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Shoreline Management Program Update Proposed Amendments to WCC Chapter 16.16 Critical Areas Amended Draft Approved Pursuant to Resolution 2022-027 and incorporating ECY's Required Amendments



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Planning and Development Services
Whatcom County
8/30/2024

**Amended Draft Approved Pursuant to Resolution 2022-027 and incorporating
ECY's Required Amendments**

**Chapter 16.16
CRITICAL AREAS**

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Article 1. Purpose and Intent

16.16.100 Purpose and Intent.

- A. The purposes of this chapter ~~is~~ ~~are~~ to ~~help achieve~~~~carry out~~ the goals of the Whatcom County comprehensive plan and the State of Washington Growth Management Act (Chapter [36.70A](#) RCW) and its implementing rules by designating and classifying critical areas, and by protecting the functions and values of critical areas and the ecological processes that sustain them, while allowing for appropriate economically beneficial or productive use of land and property. Critical areas regulated under this chapter include geologically hazardous areas, frequently flooded areas, critical aquifer recharge areas, wetlands, and habitat conservation areas. This chapter seeks to maintain harmonious relationships between human activity and the natural environment.
- B. The Growth Management Act requires the designation of critical areas and the adoption of regulations for the protection of such areas by all counties and cities. The Washington Department of Commerce has adopted minimum guidelines in Chapter [365-190](#) WAC detailing the process involved in establishing a program to protect critical areas. “Protection” in this context means preservation of the functions and values of the natural environment, or to safeguard the public from hazards to health and safety. Critical areas that must be protected include the following areas and ecosystems:
1. Wetlands;
 2. Areas of critical recharging effect on aquifers used for potable water;
 3. Fish and wildlife habitat conservation areas;
 4. Frequently flooded areas; and
 5. Geologically hazardous areas.
- C. By regulating development and minimizing critical area alterations, this chapter seeks to:
1. Reduce harm due to landslides, earthquakes, erosion, volcanic events, flooding, and other natural hazards.
 2. Minimize unnecessary maintenance of public facilities, and costs associated with property damage, emergency rescue relief operations, and environmental degradation.
 3. Protect against adverse impacts to water quality and quantity resources.
 4. Alert appraisers, assessors, real estate agents, owners, potential buyers or lessees, and other members of the public to natural conditions that pose a hazard or otherwise limit development.
 5. Protect wetlands, floodplains, critical aquifer recharge areas, and habitat conservation areas by applying the best available science to ensure no net loss of ecological functions and values.
 6. Protect species listed as threatened or endangered and their habitats.
 7. Protect unique, fragile, and/or valuable elements of the environment, including ground and surface waters, wetlands, anadromous fish species, shellfish, and other fish and wildlife and their habitats.
 8. Provide County officials with information to approve, condition, or deny project proposals.
 9. Protect property rights, while allowing for economic development, including agriculture, and allowing for the development and maintenance of adequate and appropriate public services and essential public facilities.

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10. Prevent adverse and cumulative environmental impacts to critical areas and mitigate unavoidable impacts.
 11. Coordinate Whatcom County's critical areas protection activities and programs with those of other jurisdictions.
 12. Coordinate environmental reviews and permitting of proposals with other departments and agencies to avoid duplication and delay.
 13. Allow for reasonable use of property in accordance with the provisions of WCC [16.16.270](#).
 14. Establish critical areas protection standards and procedures that are consistent with state and federal regulations pertaining to critical areas.
- D. The goals, policies, and purposes set forth in this chapter serve as a basis for exercise of the County's substantive authority under the State Environmental Policy Act (SEPA) and the County's SEPA rules.
- E. The County's enactment or enforcement of this chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.
- F. Nothing in this chapter is intended to preclude or discourage beneficial actions that protect, restore, and/or maintain critical areas or minimize risks associated with critical areas.
- G. Consistent with Whatcom County's high standard of staff conduct, County staff shall observe all applicable County, state, and federal ~~and Washington~~ laws regarding entry onto privately owned property.

