Requirements for All Critical Areas,” the following mitigation measures to minimize and reduce wetland impacts shall be required:

- 1. Mitigation shall achieve equivalent or greater biological functions. Mitigation plans shall be consistent with Ecology’s publication *Wetland Mitigation in Washington State: Part 2 - Developing Mitigation Plans*, 2006 or as revised.

Table 19.03-5. Standard Wetland Mitigation Ratios

Wetland to be Replaced	Reestablishment or Creation	Rehabilitation	Reestablishment or Creation and Rehabilitation	Reestablishment or Creation and Enhancement	Enhancement
Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I, Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I, Based on Score for Functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I, Natural Heritage Site	Not Considered Possible	6:1 Rehabilitate a Natural Heritage Site	N/A	N/A	Case-by-Case

B. Requirements for compensatory mitigation.

- 1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1* (Ecology Publication #06-06-011b, March 2006 or as revised), and *Selecting Wetland Mitigation Sites Using a Watershed Approach (Eastern Washington)* (Ecology Publication #10-06-07, November 2010) or *Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)* (Ecology Publication #09-06-032, December 2009).
- 2. Mitigation ratios for permittee-responsible mitigation shall be consistent with Table 19.03-5 of this Chapter. Requiring a greater area for mitigation than the wetland area

that will be impacted helps offset the risk that compensatory mitigation will fail as well as the temporal loss of functions that may occur.

3. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Eastern Washington: Final Report” (Ecology Publication #11-06-015, August 2012) or “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report” (Ecology Publication #10-06-011, March 2011), consistent with 19.03.050(G)(2) of this Chapter.
- C. Compensating for lost or affected functions. Compensatory mitigation shall address the functions affected by the proposed project, with the intention of achieving functional equivalency or the improvement of functions. The goal shall be for the compensatory mitigation to provide wetland functions similar to those lost, except when either:
1. The lost wetland provides minimal functions, and the proposed compensatory mitigation action(s) will provide equal or greater functions, or will provide functions shown to be limiting within a watershed through a formal Washington watershed assessment plan or protocol; or
 2. Out-of-kind replacement of wetland type or functions will best meet watershed goals formally identified by the County, such as replacement of historically diminished wetland types
- D. Preference of mitigation actions. Mitigation actions that require compensation shall occur in the following order of preference:
1. Wetland mitigation banks. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the mitigation bank instrument. Use of credits from a wetland mitigation bank certified under WAC 173-700 is allowed if:
 - a. The County determines that the use of credits would provide appropriate compensation for the proposed impacts; and
 - b. The impact site is located in the service area of the bank; and
 - c. The proposed use of credits is consistent with the terms and conditions of the certified mitigation bank instrument; and
 - d. Replacement ratios for projects using bank credits is consistent with replacement ratios specified in the certified mitigation bank instrument.
 2. In-lieu fee mitigation: To help implement off-site mitigation, the County may develop an in-lieu fee program. It shall be developed and approved through a public process and be consistent with federal rules, state policy regarding in-lieu fee mitigation, and state water quality regulations. An approved in-lieu-fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor, a governmental or non-profit natural resource management entity.

Credits from an approved in-lieu-fee program may be used when ALL of the following apply:

- a. The County determines that these credits would provide environmentally appropriate compensation for the proposed impacts; and
 - b. The proposed use of credits is consistent with the terms and conditions of the approved in-lieu-fee program instrument; and
 - c. Projects using in-lieu-fee credits shall have debits associated with the proposed impacts calculated by the applicant's qualified wetland professional using the credit assessment method specified in the approved instrument for the in-lieu-fee program; and
 - d. The impacts are located within the service area specified in the approved in-lieu-fee instrument.
3. Permittee-responsible mitigation. In this situation, the permittee or responsible party performs the mitigation after the permit has been issued and is ultimately responsible for implementation and success of the mitigation. Permittee-responsible mitigation may occur at the site of the permitted impacts or at an off-site location within the same watershed. Permittee-responsible mitigation shall be used only if the applicant's qualified wetland professional demonstrates to the approval authority's satisfaction that the proposed approach is ecologically preferable to the use of a bank or in-lieu fee program, consistent with the criteria in this section.
- a. Restoration: For the purpose of tracking net gains in wetland acres, restoration is divided into:
 - i Reestablishment: The goal of reestablishment is to return the natural or historic functions to a former wetland.
 - ii Rehabilitation: The goal of rehabilitation is to repair the natural or historic functions of an existing degraded wetland
 - b. Establishment (Creation): The goal of establishment is to develop a wetland from an upland or deepwater site where a wetland did not previously exist
 - c. Enhancement. The goal of enhancement is to heighten, intensify, or improve specific functions, or to change the growth stage or composition of existing vegetation with a wetland.
 - d. Protection/maintenance (Preservation). Removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes appropriate legal and physical mechanisms (such as recording conservation easements and providing structural protections like fences and signs and repairing water control structures). Preservation does not result in a gain of wetland acres. Permanent protection of a Category I or II wetland and its associated buffer at risk of degradation can be used only if:

- i The County determines that the proposed preservation is the best mitigation option.
 - ii The proposed preservation site is under threat of undesirable ecological change due to permitted, planned, or likely actions that will not be adequately mitigated under existing regulations.
 - iii The area proposed for preservation is of high quality or critical for the health of the watershed or basin due to its location. Some of the following features may be indicative of high-quality sites:
 - (a) Category I or II wetland rating (using the appropriate wetland rating system for eastern or western Washington);
 - (b) Rare or irreplaceable wetland type (for example, bogs, mature forested wetlands, estuarine wetlands) or aquatic habitat that is rare or a limited resource in the area;
 - (c) Habitat for priority or locally important wildlife species;
 - (d) Provides biological and/or hydrological connectivity; and
 - (e) Priority sites in an adopted watershed plan.
 - e. Permanent preservation of the wetland and buffer will be provided through a conservation easement or tract held by an appropriate natural land resource manager (such as a land trust) that provides permanent preservation of the wetland and buffer.
 - f. The County may approve other legal and administrative mechanisms in lieu of a conservation easement if it determines they are adequate to protect the site.
 - g. Ratios for preservation in combination with other forms of mitigation generally range from 10:1 to 20:1, as determined on a case-by-case basis, depending on the quality of the wetlands being impacted and the quality of the wetlands being preserved. Ratios for preservation as the sole means of mitigation generally start at 20:1.
- E. Location of compensatory mitigation. Compensatory mitigation actions shall generally be conducted within the same sub-drainage basin and on the site of the alteration except when the applicant can demonstrate that off-site mitigation is ecologically preferable. The following criteria will be evaluated when determining whether the proposal is ecologically preferable. When considering off-site mitigation, preference should be given to using alternative mitigation, such as a mitigation bank, an in-lieu-fee program, or advance mitigation.
- 1. There are no reasonable opportunities on site or within the sub-drainage basin (e.g., on-site options would require elimination of high-functioning upland habitat), or opportunities on site or within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the

impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity).

2. On-site mitigation would require elimination of high-quality upland habitat.
 3. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the altered wetland.
 4. Off-site locations shall be in the same sub-drainage basin unless:
 - a. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the County and strongly justify location of mitigation at another site; or
 - b. Credits from a state-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the certified bank instrument; or
 - c. Fees are paid to an approved in-lieu fee program to compensate for the impacts.
 5. The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland.
- F. Timing for compensatory mitigation shall comply with 19.01.090(E)(4).
- G. Compensatory mitigation plan. When a project involves wetland and/or buffer impacts, a compensatory mitigation plan prepared by a qualified professional meeting the following minimum standards shall be required:
1. Wetland critical area report. A critical area report for wetlands must accompany or be included in the compensatory mitigation plan and include the minimum parameters described in Minimum Standards for Wetland Reports (19.03.050) of this Chapter.
 2. Compensatory mitigation report. The report must include a written report and plan sheets that must contain, at a minimum, the following elements. Complete guidance can be found in *Wetland Mitigation in Washington State— Part 2: Developing Mitigation Plans* (Version 1) (Ecology Publication No. 06-06-011b, March 2006, or as revised).
 - a. In addition to the requirements of 19.01.090(F), the written report must contain, at a minimum:
 - i Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands.
 - ii Description of the existing wetland and buffer areas proposed to be impacted. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding lands uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on Wetland Ratings (19.03.030 of this Chapter).

- iii Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions.
 - iv Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for created or restored compensatory mitigation areas. Include illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions.
 - v A description of the proposed actions for compensation of impacts to wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands.
 - vi A description of the proposed mitigation construction activities and timing of activities.
 - vii Performance standards (measurable standards for years post-installation) for upland and wetland communities, a monitoring schedule, and a maintenance schedule and actions proposed by year.
 - viii A discussion of ongoing management practices that will protect wetlands after the development project has been implemented, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands).
 - ix A financial guarantee as per 19.01.080.
 - x Proof of establishment of Notice on Title for the wetlands and buffers on the project site, including the compensatory mitigation areas.
- b. The scaled plan sheets for the compensatory mitigation must contain, at a minimum:
- i Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions.
 - ii Existing topography, ground-proofed, at 2-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Also existing cross sections of on-site wetland areas that are proposed to be impacted, and cross section(s) (estimated 1-foot intervals) for the proposed areas of wetland or buffer compensation.
 - iii Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes.

- iv Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this Chapter.
 - v A planting plan for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, total number of each species by community type, and timing of installation.
- H. Buffer mitigation ratios. Impacts to buffers shall be mitigated at a minimum 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.
- I. Protection of the mitigation site. The area where the mitigation occurred and any associated buffer shall be located in a critical area tract or a conservation easement consistent with 19.01.090.
- J. Monitoring. Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for a period less than 5 years. If a scrub-shrub or forested vegetation community is proposed, monitoring may be required for 10 years or more. Monitoring shall be completed consistent with 19.01.090(G).
- K. Advance mitigation. Mitigation for projects with pre-identified impacts to wetlands may be constructed in advance of the impacts if the mitigation is implemented according to federal rules, state policy on advance mitigation, and state water quality regulations consistent with "Interagency Regulatory Guide: Advance Permittee Responsible Mitigation" (Ecology Publication #12-06-015, December 2012).
- L. Alternative Mitigation Plans. The Administrator may approve alternative wetland mitigation plans that are based on best available science. Alternative mitigation proposals must provide an equivalent or better level of protection of wetland functions and values than would be provided by the strict application of this Chapter.