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Article 2. Administrative Provisions

16.16.200 Authority.

- A. This chapter is adopted under the authority of Chapter 36.70 RCW, which empowers a county to enact a critical area ordinance and provide for its administration, enforcement and amendment, and Chapter 36.70A RCW and Article 11 of the Washington State Constitution.
- B. The Director shall administer and enforce the provisions of this chapter and have the responsibility for reviewing development proposals for compliance with this chapter. Additionally, s/he shall also have the:
1. Authority to approve, deny, or condition permits in accordance with the standards set forth herein.
 2. Authority to convene an interdisciplinary team to assist in reviewing development proposals or to solicit review from outside experts in accordance with WCC 16.16.220(C) (Interdisciplinary Team).
 3. Authority to post a stop work order pursuant to WCC 16.16.285 upon a person undertaking activity within a critical area or buffer in violation of this chapter.
 4. Any additional responsibility and/or authority specifically provided for in this chapter.
 5. For project permits subject to consolidated review the Director's authority shall transfer to another County decision maker when another decision maker is specified for a separate project permit. In such cases, the Director shall ensure that all procedural requirements of this chapter are met and shall make a recommendation to the designated decision maker as to how the provisions of this chapter apply to the permit action, including project permits.
- C. The Whatcom County Hearing Examiner authority is provided in is hereby vested with responsibility and authority to perform the following duties:
1. Those duties as assigned in WCC Chapter 2.11 (Hearing Examiner).
 2. Those duties as assigned in WCC Title 22 (Land Use and Development)
 3. To grant or deny variances to the standards of this Chapter pursuant to WCC 16.16.275 (Variances).
 4. To grant, condition, or deny reasonable use exception permits for all developments affecting critical areas pursuant to WCC 16.16.270 (Reasonable Use Exceptions).
 5. To decide on appeals of administrative decisions issued by the Director.
- D. In granting, revising, or extending a permit, the Director, or Hearing Examiner as applicable, may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other features of the proposed development deemed necessary to assure that the development is consistent with criteria set forth in this chapter. In cases involving unusual circumstances or uncertain effects, a condition may be imposed to allow for future review or reevaluation to assure conformance with this chapter. The Director and/or Hearing Examiner shall render a final decision in accordance with the timelines established in WCC Chapter 22.05, as applicable. All decisions of the Director and Hearing Examiner may be appealed pursuant to WCC 22.05.160.

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16.16.205 Authorizations Required.

- A. No action shall be taken by any person, ~~company, agency, governmental body (including Whatcom County), applicant, owner, or owner's agent, which, that~~ results in any alteration of a critical area or its setback or buffer without prior authorization by submitting an application ~~to the technical administrator on a form provided by Whatcom County~~ and obtaining either the required permit or an approval of a notice of activity, as specified herein.
- B. No land use ~~development project~~ permit, construction permit, or land division approval required by County ordinance shall be granted until the County decision maker has determined that the applicant has complied with the applicable purposes, requirements, objectives, and goals of this chapter including the mitigation standards set forth in WCC [16.16.260](#).
- C. Project permits shall comply with all provisions of this chapter, WCC Title [22](#) and the department's administrative manual.
- D. The requirements of this chapter shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA) (RCW Chapter [43.21C](#)), as locally adopted (WCC Chapter [16.08](#)). Any conditions required pursuant to this chapter shall be coordinated with the SEPA review and threshold determination.
- E. Areas characterized by a particular critical area may also be subject to other regulations established by this chapter due to the overlap or multiple functions of some critical areas. When one critical area adjoins or overlaps another, the more restrictive standards shall apply.

Commented [CES2]: Definition of person now covers these.

16.16.210 Applicability and Severability.

This chapter shall be consistently applied to any alteration or development within geographical areas of unincorporated Whatcom County that meets the definition and criteria for critical areas and critical area buffers ~~or setbacks~~ as set forth in this chapter. No development shall be constructed, located, extended, modified, converted or altered, or land subdivided without full compliance with this chapter. Should any section or provision of this chapter be declared invalid, such decision shall not affect the validity of this chapter as a whole.