The Administrator shall consider the following for approval of an alternative mitigation proposal:

1. The proposal uses a watershed approach consistent with "Selecting Wetland Mitigation Sites Using a Watershed Approach (Eastern Washington)" (Ecology Publication #10-06-07, November 2010) or "Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)" (Ecology Publication #09-06-032, December 2009).
2. Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas.
3. Mitigation according to 19.01.090 is not feasible due to site constraints such as parcel size, stream type, wetland category, or geologic hazards.
4. There is clear potential for success of the proposed mitigation at the proposed mitigation site.

5. The plan shall contain clear and measurable standards for achieving compliance with the specific provisions of the plan. A monitoring plan shall, at a minimum, meet the provisions in 19.03.050(K) of this Chapter.
6. The plan shall be reviewed and approved as part of the overall approval of the proposed use.
7. A wetland of a different type may be justified based on regional needs or functions and values; the replacement ratios may not be reduced or eliminated unless the reduction results in a preferred environmental alternative.
8. Mitigation guarantees shall meet the minimum requirements as outlined in 19.03.050(H)(2)(a)(ix).
9. Qualified professionals in each of the critical areas addressed shall prepare the plan.
10. The County may consult with agencies with expertise and jurisdiction over the critical areas during the review to assist with the analysis and identification of appropriate performance measures that adequately safeguard critical areas.

19.03.080 Report requirements.

- A. In addition to the general requirements for critical areas reports provided under Chapter 19.01, wetland critical area reports, prepared by a qualified professional, shall include items listed below. The Administrator has the authority to determine the applicability of individual critical areas report requirements and may waive report requirements determined to be unnecessary on a case-by-case basis.
 1. On the site map:
 - a. Wetlands shall be identified as delineated by a qualified wetland professional in accordance with WAC 173-22-035.
 - b. The location of any proposed wetland mitigation area(s) shall be identified.
 - c. The location of any proposed wetland or buffer alteration or fill shall be shown.
 2. In the report:
 - a. A statement specifying the accuracy of the report and all assumptions made and relied upon.
 - b. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.
 - c. A description of the methodologies used to conduct the wetland delineations, wetland ratings, or impact analyses including references.
 - d. Description of the wetland by classification per the *Washington State Wetland Rating System for Eastern Washington* (Ecology Publication No. 14-06-030 or as revised) or *Western Washington* (Ecology Publication No.14-06-029 or as revised).
 - e. General condition of the wetland.

- f. Description of vegetation species and community types present in the wetland and surrounding buffer.
 - g. Description of soil types within the wetland and the surrounding buffer using the USDA Soil Conservation Service soil classification system.
- B. Description of hydrologic regime and related findings.
- C. A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:
- 1. Maps (to scale) depicting delineated and surveyed wetland and required buffers on-site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates).
 - 2. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.

DRAFT

19.04 CRITICAL AQUIFER RECHARGE AREAS

19.04.010 Applicability.

Critical aquifer recharge area (CARA) regulations apply to areas that have a critical recharging effect on aquifers used for drinking water as shown on the County's CARA mapping available on the internet; and to wellhead protection areas mapped and designated by the Washington State Department of Health.

19.04.030 Regulations.

A. Designation and Classification.

1. CARAs are those areas with a critical recharging effect on aquifers used for potable water as defined by Washington Administrative Code (WAC) 365-190-030(3). CARAs have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of groundwater resources or contribute significantly to the replenishment of groundwater. These areas include the following:
 - a. Wellhead Protection Areas (WHPAs). WHPAs may be defined by the boundaries of the 10-year time of groundwater travel, or boundaries established using alternate criteria approved by the Washington State Department of Health in those settings where groundwater time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135.
 - b. Moderate or Highly Susceptible or Vulnerable Recharge Areas. Aquifer recharge areas that are moderately or highly susceptible or vulnerable to degradation or depletion because of hydrogeologic conditions as delineated by a study prepared in accordance with Washington State Department of Ecology guidelines.
 - ~~b.c.~~ Sole Source Aquifers. Sole source aquifers are areas that have been designated by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Safe Drinking Water Act.
 - ~~e.d.~~ Special Protection Areas. Special protection areas are those areas defined by WAC 173-200-090(3).

B. ~~Exempt Activities in CARAs~~ Permitted, ~~p~~ Prohibited, and ~~e~~ Exempt ~~u~~ Uses within CARAs.

The activities proposed in Table 19.04-1 require a permit or are prohibited within critical aquifer recharge areas as indicated in the table. Activities not listed in the table are exempt and are not required to undergo critical areas review or obtain a critical areas permit. Specific standards for some listed uses ~~each use listed in the table~~ are located in Section 19.04.050. ~~Activities not listed in the table are exempt and are not required to undergo critical areas review or obtain a critical areas permit.~~

Table 19.04-1. Restricted Uses and Activities within Critical Aquifer Recharge Areas

Restricted Uses and Activities	Permitted (P)/ Prohibited (X) Within WHPAs	Within CARAs, Outside WHPAs	Applicable Standards
Aboveground tanks and distribution systems	P	P	19.04.050(A)
Asphalt plants/cement and concrete plants	PX (see 19.04.050(B))	P	19.04.050(B)
Biosolid application	P	P	19.04.050(C)
Boat refinishing	P	P	
Cemeteries	PX (see 19.04.050(D))	P	19.04.050(D)
Chemical manufacturing/processing, mixing, and remanufacturing	PX	P	19.04.050(E)
Chemical storage facilities (not including fuel)	P	P	19.04.050(E)
Chemical/hazardous waste reprocessing and disposal	X	X	19.04.050(K)
Commercial uses that do not use hazardous materials or generate hazardous waste	P	P	
Commercial and industrial uses that generate hazardous materials or generate hazardous waste that use or generate hazardous waste or materials as described in WAC 173-303; including but not limited to, furniture staining, stripping, repair, and refinishing; hardware, lumber, and parts stores; medical/dental/veterinary offices; photo processing/printing; printing and publishing	P (see 19.04.050(E))	P	19.04.050(E)
Composting facilities, (except home composting)	PX (see 19.04.050(F))	P	19.04.050(F)
Dry cleaner facilities	PX (see 19.04.050(G))	P	19.04.050(G) J
Electroplating, metal plating	PX	P	
Fuel dispensing, including gas stations	P (see 19.04.050(H))	P	19.04.050(H)
Funeral facilities (except crematory facilities)	PX	P	
(Unattended) Gasoline and diesel powered generators	P	P	19.04.050(I)
Golf courses, parks, athletic fields, playgrounds, campgrounds/RV parks, and landscaping more than one acre	P	P	19.04.050(J)
Greenhouses and nurseries - eCommercial, nursery, wholesale, or retail	P (see 19.04.050(J))		19.04.050(J)
Hazardous materials	P		19.04.050(K)
(New) hazardous waste transfer and storage facilities, including radioactive wastes as defined in Chapter 43.200 RCW	PX	P	19.04.050(E and K)
Industrial uses, including but not limited to, battery processing, reprocessing, and storage; food processing facilities; tanning; textile dyeing;	P		

Restricted Uses and Activities	Permitted (P)/ Prohibited (X) Within WHPAs	Within CARAs, Outside WHPAs	Applicable Standards
wood/pulp/paper processing, and metal finishing, which generate hazardous waste			
Infiltration of reclaimed water (application to the land's surface above agronomic rates)	X	X	<u>19.04.050(Q)</u>
Injection wells – Class II (Chapter 173-218 WAC)	X	X	
Landfill – demolition (inert), municipal sanitary waste, solid waste, wood waste, and hazardous waste	X	X	<u>19.04.050(E)</u>
Machine shops, fabricating, metal processing with etchers and chemicals	P (see <u>19.04.050(L)</u>)	P	<u>19.04.050(E)</u>
Manufacturing – electrical/electronic	P	P	<u>19.04.050(E)</u>
<u>Metal plating</u>	X	P	<u>19.04.050(L)</u>
<u>Mineral extraction – Gravel and Sand</u>	X	P	<u>19.04.050(M)</u>
Mining (coal and minerals, gravel, or sand)	P (see <u>19.04.050(M)</u>)	P	
<u>On site sewage disposal (exceeding 1,500 gallons capacity)</u>	P*	P*	<u>19.04.050(N)</u>
Pesticide/fertilizer storage facilities	P	P	<u>19.04.050(E and K)</u>
Petroleum products refining and reprocessing	PX	P	<u>19.04.050(E)</u>
Pier foundations	P (see <u>19.04.050(O)</u>)	P	<u>19.04.050(O)</u>
Pipelines- liquid petroleum products or other hazardous liquid transmission	P (see <u>19.04.050(P)</u>)	P	<u>19.04.050(P)</u>
Railroad yards-cargo transfer areas	P		<u>19.04.050(E)</u>
<u>Reclaimed water</u>	P		<u>19.04.050(Q)</u>
Research laboratories/facilities-chemical or biological	P		<u>19.04.050(E)</u>
Sawmills	PX (see <u>19.04.050(R)</u>)	P	<u>19.04.050(R)</u>
<u>Sewage disposal – on site (exceeding 1,500 gallons capacity)</u>	P (see <u>19.04.050(N)</u>)		
Sewage lift stations	P	P	<u>19.04.050(E)</u>
Solid waste processing, handling, transferring, or recycling	P (see <u>19.04.050(S)</u>)	P	<u>19.04.050(S)</u>
Storage tanks – aboveground (hazardous materials)	P (see <u>19.04.050(A)</u>)		
Storage tanks-underground	P (see <u>19.04.050(U)</u>)		
Storage tanks, residential (e.g., propane and oil tanks not to exceed 1,000 gallons)	P (see <u>19.04.050(A)</u>)		
Stormwater facilities /discharges, not including injection wells (not including injection wells)	P (see <u>19.04.050(T)</u>)	P	<u>19.04.050(T)</u>

Restricted Uses and Activities	Permitted (P)/ Prohibited (X) Within WHPAs	Within CARAs, Outside WHPAs	Applicable Standards
Taxidermy	P	P	199.04.050(E) J
Unattended gas powered portable generators	P (see 19.04.050(I))		19.04.050(I)
Underground storage tanks and vaults (residential and hazardous materials)	P		19.04.050(U)
Utility substations	P		19.04.050(E)
Vehicle wrecking/junk/scrap/salvage yards	P (see 19.04.050(W))		19.04.050(V)
Vehicle and boat repair/service garages/body shops	P (see 19.04.050(V))		19.04.050(W)
Wastewater treatment or reuse facilities/recycling satellite plant, not including injection/infiltration of reclaimed water	P (see 19.04.050(O))		19.04.050(E)
Wood and wood-products preserving/treating	X	P	19.04.050(X)
All other activities involving the use and handling of hazardous materials or generating hazardous materials by their activities or actions in quantities exceeding the thresholds listed in Skamania County Code (SCC) 19.04.050(MK)	PX	P	19.04050(K)
Other new and existing uses identified by the County as posing a risk to ground water quality	P	P	

*Permitting is through the County Community Health Department's on-site septic system permitting process. No critical areas permit is required.