16.16.215 Relationship to Other Jurisdictions.

- A. Permit applicants are responsible for complying with all federal, state, tribal, and local regulations that may pertain to a proposed development. Compliance with the provisions of this chapter does not necessarily constitute compliance with other regulations and permit requirements.
- B. In cases where other agencies have jurisdiction over critical areas and the ~~technical administrator~~ [Director](#) determines that the permit conditions imposed by such agencies are no less protective and satisfy the requirements of this chapter, those permit conditions may be substituted as the conditions of approval for the requirements of this chapter. Such agencies may include, but are not limited to, the Lummi Nation; the Nooksack Tribe; the United States Army Corps of Engineers; the United States Environmental Protection Agency; the United States Fish and Wildlife Service; the National Marine Fisheries Service or NOAA Fisheries; and the Washington State Departments of Ecology, Natural Resources, and Fish and Wildlife.

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- C. The County shall make detailed written findings required by WCC Chapter [22.05](#) and WCC [16.16.250](#) when adopting conditions of another jurisdiction's permit. Such requirements shall be a condition of critical area approval and enforceable by the County. In the event that there is a conflict between permit requirements and the standards of this chapter, the more restrictive standards shall apply.
- D. The County shall notify the applicant in writing when adopting other agencies' conditions pursuant to this section.

16.16.220 Identification ~~and mapping~~ of Critical Areas.

A. **Critical Area Maps.** The County has identified critical areas and areas where the conditions under which critical areas typically occur and/or have the potential to occur. The approximate location and extent of critical areas within the County's jurisdiction are shown on maps; ~~however, this information is for increasing public awareness of critical areas. These "static" maps may be too inexact for regulatory purposes. These maps which~~ shall be available at the ~~Department of~~ Planning and Development Services ~~department~~ and online for public inspection.

1. Property owners, the ~~technical administrator~~ Director, and/or members of the public may use these maps as a general guide, but the maps do not provide a comprehensive accounting of areas subject to this chapter nor do they provide a definitive critical areas designation. ~~Maps showing known critical areas are only for information or illustrative purposes. Critical area locations and boundaries shown on the County's maps are approximate and do not include buffers that may be associated with critical areas, and some critical areas may not be shown on the maps at all. It is also possible that some maps showing critical areas in certain areas may not be accurate.~~

2. Planning and Development Services has the authority to update critical areas maps and shall do so as new critical areas are identified and as new information becomes available.

3. The approximate location and extent of frequently flooded areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as new hazard areas are identified and as new information becomes available. This article does not imply that land outside mapped frequently flooded areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Whatcom County, any officer or employee thereof, or the Federal Insurance and Mitigation Administration (FIMA), for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

B. **Identification.** ~~Field investigation, analysis by a qualified professional, and/or consideration of other sources of credible scientific information may be required to confirm the presence or absence of a critical area and its boundaries and buffers.~~ When County critical area maps, indicators, or other sources of credible information indicate that a site may be located in, contain, or abut critical areas or their buffers or setbacks, the Director shall require technical studies in accordance with the

Commented [CES3]: Moved from 16.16.410

Commented [CES4]: Moved to 16.16.250 (Review Process)

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~~requirements for that critical area specified herein to determine the extent of critical areas on the property.~~

Commented [CES5]: Moved from 16.16.250

- C. **Interdisciplinary Team.** The Director may call upon outside expertise including an interdisciplinary team if s/he determines that additional technical assistance is required to assess a critical areas development proposal or ensure the application of best available science.
1. The Director will coordinate this effort and seek advice from the team.
 2. The interdisciplinary team shall include the applicant and/or their technical representative, local, state, or federal agency or tribal representatives with expertise in the field, and/or independent qualified professionals with expertise relating to the critical area issue.
 3. The functions of the interdisciplinary team are to field check and verify critical area determinations/boundaries and assess species/habitat presence by providing written peer review of the information included with an application, identify areas of concern in the application of best available science, provide professional opinions and recommendations relevant to the provisions of this chapter, and help focus the preparation of subsequent reports and environmental documentation on the most relevant issues.
 4. In lieu of convening an interdisciplinary team, the County may require third-party review by a qualified professional for any development proposal, mitigation plan, mitigation bank proposal, or other project for which additional technical expertise is needed. The cost of the third-party review shall be the permit applicant's responsibility.