19.04.040 CARA – General standards.

The following requirements apply, as applicable, to all uses and activities in Table 19.04-1 that are not prohibited.

- A. The Administrator shall evaluate hydrogeological reports required pursuant to this chapter to determine the proposed project's potential impacts to groundwater and surface water. This evaluation shall include, if applicable, evaluation of the project's potential impact on base flows of streams and the quantity and timing of groundwater flows sustaining wetlands.
- B. The uses and activities listed in Table 19.04-1 shall not be allowed in a CARA if the approval authority determines, in consultation with others having expertise or jurisdiction, that the proposed use poses a risk to groundwater quality, consistent with the provisions of this chapter.
- C. Best Management Practices. If warranted to protect groundwater, the Administrator shall require applicants for new, expanded, and altered uses listed in Table 19.04-1 that require a County critical areas permit to use best management practices (BMPs), including all known, available, reasonable treatments, to ensure the highest degree of aquifer protection.

In this case, the applicant shall submit a Level 1 hydrogeological report consistent with Skamania County Code (SCC) 19.01.060 identifying the appropriate BMPs and describing how they will be employed to prevent degradation of groundwater quality. The report shall be prepared by or under the direction of a qualified person with demonstrated expertise in the industry or field. The report shall include all necessary technical data, drawings, calculations, and other information to describe the proposed application of BMPs. If necessary, the Administrator will review the report with technical experts at the applicant's expense.

D. Mitigation of Impacts.

1. The Administrator may condition the approval of a proposed use or activity if it is determined to be warranted in order to protect groundwater quality, maintain stream flows and temperatures sufficient to sustain anadromous and native fish, and maintain the volume and timing of groundwater flows sustaining wetlands and dependent plants and wildlife.
2. The Administrator may deny proposed wells or require mitigative measures (e.g., methods of prevention and control) for any use as necessary to preserve adequate groundwater quality and quantity for existing users of the aquifer that do not have an alternative water source. This subsection shall not affect any right to use or appropriate water under state or federal law.

E. Decommissioning Underground Tanks. Underground storage tanks storing hazardous materials in the 1-year time of travel zone for CARAs that do not meet current state standards (WAC 173-360 and the International Fire Code [IFC],) shall be decommissioned or removed consistent with applicable regulations within 1 year of being notified by the Administrator, unless specified otherwise.

F. Expansion of ~~Prohibited~~ Existing Uses in CARAs.

1. Existing ~~u~~Uses prohibited by Table 19.0104-1 in CARAs shall not be expanded unless the applicant demonstrates that all equipment/facilities involving hazardous materials will be brought into compliance with current standards and therefore pose less risk of groundwater contamination than the existing use.
2. Applicants for any proposed expansion of an existing allowable use in CARAs (see Table 19.0104-1) that uses, stores, handles, or disposes of hazardous materials above the minimum quantities referenced in SCC 19.01.040(M) shall submit a BMP report, consistent with subsection (C) above and SCC 19.01.060, and a hazardous materials management plan for County review and approval. The Administrator will review the submitted materials and determine whether the proposed expansion shall be approved, denied, or approved with conditions, as necessary, to ensure adequate groundwater protection.

G. A development proposal will be considered unacceptable if a hydrogeological report indicates that a groundwater maximum contaminant level will be violated because of proposed development.

- H. A development proposal will be considered unacceptable if a hydrogeological report concludes that it will reduce the assimilative capacity of the aquifer by more than 10 percent for a contaminant of concern.
- I. Known spills, leakage, or other release of hazardous materials shall be remediated as determined by the Administrator. Unless otherwise specified, remediation activities shall begin within 90 days of discovery of release.

19.04.050 CARA – Use-specific standards.

A. Aboveground tanks and distributions systems.

Aboveground tanks and associated distribution systems for the storage or conveyance of hazardous materials, sewage sludge, fertilizers, or other chemical or biological substances defined as hazardous or dangerous waste in WAC 173-303 are subject to the following:

1. Compliance with State and County Requirements. New aboveground tanks and distribution systems must comply with WACs 173-303 and 173-360 and the IFC.
2. Secondary Containment. New aboveground tanks and distribution systems that will contain a hazardous material shall either be double walled or have a separate, impervious secondary containment system constructed around and under the tank/distribution system. The containment system shall be covered or otherwise designed so it does not collect precipitation or stormwater runoff. Secondary containment systems shall be sized to hold at least 110 percent of the largest tank's capacity and shall be designed and constructed with materials that are compatible with the substance to be stored in the tank.
3. Leak Detection. Leak detection devices shall be required for all double-walled tanks and, when possible, for other tanks.
4. Waiver. The Administrator may grant a waiver from one or more of the above requirements upon finding that the proposed aboveground storage facility would not create a risk to groundwater quality.
5. Residential aboveground storage tanks and vaults are regulated by the IFC.

B. Asphalt plants/concrete plants.

1. Applicants for asphalt plants or concrete plants shall submit the following, in addition to other material required by this chapter: (1) the location of wells and wellhead protection areas within 1 mile downgradient of the proposed ~~site or the two-day time-of-travel area to be disturbed, if known, whichever is greater~~; and (2) a characterization of the proposed activity, including a description of the industrial process, storage of materials, and discharge of water.
2. All process water from production, pouring, and equipment cleaning activities shall be discharged to a sump or a recycling system. Process water treatment or materials shall use the least toxic products and raw materials available.
3. The applicant shall submit a hazardous waste management plan.

4. The Administrator may require monitoring wells to the extent necessary to determine if pollution associated with the permitted activity is occurring, periodic monitoring, and remedial action if the monitoring reveals that groundwater contamination is occurring.

C. Biosolid application.

Biosolid application and uses shall be regulated by the Washington Department of Ecology (Ecology) and meet all applicable federal and state standards, including WAC 173-308.

D. Cemeteries.

Applicants for a cemetery shall submit a hydrogeological report evaluating the risk the proposed cemetery poses to groundwater and surface water. The Administrator may condition the project as necessary to protect groundwater quality. The Administrator shall deny the proposed cemetery if it is determined that it would likely contaminate potable groundwater supplies.

E. Commercial and industrial uses – General standards.

Commercial and industrial uses and activities are allowed in CARAs subject to the following standards, as applicable:

1. Where floor drains are allowed, any floor drains in areas where hazardous materials are used, stored, or otherwise present shall have a removable lip or barrier that will prevent spilled hazardous material from entering the drain. The Administrator may require that a sump or other device be used to ensure that hazardous material does not drain to the soil, sewage disposal system, or a waterbody.
2. Areas where hazardous materials are used or stored shall not drain to the soil, a stormwater system, waterbody, or a sewage disposal system. The Administrator may require that a sump or other device, as appropriate to address the contaminants of concern, be used to ensure protection of groundwater quality.
3. All vehicle and equipment washing must be done in a self-contained area (e.g., with recycling system) designed to ensure that hazardous materials do not reach the soil, a waterbody, or a sewage disposal system. Water used in wash down areas shall be treated to remove contaminants prior to discharge (see WAC 173-216 and Vehicle and Equipment Washwater Discharges/Best Management Practices Manual, Ecology publication 95-056, as amended).
4. An integrated pest management plan shall be drafted. The plan shall be implemented upon approval by the Administrator. The County may periodically verify compliance with the approved plan.
5. All new commercial and industrial land uses that involve the use, handling, storage, disposal, or transportation of hazardous materials or dangerous/extremely dangerous wastes, as defined in WAC 173-303, shall be required to prevent contact between the aforementioned materials and stormwater. This requirement may not apply to materials applied in an outdoor setting as part of an approved activity's landscaping maintenance plan. This includes, but is not limited to, gas stations, fuel distributors, car/truck washes,

trucking companies, asphalt plants and paint shops. The generation of hazardous materials or dangerous waste is separated into two categories:

- a. A small quantity generator can generate up to 220 pounds of dangerous waste or up to 2.2 pounds of certain pesticides or poisons, each month. Small quantity generators can accumulate up to 2,200 pounds of dangerous waste or 2.2 pounds of certain pesticides or poisons, at their site before sending the waste off site for proper disposal or recycling.
 - b. Businesses that generate more than 220 pounds of hazardous wastes during any month must comply with the Washington State Dangerous Waste Regulations, WAC 173-303.
6. The applicant shall demonstrate that the proposed use or activity will not cause degradation of groundwater quality exceeding the standards described in Chapter 173-200 WAC (Water Quality Standards of the State of Washington) and comply with all other applicable local, state, and federal regulations.
 7. The Administrator may require (1) that the applicant install monitoring wells, to the extent necessary to determine if pollution is occurring; (2) periodic monitoring at specified intervals, and (3) remedial action if the monitoring reveals that groundwater contamination is occurring.
 8. The Administrator may require additional protective measures if necessary to protect surface and groundwater quality, including but not limited to, BMPs, devices, or methods to provide a high level of nutrient removal from stormwater.
- F. Composting facilities (except home composting).
1. Composting shall be conducted in compliance with WAC 173-350-220, when applicable.
 2. Home composting shall be exempt from the requirements of this title if conducted in a manner such that there is no evidence of vectors that affect neighboring property.
- G. Dry cleaner facilities.
- When permitted by the Administrator, dry cleaner facilities shall follow BMPs and control technologies for pollution prevention as described by Ecology, the EPA, or as otherwise required by state or federal law.
- H. Fuel dispensing including gas stations.
- Sites where fuel is dispensed shall be designed to contain fuel spills on site without contaminating stormwater systems, sewage disposal systems, soil or water. This can be accomplished, for example, by installing a roof structure that shields the fueling area from precipitation and sloping the area surrounding the fuel pumps toward a sump with capacity for at least 100 gallons of fuel or by surrounding the covered fueling area with a shallow curb that provides capacity for at least 100 gallons of fuel. The storage capacity for the containment method may be adjusted by the Administrator, depending on the scale of the fuel dispensing facility

I. (Unattended) Gasoline and diesel powered generators.

Gasoline and diesel powered backup generators in a CARA shall be placed in a secondary containment device, consistent with SCC 19.01.040(A), such that a fuel spill or leak will not reach the soil or a waterbody unless the site where the generator will be operated contains a full-time residence or is occupied a minimum of eight hours per day, five days a week by trained employees associated with the facility

J. Greenhouses and nurseries – Commercial, wholesale, or retail.

Wholesale and retail greenhouses and nurseries shall apply any fertilizers at an agronomic rate in accordance with the timing and amount of crop demand for nitrate, unless the Administrator determines that a lower rate of application is appropriate to protect surface and groundwater quality.

K. Hazardous materials.

1. Hazardous materials shall be used, handled, stored, and disposed of in accordance with the standards contained in this section, IFC, and applicable state law (see RCW 70.105, WAC 173-303).
2. Operators of new and existing uses and activities that involve the use, handling, storage or generation of hazardous materials exceeding thresholds specified in the IFC (2009), as amended, shall submit for County review and approval a hazardous materials management plan that demonstrates that the use or activity will not have an adverse impact on groundwater quality. Notwithstanding the requirements of the IFC, if the Administrator determines that the proposed use or activity poses a risk to groundwater, they shall require submission of a hazardous materials management plan to protect groundwater quality. Approved hazardous materials management plans shall be implemented.
3. Persons that possess liquid, soluble, or leachable hazardous materials shall contain such materials and the entire distribution system in a secondary containment device or system that will effectively prevent discharge on site. Secondary containment may be achieved in a variety of ways, including but not limited to, use of sloping floors that provide capacity to contain spills or installation of a curb around the perimeter of the structure (see RCW 15.54 and 17.21 regarding pesticide storage).

L. Metal plating.

1. When permitted by the Administrator, metal plating operations shall be consistent with standards established in SCC 19.04.050(E and K) and shall follow BMPs and control technologies for pollution prevention as described by Ecology, the EPA, or as otherwise required by state or federal law.

M. Mineral extraction – Gravel and sand.

1. In addition to other stormwater mitigation requirements, stormwater from the portion of the site where hazardous materials are stored and/or where fueling of equipment occurs shall be directed away from the pit.

2. Gravel mining shall not occur in locations where the Administrator determines, based on a hydrogeologic report, that proposed mining would likely diminish the volume of water in springs or shallow wells such that it would no longer meet the needs of dependent users, or would influence water quality, quantity, temperature, or turbidity so it would no longer be suitable for drinking. As an alternative to project denial, the applicant may, with the consent of the affected property owner, mitigate such impacts by providing the affected residents with a deeper well or a connection to an alternative water system.
3. Mines shall be prohibited in areas with existing contamination that, if it were disturbed or exposed, could impair water quality, including water temperature, unless the applicant demonstrates that the proposed mining operation would be conducted in a manner that would not jeopardize ground and surface water quality. The Administrator may require a hydrogeologic report and soil testing and downgradient water testing for suspected toxic chemicals on the site.
4. Mining is not allowed in ~~the 1, 5 and 10 year time of travel zone of wellhead protection areas. The mine operator shall maintain a buffer of unsaturated material 5 feet in depth between the bottom of the pit and the seasonal high groundwater table. The Administrator may adjust the depth of the buffer based on a hydrogeologic report, as warranted, to protect groundwater quality.~~
5. Redevelopment. The Administrator shall give protection of groundwater the highest priority when considering proposed land uses at former gravel mine sites. The Administrator shall require that a note be filed with the title of the subject property at the time of mine approval, indicating that use of the property subsequent to mine closure will be limited, as the County determines necessary, to protect groundwater quality, consistent with the provisions of this section. In addition, gates and fencing shall be required at mine access points along public and private roads to prevent dumping.

N. On-site sewage disposal.

~~Small on-site septic systems (SOSS) On-site sewage disposal systems exceeding 1,500 gallons per day (gpd) and less than 3,500 gpd -for an individual or multiple uses combined- may be allowed within a CARA subject to compliance with applicable County and state regulations (see WAC 246-272A and 246-272B [large on-site sewage systems]); the On-site Sewage Systems regulations of the Washington State Board of Health; WAC 173-200, Water Quality Standards for Groundwaters of the State of Washington), and County septic system regulations contained in SCC 8.84).~~ Review for new SOSSs shall occur through the County's onsite septic permitting process and the Community Health Department shall insure that these systems meet the Level 1 hydrogeologic report requirements in SCC 19.04.060.the following:

1. ~~Applicants for large on-site sewage systems (capacity for more than 3,500 gallons) shall submit a hydrogeologic report demonstrating that the system will not degrade groundwater quality, consistent with this section. In no case shall the project increase the nitrate concentration in the aquifer by more than 10 percent above existing conditions.~~

The Administrator shall condition or deny the project as necessary to maintain groundwater quality.

- 2.1. The Washington State Department of Health is the permit authority for larger on-site sewage systems (LOSS). Review of a proposed LOSS and the circumstances in which a hydrogeologic report is required shall be in accordance with WAC 246-272B.
- 3. ~~New lots created through land division shall not be created with densities greater than one unit per acre if they would use on-site sewage systems, unless a hydrogeologic report is provided that demonstrates groundwater quality will not be degraded.~~
- 4.2. Requirements to submit hydrogeologic reports are summarized in Table 19.04-2 below. The report shall be prepared by a licensed hydrogeologist, licensed geologist in Washington State holding a current specialty license in hydrogeology.

Table 19.04-2 Hydrogeologic Report Requirements for Proposed On-site Sewage Disposal

Dwelling Unit Density and Volume Equivalent Septic System Size	Report Requirements
<u>Small On-site Sewage System</u>	
One unit or less per 5.0 acres 0-1,500 gpd	N/A
One unit per acre to one unit per 5.0 acres Individual or multiple uses exceeding 1,500 gpd and less than 3,500 gpd	Hydrogeological report required in areas of known water quality degradation
Greater than one unit per acre	Hydrogeological report required
3.5 units per acre or more than 1,575 gallons per day of sewage	Prohibited
<u>Large On-site Sewage System</u>	
LOSS (3,500 gpd or more) -with capacity for 3,500 gallons or more per day	Hydrogeological report required <u>as per WAC 246-272B.</u>

New residential septic systems of less than 1,500 gallons are exempt from the above requirements provided they comply with all other County and State requirements.

O. Pier foundations.

Pier foundations that would extend more than 20 feet below the ground's surface that are proposed to be located within 200 feet of a well in a CARA shall be subject to review and approval by the Administrator. In the event the Administrator determines that the proposed foundation will pose a risk to the affected well's water quality, they may require that the proposed foundation be relocated; replaced with a shallow mat foundation, if feasible; or require other mitigation measures.

P. Pipelines.

Applicants for pipelines that carry oil, gas, diesel, kerosene, or any other liquid hazardous material shall identify spill prevention measures and submit a spill response plan that prioritizes response based on the susceptibility of the aquifer to contamination and its importance as a potable water supply, consistent with federal and state law. The Administrator shall require mitigative measures as necessary to minimize the risk of ground water contamination.

Q. Reclaimed water.

Irrigation with Class A reclaimed water at agronomic rates is permitted in all CARAs, subject to SCC 19.04.040.

R. Sawmills.

See WAC 173-303 and 173-350 and the Industrial Stormwater General Permit Implementation Manual for Log Yards, Ecology publication 95-053, as amended.

S. Solid waste processing, handling, transferring, or recycling.

The processing, handling, transferring, and recycling of solid waste shall be consistent with applicable provisions of WAC 173-350, and SCC 19.01.050(E).

T. Stormwater facilities (not including injection wells).

See SCC 19.01.050(E)(6) regarding stormwater management for commercial and industrial sites and SCC Title 24 regarding erosion and sedimentation control.

U. Underground storage tanks and vaults (residential and hazardous materials).

1. Residential underground storage tanks and vaults are regulated by the IFC.
2. Underground tanks and vaults for the storage of hazardous materials, fertilizers, or hazardous/dangerous waste, as defined in WAC 173-303, are allowed in a CARA only if they are designed and constructed consistent with state regulations (see WAC 173-360) and the IFC to:
 - a. Prevent releases to the ground, groundwater, and surface water due to corrosion, structural failure, or seismic activity for the operational life of the tank or vault (see the IFC);
 - b. Be protected against corrosion, constructed of non-corrosive material, or steel clad with a noncorrosive material, or contained in a secondary containment system to prevent the release of any stored substance;
 - c. Be composed of or lined with material that is compatible with the substance to be stored;
 - d. Prevent releases to the ground, groundwater, and surface water due to spillage. The opening for filling the tank shall be surrounded with impermeable material designed and sized to prevent spilled hazardous material from reaching the soil, groundwater, or surface water; and

- e. Provide leak detection that meets state standards.
3. The applicant shall submit design and as-built drawings of the facilities and keep records of required testing consistent with state law.