~~C. A. Planning and Development Services has the authority to update critical areas maps and shall do so as new critical areas are identified and as new information becomes available.~~

16.16.225 Regulated activities General Regulations.

- A. ~~The following activities shall be subject to the provisions of this chapter when they occur within critical areas or their buffers or will impair the functions and values of a critical area:~~
1. ~~Clearing, grading, dumping, excavating, discharging, or filling with any material. This includes creating impervious surfaces.~~
 2. ~~Constructing, reconstructing, demolishing or altering the size of any structure or infrastructure, subject to the provisions for a nonconforming structure pursuant to WCC 16.16.275, Chapter 20.83 WCC, and WCC 23.50.070.~~
 3. ~~Any other activity for which a county permit is required, excluding permits for interior remodeling.~~
- A. General regulations apply to all critical areas and critical area buffers. Specific critical area articles describe standards applied to authorized alterations.
- B. Alteration of critical areas and/or buffers is prohibited except when any impacts are mitigated pursuant to this Chapter, and:
1. Alteration is approved pursuant to the reasonable use or variance provisions of WCC 16.16.270 and 16.16.273, respectively; or
 2. Alteration is necessary to accommodate an essential public facility or public utility where no feasible alternative location will accommodate the facility and the facility is located, designed,

Commented [RE6]: Deleted, as it is redundant with 16.16.235(A)

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and constructed to minimize and, where possible, avoid critical areas disturbance to the maximum extent feasible; or

3. Alteration is necessary to accommodate an approved water-dependent use and ~~any~~ associated development, ~~use, or /activity and/or the development activities~~ listed in WCC Title ~~23.90.130(B)(7)(a)~~ when permitted in accordance with the Whatcom County Shoreline Management Program (SMP); provided, that such development is operated, located, designed and constructed to minimize and, where possible, avoid critical areas disturbance to the maximum extent feasible; or

4. Alteration is part of an essential element of an activity allowed by this chapter and all feasible measures to avoid and minimize impacts have been employed. Such feasible measures shall include, but not be limited to, clustering where permitted by zoning and as appropriate to protect critical areas. The purposes of clustering shall be to minimize adverse effects of development on critical area functions and values, minimize land clearing, maintain soil stability, preserve native vegetation, provide for wildlife corridors, maintain hydrology, and mitigate risk to life and property; or

5. ~~Alteration is associated with an exempt activity under WCC 16.16.230, or is allowed pursuant to the notification provisions of WCC 16.16.235, or is allowed pursuant to the specific regulatory standards for each designated critical area, as enumerated in the subsequent articles of this chapter; or~~

- 6-5. Alteration is associated with an alternative mitigation plan or watershed-based management plan approved pursuant to WCC 16.16.261 or 16.16.262, respectively; or

6. Alteration is associated with a conservation farm plan pursuant to Article 8 of this chapter; or

7. ~~Alteration of Type III or IV wetlands not subject to WCC Title 23 that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area; or;~~

8. ~~Alteration of a shoreline habitat conservation area buffers as allowed by Title 23 (Shoreline Management Program).~~

C. ~~Development proposals shall seek to maintain ecological connectivity and habitat corridors whenever possible. Restoration of ecological connectivity and habitat corridors shall be considered a priority restoration and mitigation action.~~

D. ~~In order to preserve native plant communities within shoreline jurisdiction and/or critical areas and their buffers, associated with marine, river, or lake shorelines and wetlands, mitigation sequencing shall be applied during site planning for uses and activities so that the design and location of the structure or development minimizes native vegetation removal. Development, uses, or activities that require vegetation clearing shall be designed to avoid the following, in order of preference:~~

1. Native trees;
2. Other native vegetation;
3. Nonnative trees; and
4. Other nonnative vegetation.

Commented [CES7]: Already addressed by (4)

Commented [DOE-Req8]: Required Change – This change is based on conversations with Whatcom County clarifying that this exception does not apply within shoreline jurisdiction.

Commented [CES9]: Policy change: This would allow “alteration of Type III or IV wetlands that have a habitat area score of less than 6 when associated with an approved commercial development within an Urban Growth Area” when impacts are mitigated. This would allow the alteration of certain wetlands in Urban Growth Areas (UGAs) (in particular, Birch Bay) so as to encourage development of commercially zoned property. Commercial development in Birch Bay has been stifled because so much of the remaining commercially zoned property contains small, isolated wetlands. Yet under the Growth Management Act we’re supposed to encourage development within UGAs so that development doesn’t sprawl to less developed areas of the County.