~~V.A. Vehicle repair and servicing/body shops.~~

- ~~1. Vehicle repair/servicing shall be performed over an impermeable surface under cover from the weather.~~
- ~~2.1. Dry wells shall not be permitted in conjunction with such uses.~~
- ~~3.1. Use and storage of hazardous materials shall be consistent with standards established in SCC 19.01.050(E).~~
- ~~4.1. The Administrator shall require that new hydraulic hoists be located in a vault to ensure that any leaks from such equipment are contained.~~

W.V. Vehicle wrecking/junk/scrap/salvage yards.

1. Vehicle wrecking yards shall conduct operations consistent with SCC 19.01.050(E).
2. The Administrator may require submission and implementation of a monitoring program to ensure that the operation is in compliance with all conditions of County approval.
3. The Administrator may require monitoring wells, to the extent necessary to determine if pollution is occurring; periodic monitoring; and remedial action if the monitoring reveals that groundwater contamination is occurring.

W. Vehicle repair and servicing/body shops.

1. Vehicle repair/servicing shall be performed over an impermeable surface under cover from the weather.
2. Dry wells shall not be permitted in conjunction with such uses.
3. Use and storage of hazardous materials shall be consistent with standards established in SCC 19.01.050(E).
4. The Administrator shall require that new hydraulic hoists be located in a vault to ensure that any leaks from such equipment are contained.

3.—

X. Wood products preserving and treating.

Wood products preserving and treating shall comply with SCC 19.04.050(E and K) and the following:

1. Wood products preserving, treating, drying, and storage shall be conducted on an impermeable surface, consistent with the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq.

2. The Administrator shall require submittal of a monitoring plan for commercial/ industrial wood products preserving and treating operations to ensure that the operation is in compliance with all applicable local, state, and federal regulations pertaining to groundwater protection and any conditions of approval applied by the County. Remedial action shall be required if the monitoring reveals that groundwater contamination is occurring.

19.04.060 Critical areas hydrogeologic reports for critical aquifer recharge areas

- A. All development proposed in a CARA that is a permitted activity requires a permit as listed in Table 19.04-1 shall complete a Level 1 site evaluation critical areas hydrogeologic report prepared by a qualified professional who is a licensed geologist in Washington State holding a current specialty license in hydrogeology, a hydrogeologist, geologist, or engineer licensed in the state of Washington and has experience in preparing hydrogeologic assessments. The report shall contain the following information:
 1. Areas determined to be moderately or highly vulnerable or susceptible to degradation or depletion because of hydrogeologic characteristics should be identified.
 2. Identify appropriate BMPs and show how they will prevent degradation of groundwater.
 3. Identify how the applicant will follow the requirements of WAC 173-303, Dangerous Waste Regulations, in the event hazardous material is released onto the ground or into groundwater.
 4. How local, state, and federal regulations regarding groundwater protection have been met.
 5. Site-specific hydrogeologic information to support a conclusion of no degradation to groundwater. Hydrogeologic information is available from existing U.S. Geological Survey reports and the U.S. Department of Agriculture Natural Resources Conservation Service (Soil Survey of Skamania County, Washington, 1990).
- B. If an applicant wants to avoid implementation of applicable BMPs, the applicant must submit a Level 2 site evaluation hydrogeologic report prepared by a qualified professional and develop and implement a monitoring program that demonstrates how the applicant will prevent degradation to groundwater. The applicant must also meet existing local, state, and federal laws and regulations. The monitoring program shall provide for quarterly reports and may require periodic changes based on the monitoring results, new technology, and/or BMPs. The Level 2 site evaluation hydrogeologic report shall contain the following:
 1. An evaluation determining whether the proposed activity will have any adverse impacts on groundwater in CARAs, based upon the requirements of the Safe Drinking Water Act and the Wellhead Protection Area Program, pursuant to WAC 246-290, Public Water Supplies; WAC 173-200, Water Quality Standards for Groundwaters of the State of Washington; and WAC 173-303, Dangerous Waste Regulations;

2. Identification of the proposed development plan, along with potential adverse impacts to water quality (e.g., on-site septic systems and other on-site activities) that may adversely impact groundwater quality underlying or downgradient of the project or project area;
 3. Illustration at an appropriate scale (no less than 1 inch to 200 feet) showing the location of abandoned and active wells, springs, and surface waterbodies within 1,000 feet of the project or project area; and
 4. Description of the geologic and hydrologic characteristics of the subject property, including the following: (1) lithologic characteristics and stratigraphic relationships; (2) aquifer characteristics, including recharge and discharge areas, depth to and static water-flow patterns, and an estimate of groundwater-flow velocity; (3) contaminant fate and transport, including probable migration pathways and travel time of a potential contaminant release from the site through the unsaturated zone to the aquifer(s) and through the aquifer(s), and how the contaminant(s) may be attenuated within the unsaturated zone and the aquifer(s); (4) appropriate hydrogeologic cross sections that depict lithology, stratigraphy, aquifer, units, potential or probable contaminant pathways from a chemical release, and rate of groundwater flow; and (5) existing groundwater quality, a proposal for monitoring groundwater to detect changes, and the corrective actions that will be taken if monitoring results indicate contaminants from the site have entered the underlying aquifer(s).
- C. Level 1 and 2 reports will be reviewed by the Administrator, who may consult with other agencies or hire consultants in conjunction with the same process as the primary development permit. If approved, the applicant will receive a permit allowing the activity on the subject property.

19.05 FISH AND WILDLIFE HABITAT CONSERVATION AREAS

19.05.010 Applicability.

- A. Review under the standards of this Chapter shall apply to any proposed development or non-development clearing activities within fish and wildlife habitat conservation areas, defined below, which are not listed as exempt, pursuant to Skamania County Code (SCC) 19.01.070, Exemptions.
1. Development activities are those proposals already subject to existing County land division, building, grading or other review processes.
 2. Non-development clearing activities are proposals that are not otherwise subject to County review, but involve the alteration or removal of vegetation in designated fish and wildlife habitat conservation areas.
 3. Or regulated activities as outlined in SCC 19.01.060.
- B. Confirmation letter. Although an area may be mapped as a fish and wildlife habitat conservation area, it may not meet the designation criteria of a fish and wildlife habitat conservation area. Compliance with this chapter is not required when the applicant provides a letter from a qualified professional demonstrating that a proposed activity or development is not located within and/or would not impact a fish and wildlife habitat conservation area or buffer as designated in 19.05.010(C).
- C. Designation. All areas within the County meeting one or more of the following designations, regardless of formal identification, are considered fish and wildlife habitat conservation areas and are subject to the provisions of this Chapter.
1. Areas where endangered, threatened, and sensitive species have a primary association, including federal and state species (Washington Department of Fish and Wildlife [WDFW] priority habitats and species, including riparian habitat areas) and state priority habitat and areas associated with state priority species. Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation because of their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitats and species are identified by the WDFW.
 2. Waters of the state. Waters of the state shall be those defined in Washington Administrative Code (WAC) 222-16-030:
 - a. Type S Waters are all waters, within their bankfull width, as inventoried as "shorelines of the state" under Chapter 90.58 of the Revised Code of Washington (RCW) and the rules promulgated pursuant to Chapter 90.58, including periodically

inundated areas of their associated wetlands. Type S shorelines are regulated under the County shoreline management program (SMP).

- b. Type F Waters are segments of natural waters, which are not classified as Type S Waters and have a high fish, wildlife, or human use. These are segments of natural waters and the periodically inundated areas of their associated wetlands.
 - c. Type Np Waters are all segments of natural waters within defined channels that are perennial non-fish habitat streams. Perennial streams are waters that do not go dry at any time of a year of normal rainfall. However, for the purpose of water typing, Type Np Waters include the intermittently dry portions of the perennial channel below the uppermost point of perennial flow.
 - d. Type Ns Waters are all segments of natural waters within defined channels that are not Type S, F, or Np Waters. These are seasonal, non-fish 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 aboveground channel system to a Type S, F, or Np Water.
3. Habitats and species of local importance, as determined locally;
 4. Forage fish spawning areas;
 5. Naturally occurring ponds under 20 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 other waters.

This does not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.
 6. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and
 7. State or federal natural area preserves, natural resource conservation areas, and state wildlife areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the Washington State Department of Natural Resources (DNR).

19.050.020 Exemptions

- A. Activities exempt from the provisions of this section are specified in SCC 19.01.070, Exemptions. In addition, the following habitat-specific exemption applies in deer and elk wintering range mapped by WDFW. Deer and elk are sensitive to disturbance from human development including roads and buildings in their wintering habitat. They normally

require mature trees and undergrowth for screening in their wintering habitat and can do well in open areas lacking tree coverage provided there is a lack of human disturbance.

1. Single-family residences and accessory uses are exempt from review in WDFW mapped deer and elk wintering range provided all the following criteria are met as demonstrated by the applicant:
 - a. The subject site is located in an area of tree canopy coverage of less than 60 percent;
 - b. The subject site is located in an area of existing human disturbance where road density is greater than 1.5 miles of road within 1 square mile of the proposed development site and where existing density of residences is greater than one residence per 5 acres
 - c. The subject site is located in areas greater than $\frac{3}{4}$ -mile from water sources (streams, lakes, or rivers).

19.05.030 Regulations.

- A. The following requirements apply in addition to those identified in SCC 19.01. All new structures and land alterations shall be prohibited from fish and wildlife habitat conservation areas and their buffers, except in accordance with this Chapter. Additional standards follow:
 1. Development and clearing within a fish and wildlife habitat conservation area or an associated buffer shall protect the functions and values of the existing habitat to the extent feasible; activities shall protect critical area functions and values. Protection is to be provided by avoiding (the preferred alternative) or minimizing and mitigating impacts as specified in SCC 19.01.090.
 2. Any use or development proposed within or adjacent to a fish and wildlife habitat conservation area shall ensure the area is protected as required by this Chapter. If the Administrator determines that a proposal is likely to impact a fish and wildlife habitat conservation area adversely, additional protective measures (such as a buffer area) may be required.
 3. Development or clearing within a priority habitat and/or species area shall follow WDFW management guidelines, management recommendations, or other standards approved by the WDFW. Where no guidelines, recommendations, or other standards exist, development or clearing may occur provided that:
 - a. The development or clearing protects habitat functions and values; and
 - b. Functionally significant habitat, defined as habitat that cannot be replaced or restored within 20 years shall be preserved. Forested stands that do not meet the definition of old-growth/mature forests as specified by the WDFW Priority Habitats and Species List, may be exempt from this (19.05.030(A)(3)(b)) provision.
 4. The County or its qualified professional biologist shall condition the approval of activities located in fish and wildlife habitat conservation areas or their buffers as

necessary. Approval conditions shall require the applicant to mitigate any potential adverse impacts according to the approved critical area report and habitat mitigation plan.

5. Proposals for activities, uses, and alterations located below the ordinary high water mark (OHWM) shall identify with specificity how the preservation and enhancement of anadromous fish habitat will be achieved, including, but not limited to, the following:
 - a. Activities shall not occur outside the allowable work window as designated by the WDFW.
 - b. An alternative alignment or location for the activity is not feasible.
 - c. The activity is designed so that it will minimize the degradation of the downstream functions or values of the fish habitat or other critical areas.
 - d. Any impact to the functions and values of the habitat conservation area are mitigated in accordance with an approved critical areas report.
 - e. 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, as necessary, to allow the upstream and downstream migration of all salmonid life stages and shall prevent juveniles migrating downstream from being trapped or harmed. This standard does not apply to existing dams regulated/licensed by the Federal Energy Regulatory Commission.
 - f. Water intakes shall be screened to prevent fish from being drawn into pipes, pumps, and diversion devices in accordance with WAC 220-660-250.

B. Development Standards.

1. Alterations within fish and wildlife habitat conservation areas. A habitat conservation area may be altered, provided, that the proposed alteration of the habitat or the mitigation proposed is unavoidable and does not degrade the quantitative and qualitative functions and values of the habitat, and provided that the proposed alteration is not otherwise restricted or prohibited by this Chapter. Applicants proposing activities subject to this Chapter are required to demonstrate that the activity:
 - a. Substantially maintains the level of habitat functions and values as characterized and documented using best available science.
 - b. Minimizes habitat disruption or alteration beyond the extent required to undertake the proposal.
2. Nonindigenous Species. Plants, wildlife, or fish species not indigenous to the region shall not be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.
3. Clearing and Grading. When clearing and grading is permitted as part of an approved critical areas report, the following shall apply:

- a. Grading is allowed only during the dry season, which is typically regarded as beginning on May 1 and ending on October 1 of each year; provided, that the County may extend or shorten the dry season on a case-by-case basis, as determined by actual weather conditions.
 - b. Best management practices for erosion and sediment control must be in place prior to, during, and after construction.
 4. If it is determined that habitat designated under this Chapter will incur a net loss of functions or values as a result of a proposal, disrupted functions and values shall be mitigated on site as a first priority, and off site thereafter.
 5. Mitigation should be guided by applicable watershed, fish recovery, sub-basin or other science-based plans. Any science used to guide mitigation actions, whether on site or off site, must meet the criteria and characteristics of best available science listed in WAC 365-195-905, or the state standards in effect at the time of application.
 6. Mitigation actions that require compensation shall occur in accordance with Section 19.01.090, General Mitigation Requirements.
 7. The following additional mitigation requirements for Fish and Wildlife Habitat Conservation Areas shall apply.
 - a. Mitigation for alterations to fish and wildlife habitat conservation areas shall be consistent with WDFW and other state or federal agencies' management recommendations and guidance documents for best practices mitigation.
 - b. Mitigation shall be required to the level or extent necessary to protect fish and wildlife habitat conservation area functions and values.
 - c. Proposed mitigation for impacts within fish and wildlife habitat conservation areas may be conditioned by the County on a case-by-case basis using recommendations provided by Washington Department of Fish and Wildlife.
- C. Habitat Specific Development Standards.
1. Endangered, Threatened, and Sensitive Species. Where federal or state management recommendations exist to protect a state or federally protected species, development or other activities may be allowed within or adjacent to a habitat conservation area or buffer with which the state or federally endangered, threatened, or sensitive species has a primary association only when the management recommendations are utilized as demonstrated in a critical area assessment prepared by a qualified professional and approved by the Administrator.
 2. 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 Section 19.03, Wetlands. If overlap occurs between these critical areas, the provisions of this section or Section 19.03, Wetlands, whichever provides greater protection to the habitat, apply.

3. Riparian Habitat. Riparian habitat areas shall be established for habitats that include aquatic and terrestrial ecosystems that mutually influence each other and that are located adjacent to waters of the state. Unless otherwise allowed in this title, all structures and activities shall be located outside riparian habitat areas.
 - a. Isolated Riparian Habitat Areas. When impervious surfaces from previous development or flood control structures, such as levees, completely functionally isolate the riparian area from the watercourse, the riparian habitat area shall extend from the OHWM to the impervious surfaces, or toe of the flood control structure.
 - b. Seasonal Restrictions. When a species is more susceptible to adverse impacts during particular periods of the year, seasonal restrictions may apply. Larger riparian habitat area widths may be required and activities may be further restricted during the specified season.
4. Required Riparian Habitat Area. The required widths are shown in the table below. Widths shall be measured outward in each direction, on the horizontal plane, from the OHWM (or from the top of bank, if the OHWM cannot be identified) to the edge of the 100-year floodplain, or the distances shown in the table below, whichever is greater.

**Table 19.05-1. Riparian Habitat Areas –
Stream Type - Required Riparian Habitat Area Widths**

Stream Type	Riparian Habitat Area Width (ft)
DNR Type S Waters	See County SMP
DNR Type F Waters (salmon-bearing)	150
DNR Type F Waters (non-salmon bearing)	100
DNR Type Np Waters	75
DNR Type Ns Waters	50

5. Alterations to Waters of the State and Associated Riparian Habitat Areas. Activities may be permitted within a pond, lake, water of the state, or associated riparian habitat area when the activity complies with the provisions in this subsection and in accordance with an approved critical areas report and all applicable state or federal permits.
 - a. All work shall comply with the WDFW in-water work window for the relevant species; and
 - b. The proposal will not degrade the functions or values of the aquatic habitat or other critical areas.
6. Alteration of Natural Watercourses. Alteration of natural watercourses shall be avoided. If unavoidable, the following provisions shall apply to the alteration:
 - a. Watercourse alteration projects shall not result in blockage of side channels;
 - b. The applicant shall maintain the altered or relocated portion of the watercourse to ensure that its flood-carrying capacity is not diminished; and

- c. Unavoidable impacts shall be mitigated consistent with mitigation requirements found in SCC 19.01.090, General Mitigation Requirements.
7. In-Stream Structures. No structures that prevent the migration of salmonids will be allowed in the portions of waterbodies currently used by anadromous fish.
8. Fills shall minimize impacts to anadromous fish or their habitat.
9. New Docks and Launching Ramps – Public or Private. On Type F and Type Np Waters, launching ramps and new docks may be permitted in accordance with an approved critical areas report that has demonstrated the following:
 - a. The development minimizes adverse impacts to fish or wildlife habitat areas;
 - b. Adequate mitigation measures protect functions and values of aquatic or riparian habitat as a result of the structures; and
 - c. If applicable, the applicant has obtained a Hydraulic Project Approval (HPA) from the WDFW.
10. Trails and stream crossings for roads and trails. Construction of trails and of bridges or culverts for trail or roadway stream crossings may be permitted without submission of a buffer averaging or reduction request under 19.01.080.D or critical areas variance and are subject to the following additional standards:
 - a. There is no other feasible alternative route with less impact on the environment;
 - b. Mitigation for impacts is provided pursuant to a mitigation plan of an approved critical area assessment;
 - c. Wherever feasible, trails and associated viewing platforms shall not be made of continuous impervious materials;
 - d. Trail and roadway stream crossings shall cross at a perpendicular angle to the degree feasible, or, if not feasible, at an angle no less than 60 degrees.
 - e. Any stream crossing must receive a WDFW-issued HPA prior to the County issuing a permit decision.
11. Roads within fish and wildlife habitat conservation areas or buffers require application for a critical areas variance under 19.01.050 or approval of a request for buffer averaging or buffer reduction under 19.01.080 or 19.01.050.
12. Utility Facilities. New utility lines and facilities may be permitted to cross watercourses, if they comply with the following additional standards:
 - a. There is no other feasible alternative route with less impact on the environment;
 - b. Installation shall be accomplished by boring beneath the scour depth and the saturated zone beneath the watercourse and channel migration zone, where feasible;

- c. The utilities shall cross at an angle greater than 60 degrees to the centerline of the channel in streams or perpendicular to the channel centerline whenever boring under the channel is not feasible;
 - d. Crossings shall be contained within the footprint of an existing road or utility crossing where possible;
 - e. The utility route shall avoid paralleling the stream or following a down-valley course near the channel;
 - f. The utility installation shall not increase or decrease the natural rate of shore migration or channel migration; and
 - g. Utility facilities that carry liquid petroleum products or any other hazardous substance as defined in Chapter 173-303 WAC may be permitted only when demonstrated by a qualified professional that the design, location, and monitoring of the proposed facility will not cause contaminants to enter the protected resource.
 - h. If applicable, the applicant has obtained an HPA through WDFW.
13. Fences in Deer and Elk Wintering Range. New development permits issued by the County shall include a requirement that, in deer and elk winter range, the construction of new and replacement fences shall be subject to the following:
- a. New fences in deer and elk winter range shall be allowed only when necessary to control livestock or pets or to exclude wildlife from specified areas, such as gardens or orchards. Fenced areas shall be the minimum necessary to meet the needs of the project applicant.
 - b. New and replacement fences in winter range shall comply with the following, unless the applicant demonstrates the need for an alternative design:
 - i. The top wire shall not be more than forty-two inches high to make it easier for deer to jump over the fence.
 - ii. The distance between the top two wires shall be at least ten inches to make it easier for deer to free themselves if they become entangled.
 - iii. The bottom wire shall be at least sixteen inches above the ground to allow fawns to crawl under the fence. It should consist of smooth wire because barbs often injure animals as they crawl under fences.
 - iv. Stays or braces placed between strands of wire shall be positioned between fence posts where deer are most likely to cross. Stays create a more rigid fence, which allows deer a better chance to wiggle free if their hind legs become caught between the top two wires.
 - c. Woven wire fences may be authorized only when a project applicant clearly demonstrates that such a fence is required to meet his or her specific needs, such as controlling hogs and sheep.