Commented [CES10]: Policy change: This would allow modification of shoreline buffers pursuant to the new system being proposed in the SMP update.

Commented [AP11]: Added per SMP Scoping Document, Item #8b.

Commented [P/C12]: P/C moved to amend. Passed 7-0

Commented [CES13]: To provide clear guidance on order of preference in what vegetation should be avoided when clearing in shorelines.

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16.16.230 ~~Exempt~~ Activities Allowed without Notification.

~~The following activities do not require authorization from Whatcom County. However, Exemptions from permit requirements of this chapter shall not be construed deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction. The following activities as specified are exempt from the requirements of this chapter~~ Activities within the shoreline jurisdiction (WCC 23.20.10) may require a shoreline permit or statement of exemption.

- A. ~~Class I, II, III, and IV special (not Class IV general) forest practices regulated by the Washington State Department of Natural Resources conducted in accordance with the applicable standards of the Washington State Forest Practices rules, WAC Title 222, except where the lands have been or are proposed to be converted to a use other than commercial forest product production.~~
- B. Maintenance of lawfully established vegetation, landscaping, and gardens within a regulated critical area or its buffer, ~~including, but not limited to, cutting, mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden crops, pruning and planting of noninvasive ornamental vegetation or indigenous native species (excluding trees)~~ to maintain the general condition and extent of such areas; provided, that native growth protection areas, or other areas protected via conservation easements or similar restrictive covenants are not covered by this exception.
- C. Maintenance activities necessary to implement approved mitigation plans.
- D. Low impact activities, when the activity does not cause adverse impacts, such as hiking, canoeing, viewing, nature study, photography, hunting, fishing, education, or scientific research.
- E. Activities undertaken to comply with a United States Environmental Protection Agency Superfund-related order, or a Washington Department of Ecology order pursuant to the Model Toxics Control Act (such as the Swift Creek Sediment Management Action Plan), or a Department of Homeland Security order that specifically preempts local regulations in the findings of the order.
- F. Maintenance and/or repair of lawfully established single-family residences and appurtenant features; provided, that the activity does not further alter, impact, or encroach upon critical areas or buffers or further affect their functions. The maintenance activity shall not result in increased risk to life or property.
- G. Fish, wildlife, and/or wetland restoration or enhancement activities not required as project mitigation; provided, that the project is approved by the U.S. Fish and Wildlife Service, the Washington State Department of Ecology, Washington State Department of Fish and Wildlife, or other appropriate local, state, federal, or tribal jurisdiction and/or that meet the criteria of RCW 77.55.181(1) and that are reviewed and approved according to the provisions of RCW 77.55.181.

16.16.235 Activities Allowed with Notification.

- A. The activities specified in subsection B of this section are authorized within critical areas and buffers; provided, that:

Commented [DOE-Req14]: Required Change – This change is required for consistency with minimum procedural requirements for permit review in WAC 173-27. There may be instances where a shoreline permit or statement of exemption are required for developments that may otherwise be exempt outside of shoreline jurisdiction. The required language mimics that included in WCC 16.16.235.1 – Activities Allowed with Notification