19.05.040 Critical Area Report requirements.

A. A critical areas report for fish and wildlife habitat conservation areas shall be prepared by a qualified biologist with experience analyzing aquatic and/or wildlife when a development activity is proposed in a habitat area or buffer. As deemed necessary by the Administrator, the County may seek WDFW review and input on the report's methodology. In the interest of ensuring that the consultant work proposed is in line with agency expectations, notice that a critical areas report has been received by the County will be provided to the WDFW with the CAO permit notice per SCC 19.01.050 or as soon as the critical areas report has been received. The County will seek WDFW response within 14 days and will not rely solely on WDFW review.

In addition to the general critical areas report requirements of SCC 19.01.100, a critical area reports for fish and wildlife habitat conservation areas shall provide an assessment of existing habitats. The Administrator has the authority to determine the applicability of individual critical areas report requirements and may waive report requirements determined to be unnecessary on a case-by-case basis. Critical areas reports for fish and wildlife habitat conservation areas must include the following information as determined necessary by the Administrator:

1. Identification of any species of local importance, priority species, or endangered, threatened, sensitive or candidate species that have a primary association with habitat in or adjacent to the project area, and an assessment of potential project impacts to the use of the site by the species.
2. A discussion of any federal, state, or local species/habitat management recommendations, including the WDFW habitat management recommendations, that have been developed for the identified species or habitat.
3. Any buffers necessary for the protection of the identified species.
4. Developments that propose alterations to streams or their associated riparian habitat shall include the following within the critical areas report:
 - a. Characterization of riparian (streamside) vegetation species, composition, and habitat function;
 - b. Descriptions of the soil types adjacent to and underlying the stream, using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil classification system;
 - c. Characterization of flow regime (i.e., perennial, intermittent, or ephemeral);
 - d. Determination of the presence or absence of fish, and reference sources; and
 - e. When stream alteration is proposed, include stream width and flow rate, stability of the channel including erosion or aggradation potential, type of substratum, discussions of infiltration capacity and biofiltration before and after alteration, presence of hydrologically associated wetlands, analysis of fish and wildlife habitat, and any proposed floodplain limits.

5. On the site map: (a) the location of the identified habitat; (b) the location of the OHWM; (c) the toe of any slope 25 percent or greater within 25 feet of the OHWM; and (d) the location of any proposed or existing stream crossing.
6. Habitat Mitigation Plans. Development proposals or alterations within a fish and wildlife habitat conservation area or buffer as determined by the administrator in consultation with the WDFW shall have prepared, and submitted, as part of its critical areas report, a habitat mitigation plan.
 - a. In addition to the general mitigation requirements of SCC 19.01.090, the habitat mitigation plan for fish and wildlife habitat conservation areas shall include a habitat mitigation plan in the critical areas report that identifies the existing habitat and the qualities that are essential to maintain feeding, breeding, and nesting of listed species using the fish and wildlife habitat conservation area, and that identifies measures to minimize the impact on these ecological structures, functions, and processes from the proposed activities. The applicant shall be guided by, but not limited to:
 - i *Management Recommendations for Washington's Priority Habitats and Species* (1991), issued by WDFW, as amended;
 - ii *Management Recommendations for Washington's Priority Habitats and Species: Oregon White Oak Woodlands* (1998), issued by WDFW, as amended;
 - iii *Management Recommendations for Washington's Priority Habitats: Riparian* (1997), issued by WDFW, as amended;
 - iv *Management Recommendations for Washington's Priority Species Volume III: Amphibians and Reptiles* (1997), issued by WDFW, as amended;
 - v *Management Recommendations for Washington's Priority Species Volume IV: Birds* (2012), issued by WDFW, as amended;
 - vi Any recovery and management plans prepared or adopted by the WDFW for the listed species pursuant to WAC 232-12-297, National Marine Fisheries Service (NMFS), and the U.S. Fish and Wildlife Service (USFWS) pursuant to the federal Endangered Species Act (ESA);
 - vii The Washington Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan by the Lower Columbia Fish Recovery Board; and
 - viii The watershed management plans for Water Resource Inventory Areas 26, 27, 28, and 29A and the associated detailed implementation plans.
 - b. Conditions shall be imposed, as necessary, based on the measures identified in the habitat mitigation plan.
 - c. Approval of land alteration within or adjacent to the fish and wildlife habitat conservation area or its buffer shall not occur prior to consultation with WDFW and the appropriate federal agency.

19.06 FREQUENTLY FLOODED AREAS

19.06.010 Applicability.

The frequently flooded critical areas regulations shall apply to all areas of within the 100-year floodplain as designated by the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP) and shown on the Federal Insurance Rate Map (FIRM) panels. All regulated activities specified in Skamania County Code (SCC) 19.01 are subject to the provisions of this chapter.

19.06.030 Regulations.

A. Designation and Classification.

1. All proposed developments shall be reviewed by the department to determine whether the development would occur within the 100-year floodplain or floodway of any river or stream. Initial review shall consist of consulting the appropriate FEMA FIRM panels.
2. If any question exists regarding whether development will occur within a floodplain, then the applicant should contact FEMA to have the floodplain delineated by a qualified professional. The floodplain delineation shall be shown on the final site plan.

B. Design Standards.

1. All development within the 100-year floodplain shall comply with standards established in Washington Administrative Code 173-158 for construction within a floodplain or floodway in addition to complying with the development standards identified in SCC 15.18. In the event of any conflict, the regulations providing greater protection of critical areas shall apply.
2. New short plats and subdivision plats including lands within a 100-year floodplain shall include floodplain delineations on the final plat map, with appropriate warnings to prospective purchasers of lots within the short plat or subdivision.

CHAPTER 19.07 GEOLOGICALLY HAZARDOUS AREAS

19.07.010 Applicability.

Geologically hazardous areas may pose a threat to the health and safety of citizens when incompatible development is sited in areas of significant hazard. Such incompatible development may not only place itself at risk, but may also increase the hazard to surrounding development and uses. Areas susceptible to one or more of the following types of geological hazards shall be designated as geologically hazardous areas. The geologically hazardous area provisions in this chapter apply to regulated activities in the following areas:

- A. Erosion hazard areas: As identified by the U.S. Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) as having "severe" or "very severe" erosion susceptibility.
- B. Landslide hazard areas: As defined in Chapter 19.02 of this ordinance and mapped as landslides, scarps, and flanks in the Washington State Department of Natural Resources' (DNR) "2018, Landslide Inventory and Susceptibility of the Columbia Gorge in Clark, Skamania, and Klickitat Counties, Washington."
- C. Seismic hazard areas: As defined in Skamania County Code (SCC) 19.02 of this ordinance and indicated by:
 - 1. A Zone D1 or higher rating as defined by the Seismic Design Category Maps for Residential Construction in Washington by the DNR (2007 or as updated) and defined in the International Residential Code and areas with Site Class C to D, D, D to E, E, and F, as defined by the "Site Class Map of Skamania County, Washington" (September 2004 or as updated), by the DNR and as defined in the International Building Code (IBC).
 - 2. Areas of "low to moderate" or greater liquefaction susceptibility as mapped by the DNR on their "Liquefaction Susceptibility Map of Skamania County, Washington" (September 2004 or as updated).
- D. Volcanic hazard areas. As defined in SCC 19.02 of this ordinance and identified on the Volcanic Hazards Zones maps produced by the United States Geological Survey (USGS) for Mount St. Helens and Mount Adams. Volcanic hazard zones regulated under this ordinance include near-volcano hazards and lahar zones on the USGS maps.

19.07.030 Regulations.

- A. Permitted Alterations in Geologically Hazardous Areas.
 - 1. Alterations. Alterations of geologically hazardous areas or associated buffers may occur only for activities that:
 - a. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;
 - b. Will not impact other critical areas adversely;

- c. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and
 - d. Are recommended by a qualified professional in a signed and stamped geologic hazards assessment or geotechnical engineering report, whichever is required by this Chapter.
2. Critical facilities. Critical facilities, as defined in SCC 19.02, shall not be sited in geologically hazardous areas unless there is no other practical alternative, as demonstrated in a geotechnical assessment.
 3. Utilities Transmission Facilities. Utility facilities that carry liquid petroleum products or any other hazardous substance as defined in Washington Administrative Code (WAC) Chapter 173-303 may be permitted within geologically hazardous areas only when a qualified professional demonstrates that the design and location of the proposed facility will not cause adverse impacts.
- B. Notification of Hazard.
1. Development notification. As part of any critical areas permit granted under this section, the owner of the property subject to development shall record a notice with the Skamania County Auditor in the form set forth below:

GEOLOGIC HAZARD AREA NOTICE

Tax Parcel No.: _____

Address: _____

Legal Description: _____

Notice: This site lies within a geologic hazard area. Restrictions on use or alteration of the site may exist. For more information, contact the Skamania County Community Development Department.

C. Design Standards – Seismic hazard areas.

1. Development proposed in seismic hazard areas shall conform to the provisions of the International Residential Code or IBC that apply to structural standards and safeguards to reduce risks from seismic activity.
2. For sites where a seismic hazard area is the only critical area present, a critical areas report and permit is not required.

D. Design Standards – Erosion hazard areas.

1. 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 addressing temporary erosion from construction activities as well as the potential for erosion after construction and any necessary mitigations, unless the applicant submits a letter from a qualified professional which documents that no erosion hazard is present. The erosion and sediment control plan shall be prepared in compliance with

requirements set forth in SCC 24.02.090 and shall follow all relevant best management practices for erosion and sedimentation control outlined in the most current version of the Stormwater Management Manual of Western Washington (SMMWW). The erosion control plan shall also demonstrate that clearing, grading, and impervious surfaces have been minimized and that the proposed development will not increase erosion hazards after construction. Erosion control plans shall be prepared by a qualified professional.