Commented [CS15]: Amended pursuant to Resolution 2022-027

Commented [P/C16]: P/C moved to delete. Carries 7-0-0-2

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1. The applicant provides a written notification to the ~~technical administrator~~ Director on a form provided by the Department. Activities within the shoreline jurisdiction (WCC 23.20.010) may ~~shall~~ require a shoreline permit or statement of exception.
 2. The notification will provide a site plan (in a common scale), photos, and specific information describing the activity and the mitigation to be implemented, if required ~~by the technical administrator~~, to document that the activity will not result in increased risk to public health, safety, and welfare; that adverse impacts to critical areas are minimized; and that disturbed areas are restored as soon as possible following the activity.
 3. Notification shall be submitted ~~to the technical administrator~~ at least 10 full business days prior to initiating work.
 4. Upon receipt of the notification, the ~~technical administrator~~ Director shall issue a decision within 10 days unless additional information is required from the applicant or other review processes necessitate additional time. Additionally, the ~~technical administrator~~ Director may provide guidance on best management practices for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and use of chemical applications to be used in the execution of the activities listed in subsection B of this section.
 5. Unless otherwise specified, notification shall be valid for one year per activity; provided, that there is no change in the scope of the project including, but not limited to, the location and/or extent of the activity allowed under the notification process.
- B. Activities Allowed with Notification.
1. **Emergency construction or activity** necessary for the immediate preservation of the public health, safety, and welfare as determined by the ~~technical administrator~~ Director; provided, that:
 - a. An emergency is an unanticipated and imminent threat to public health, safety, or the environment that requires immediate action within a time period too short to allow full compliance with this chapter.
 - b. Emergency construction does not include development of new permanent protective structures where none previously existed. Where the ~~technical administrator~~ Director determines that new protective structures are the appropriate means to address an emergency situation, the project proponent shall either obtain any permits that would have been required absent an emergency, pursuant to Chapter 90.58 RCW, Chapter 173-27 WAC, or this chapter, or remove the structure upon abatement of the emergency situation.
 - c. Within the jurisdiction of the Whatcom County Shoreline Management Program (WCC Title 23), all emergency construction shall be consistent with the policies and procedural requirements of WCC Title 23 and this chapter.
 - d. The applicant shall make a reasonable attempt to contact the ~~technical administrator~~ Director prior to activity; provided, that when prior notice is not feasible, notification of the action shall be submitted to the ~~technical administrator~~ Director as soon as the emergency is addressed and no later than 14 days following such action.

Commented [DOE-Req17]: Required Change – This change clarifies the fact that some actions allowed through this process may not meet the definition of "Development" as defined by the SMP. In such cases, a shoreline permit or statement of exemption would technically not be required. In such instances, any applicable standards of the SMP would still apply but the process outlined within this section could still be utilized. For example, removal of a single hazard tree would not require a development permit or exemption per the SMP, however mitigation would still be required consistent with the SMP, including applicable sections of the CAO.

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2. **Maintenance, operation, and/or repair of existing infrastructure improvements**, including dikes and drainage ditches, rights-of-way, trails, roads, fences, and utilities or utility corridors; provided, that the activity does not further alter, impact, or encroach upon critical areas or buffers or further affect their functions. The maintenance or repair activity shall not result in increased risk to life or property. Maintenance or repair shall be allowed pursuant to the provisions set forth in this chapter; provided, that:
 - a. The applicant shall submit to the ~~technical administrator~~ Director a written description of the maintenance activity with all of the following general information:
 - i. Type, timing, frequency, and sequence of maintenance activity to be conducted;
 - ii. Type of equipment to be used (hand or mechanical);
 - iii. Manner in which the equipment will be used; and
 - iv. Best management practices to be used.
 - b. The applicant's written description shall be valid for up to five years; provided, that there is no significant change in the type or extent of maintenance activity.
3. **Utility Installation**. Construction of electrical, telecommunications, cable, water, sewer, and other utility lines and equipment within existing structures, facilities, infrastructure systems, development areas and uses, utility easements, and public and private rights-of-way, provided:
 - a. There is no further intrusion into geologically hazardous areas, frequently flooded areas, wetlands, or fish and wildlife habitat conservation areas or their buffers;
 - b. Soil erosion is controlled;
 - c. Disturbed areas are promptly stabilized; and
 - d. Any adverse impacts to critical areas are mitigated in accordance with this chapter.
- ~~3.4~~ **Select Removal or Pruning of Vegetation Management**. No vegetation shall be removed from a wetland, habitat conservation area, coastal or riverine erosion hazard area, or landslide hazard area, or their buffers, unless specifically listed in subsection (a) and meeting the conditions of subsection (b), below subject to the following:
 - a. Exceptions. ~~Vegetation removal or pruning will be done in a manner that minimizes disturbance and prevents adverse effects on soil stability, fish or wildlife habitat, water quality, or water quantity.~~
 - i. Except for lawn, pasture, ornamental vegetation, and similar introduced vegetation pursuant to WCC 16.16.230(B), provided all areas of vegetation removal are revegetated ~~no vegetation shall be removed from a wetland, habitat conservation area, coastal or riverine erosion hazard area, or landslide hazard area or their buffers unless otherwise authorized by the technical administrator for safety reasons.~~
 - ii. Restoration projects.
 - iii. Maintenance of legally established views so long as the criteria subsection (B)(6) of this section are met.
 - iv. The felling of hazard trees within critical areas and buffers, with an approved tree risk assessment completed by a qualified professional.

Commented [CES18]: Added to address Scoping Document item #12a.

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v. To improve overall slope or bank stability selective vegetation limbing, clearing, and/or thinning may be allowed in landslide hazard areas and/or riverine and coastal erosion hazard areas and/or their buffers pursuant to an approved habitat management plan, which shall be prepared by a qualified professional and reviewed by a licensed geologist or geotechnical engineer.

b. Conditions.

i. Vegetation removal or pruning will be done in a manner that minimizes disturbance and prevents adverse effects on soil stability, fish or wildlife habitat, water quality, or water quantity. Shrubs shall not be pruned to a height of less than 6 feet.

ii. Cut vegetation shall be left within the critical area or buffer where practicable unless removal is warranted due to the presence of an established disease infestation, noxious weeds, environmental or other hazards, or because of access or maintenance needs if the area is a utility or access right-of-way.

iii. All limb removal, crown thinning, or pruning shall meet the American National Standard Institute (ANSI) tree pruning standards. Pruning shall retain branches that overhang the water. No tree topping shall occur. In no circumstance shall removal of more than one-fourth (1/4) of the original crown be permitted within a three year period.

iv. Hazard Tree Mitigation.

(A) The landowner shall replace any trees that are removed at a three to one ratio (3:1). When approved by the Director, a landowner may choose to convert a hazard tree proposed for removal to a wildlife snag as an alternative if recommended by a certified arborist.

(B) In addition to the requirements of WCC 20.80.300 through 20.80.380 (Landscaping), replacement trees shall meet the following criteria:

(1) Replacement trees shall be exclusively species native to the coastal region of the Pacific Northwest.

(2) At a minimum, 50% of replacement trees shall be evergreen species. If only one replacement tree is required, it shall be an evergreen species, unless otherwise approved by the Director.

~~4. The felling of hazard trees within critical areas and buffers, with an approved tree risk assessment completed by a qualified professional.~~

5. View Corridors. Clearing and/or thinning for limited view corridors shall be allowed ~~Except in~~ landslide hazard areas and buffers and riverine and coastal erosion hazard areas and buffers, the clearing, pruning, and revegetation of buffer areas for view purposes where it does not adversely impact ecological and/or aesthetic values, and/or slope stability, provided; ~~provided:~~

a. The proposed view corridor is not located in a landslide, riverine, or coastal erosion hazard areas hazard areas or their buffers.

b. Clearing shall only be allowed when the applicant can demonstrate that a limited view corridor cannot be achieved through limb removal, crown thinning, or pruning. With

Commented [AP19]: This language is modeled after Tree Replacement Requirements for Lake Whatcom.

Commented [CES20]: New text added per Scoping Document, Item #18a.

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clearing, a combination such strategies may be required to establish a view shall be required.

~~a-c.~~ A window or view opening is limited to the minimum necessary for view purposes and shall not exceed a cumulative total of 15% percent of buffer length, ~~unless the applicant can demonstrate to the technical administrator's satisfaction that a larger dimension is warranted because of slope or other site considerations.~~ Trees greater than 12 inches in diameter at breast height shall be preserved, but may be shaped, windowed/thinned or pruned. ~~Whenever possible, view corridors shall be located in areas dominated with non-native vegetation and invasive species.~~

~~b-d.~~ Significant ~~t~~Trees greater than 12 inches in diameter at breast height shall be preserved, but may be shaped, windowed/thinned or pruned.

~~e-e.~~ Low-growing native vegetation shall be retained and/or planted in the view corridor to provide habitat, stabilize the area, and achieve dense growth.

~~d.~~ ~~This activity shall not be conducted more than once every 10 years for any individual residential property.~~

~~e-f.~~ Clearing shall not take place where increased risks or adverse impacts, including cumulative impacts, to critical area functions and values are likely to occur.