2. For sites where an erosion hazard area is the only critical area present, a critical areas report and permit is not required. When other critical areas are present on the site any required critical areas reports shall address how the regulated activity and site alterations may impact the erosion hazard area.

E. Design Standards – Landslide hazard areas.

1. Applicants proposing regulated activities within mapped landslide hazard areas or areas located within 100 ft. of mapped landslide hazard areas must complete a geotechnical letter documenting whether the hazard is present. The County may require a geotechnical letter for areas located more than 100 ft. away from a mapped hazard if, in its professional judgement, a further investigation is required to determine if a hazard is present. Conversely, the County may waive this requirement for areas located less than 100 ft. away from a mapped hazard.
2. For sites confirmed to contain a hazard, the applicant must provide a geotechnical assessment consistent with SCC 19.07.040 discussing whether the activity will increase the risk of erosion or landslide and, if so, whether mitigations are necessary. If the applicant demonstrates through a geotechnical assessment that the regulated activity and any site alterations will not impact the erosion or landslide hazard area, then the requirement to submit a geotechnical report will be waived and a critical areas permit is not required.
3. A geotechnical report will be required when the assessment does not clearly demonstrate that the regulated activities and site alterations do not impact the landslide hazard area; the geotechnical assessment recommends additional geotechnical study; and/or the regulated activity is within an identified active landslide hazard area.
4. Buffers. A buffer shall be established from all edges of landslide hazard areas.
 - a. Buffer size. A buffer shall be established from the edge of all landslide hazard areas with the width of the buffer determined based on the recommendations of a geotechnical assessment or report.
 - b. The buffer shall be clearly staked before and during any construction or clearing.
 - c. All portions of landslide hazard areas and buffers shall be designated as landslide protection areas.
5. Design and development standards. Development or alterations within a landslide hazard area and/or buffer shall be designed to meet the following requirements. Deviations from one or more of these standards may be permitted where it can be

demonstrated by a qualified professional that an alternative design provides equal or greater protection of the critical area and proposal. The basic development design standards are:

- a. Structures and improvements shall be located to avoid landslide hazard areas and other critical areas;
- b. 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;
- c. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
- d. The proposed development shall not result in an increase in surface water discharge or sedimentation to adjacent properties;

F. Design Standards – Volcanic hazard areas.

1. The following uses are allowed in volcanic hazard areas without review:

- a. Agriculture and forestry activities;
- b. Open space and passive recreational uses, which may include hiking, boating, fishing, etc.;
- c. Maintenance and repair of existing structures, roads, trails, educational facilities, and serviceable structures;
- d. Structures less than 200 square feet in area, which are not subject to building permit requirements; and,
- e. Exploratory or scientific research, fish and wildlife enhancement projects, or similar activities.

2. For all other uses, development proposals must include an evacuation and emergency management plan. At a minimum, the evacuation and emergency management plan must demonstrate that the evacuation route has been determined to not contain any other potential natural hazards, such as landslide or flood hazards, that could cause a blockage or destruction of the evacuation route during an event (i.e., seismic event triggers a landslide that results in the evacuation route becoming impassible). An existing area-wide evacuation and emergency management plan that includes the proposed development site can be used to satisfy this requirement.

3. Critical areas reports are not required for volcanically hazardous areas.

19.07.040 Critical areas reports for landslide hazards.

- A. Applicants proposing regulated activities in mapped landslide hazard areas must complete a geotechnical letter and/or assessment and report as required by Section 19.07.030(H) and consistent with the requirements in this section.
- B. Site Plan(s) – Assessments and Reports. The following information must be included on all site plans in geotechnical assessments and reports. For sites determined not to contain or be adjacent to a geologically hazardous area, the Administrator will accept a letter from a qualified professional documenting that no hazards are present. For sites with documented hazards, a site plan, included with the geotechnical assessment or report, must be provided with the following information:
1. The type and extent of geologic hazard areas and buffers on, adjacent to, within 200 feet of, or that are likely to impact the proposal;
 2. Proposed development activity area, including the location of existing and proposed structures, septic drain field and reserve areas, clearing limits, fill locations, storage of materials, and drainage facilities;
 3. Dimensions of the proposed development activity to the property lines, critical areas, landslide scarp and slide mass;
 4. A contour map of the proposed site, at a scale of 1 inch equals 20 feet or other scale as deemed appropriate by the Administrator. Slopes shall be clearly delineated for the ranges between 15 percent and 25 percent, 25 percent and 40 percent, and 40 percent or greater, including the height of slope, slope gradient, and cross section of the project area;
 5. The location and type of surface water runoff features, including the location of springs, seeps, or other surface expressions of groundwater on or within 200 feet of the project area or that have potential to be affected by the proposal; and
 6. When site-specific conditions indicate the necessity, the Administrator may require the topographic data to be field surveyed.
- C. Geotechnical Assessment. A geotechnical assessment is an overview of site conditions and a professional evaluation of the need for additional studies prior to development on the property. The geotechnical assessment is intended to be a limited study of geological hazards (i.e., landslide, seismic, and erosion, hazards) at a site, and does not include the collection of any subsurface soil, rock, and groundwater data. If determined to be necessary, the qualified professional will recommend the preparation of a detailed geotechnical report that includes the investigation of subsurface soil, rock, and groundwater conditions to better assess the geological site hazards. The geologic assessment shall include, but not be limited to:
1. A field reconnaissance of the site and vicinity;
 2. A detailed description of the project;
 3. Site plan of the area, including all items specified above in SCC 21.A07.040(C)(1);

4. Feasibility of the site for the proposed development activity;
 5. A description of the surface and subsurface geology, hydrology, soils, and vegetation found in the project area;
 6. A discussion of the project and its relationship to the geologic hazards found on site, which may include the type and extent of geologic hazard areas and buffers on, adjacent to, within 200 lateral feet of, or that are likely to impact the proposal or be impacted by the proposal;
 7. An overview of any field investigations, published data, and references; data and conclusions from past assessments of the site; and site-specific measurements, tests, investigations, or studies that support the identification or lack of geologically hazardous areas;
 8. If applicable, an identification of any areas of the site recommended to be avoided by any aspect of the proposed development;
 9. If necessary, identification of mitigation measures needed to address any anticipated geologic problems, including necessary erosion control and drainage plans, seasonal grading and clearing restrictions, the necessity for retaining vegetation for slope stability, and limitations on the placement of utility lines, pipes, and sewerage disposal systems;
 10. If applicable, development recommendations for the proposed activities. These recommendations should include, but are not limited to, structure and septic system setbacks from geologic hazard areas if less than or greater than the minimum established buffer or if they do not meet IBC setback requirements, foundation design, filling and excavation, erosion control, drainage, and site preparations;
 11. Discussion regarding the need for follow-up studies that should be conducted, such as geotechnical engineering reports, additional subsurface exploration, or more extensive soil reports; and
 12. Demonstration that all applicable development standards are met.
- D. Geotechnical Engineering Report. A geotechnical engineering report will be required for any development proposal on a site containing an active landslide hazard area or landslide and erosion hazard that the geotechnical assessment identified for further geotechnical analysis. It is the responsibility of the qualified professional to provide a report and design recommendations that are appropriate for existing site conditions and the proposed development. The geotechnical engineering report shall be completed and stamped by a qualified professional and shall present results and engineering recommendations. The following information must be included in all geotechnical engineering critical areas reports:
1. The requirements listed within the geotechnical assessment criteria.
 2. Site history – description of any prior grading, soil instability or slope failure.

3. Subsurface data – logs of borings, test pits, and other exploratory methods; soil and rock stratigraphy; groundwater levels, including seasonal changes and laboratory tests.
4. The results of any laboratory tests – laboratory data and soil index properties for soil samples.
5. The effect construction and placement of structures will have on the slope over the estimated life of the structure.
6. Vulnerability of the site to erosion.
7. The location, dimensions, and estimated depth of any area(s) of slope instability on the site.
8. Description of analysis performed and results of that analysis.
9. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events, such as seismic activity or a 100-year storm event.
10. Assumed or established site and subsurface conditions used in the slope stability analysis (e.g., slope dimensions of any landslides, thickness and strengths of soil and rock units, depth to failure plane if any, groundwater levels, etc.).
11. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on downslope properties.
12. Parameters for design of site improvements, including:
 - a. Building limitations;
 - b. Suitability of on-site soil for use as fill;
 - c. Soil compaction criteria;
 - d. Proposed angles and heights of cut and fill slopes;
 - e. Appropriate foundations and retaining structures. These should include allowable bearing capacities and lateral earth pressures appropriate for the design of foundations and walls, installation considerations, and estimates of settlement performance;
 - f. Recommendations for drainage and subdrainage and utility line improvements for collection, transport, treatment, discharge, and/or recycling of water, including consideration of on-site septic system disposal volumes where the additional volume will affect the landslide hazard area;
 - g. Earthwork recommendations, including clearing and site preparation criteria, fill placement, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary;
 - h. Mitigation of adverse site conditions, including slope stabilization measures and seismically unstable soils, if appropriate; and
 - i. Stability:

- i For terrain containing no obvious instability or identified landslides, the proposed site grading or structures shall not reduce the existing slope stability on the development site or adjacent sites to less than a factor of safety of 1.5 for static conditions and 1.2 for dynamic conditions.
 - ii For terrain containing active or inactive landslides or for proposed structures, cuts, fills or roads near designated or identified areas of instability, the proposed development shall not decrease the factor of safety below the limits of 1.5 for static conditions and 1.2 for dynamic conditions at or adjacent to the development location.
 - iii The Administrator may consider lower factors of safety, if the qualified professional provides a detailed explanation that satisfies the Administrator regarding why lower factor of safety values present an acceptable level of risk to the development.
 - iv Designs that require regular or periodic maintenance to maintain their level of function are excluded from long-term slope stabilization measures.
- E. Incorporation of Previous Study. Where a valid critical areas assessment or geotechnical engineering 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 assessment or report may be incorporated into the required critical area assessment. The applicant shall submit a hazards assessment detailing any changed environmental conditions associated with the site.
- F. Mitigation of long-term impacts. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains or reduces the preexisting level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected life span 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 preexisting conditions following abandonment of the activity.