~~f-g.~~ This provision does not apply to open space set aside in a subdivision or other approval to which specific conditions are attached that prohibit clearing of vegetation without a written approval or permit.

~~g-h.~~ View areas established under this section shall be considered lawfully established and may be maintained as provided for in subsection (B)(~~34~~) of this section.

6. **Navigation Aids.** The installation of navigation aids and boundary markers in accordance with applicable state and federal laws or the installation of mooring buoys in accordance with the Department of Fish and Wildlife design guidelines and the Whatcom County Shoreline Management Program (WCC Title [23](#)).
7. **Site investigation.** Routine site investigation work in wetlands, landslide hazard areas, and riverine and coastal erosion hazard areas. This includes geotechnical soil borings, groundwater monitoring wells, percolation tests, sediment sampling, and similar or related activities required for land use application submittals or permit compliance. Land survey and shallow soil test pits dug in conjunction with wetland delineation studies do not require notification.
8. **Household Garden Products.** ~~f~~Fertilizers or ~~household~~ herbicides to address noxious weed infestation may be used in critical area buffers, but not in critical areas. Either must be applied at times and rates specified on the label in accordance with Washington State Department of Agriculture and other applicable regulations.
9. **Ditch Maintenance.** ~~Routine maintenance of ditches e~~On agricultural lands maintenance of ditches is allowed; provided, that all of the following are met:
 - a. The maintenance is necessary to support ongoing agricultural operations;
 - b. The maintenance activity does not expand the dimensions of the drainage channel beyond the original, lawfully established dimensions;

Commented [Co/C21]: Amended pursuant to Resolution 2022-027

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- c. The agricultural activities are conducted pursuant to an approved conservation farm plan prepared pursuant to Article 8 of this chapter;
 - d. The farm operator obtains a hydraulic project approval (HPA), if required, from the Washington State Department of Fish and Wildlife (WDFW) prior to the maintenance activity; and
 - e. The farm operator provides a copy of the HPA to the ~~technical administrator~~ Director as part of the written notification.
10. Alteration or removal of beaver-built structures two years old or less; provided, that:
- a. There is no adverse impact to wetland or river or stream functions.
 - b. The property owner obtains an HPA from WDFW (if required) prior to the maintenance activity.
 - c. The property owner provides a copy of the HPA to the ~~technical administrator~~ Director as part of the written notification.

16.16.240 Technical administrator and hearing examiner authority.

~~The technical administrator is the Whatcom County director of planning and development services or his/her designee. The hearing examiner is appointed by the county council. The technical administrator and the county hearing examiner shall administer and enforce the provisions of this chapter pursuant to the following:~~

- ~~A. The technical administrator shall have the primary responsibility for reviewing development proposals for compliance with this chapter and is authorized to approve, deny, or condition permits in accordance with the standards set forth herein. The technical administrator shall also have the following authority:
 - ~~1. Authority to convene an interdisciplinary team to assist in reviewing development proposals or to solicit review from outside experts in accordance with WCC 16.16.245.~~
 - ~~2. Authority to grant, condition, or deny reasonable use permits for single-family residential building permits within critical areas and/or their buffers.~~
 - ~~3. Authority to grant, condition, or deny reasonable use permits for other development proposals that would affect critical area buffers, but not the critical areas themselves.~~
 - ~~4. Authority to serve a cease and desist order pursuant to WCC 16.16.285 upon a person undertaking activity within a critical area or buffer in violation of this chapter.~~
 - ~~5. Any additional responsibility and/or authority specifically provided for in the subsequent articles of this chapter.~~~~
- ~~B. The technical administrator's authority shall transfer to another county decision maker when another decision maker is specified for a separate project permit. In such cases, the technical administrator shall ensure that all procedural requirements of this chapter are met and shall make a recommendation to the designated decision maker as to how the provisions of this chapter apply to the permit action, including project permits.~~
- ~~C. The Whatcom County hearing examiner is hereby vested with responsibility and authority to hear appeals and perform the following duties:~~

Commented [RE22]: Moved to 16.16.200 (Authority)

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- ~~1. Authority to grant or deny variances.~~
- ~~2. Authority to grant, condition, or deny reasonable use permits for all developments, except single-family building permits, affecting critical areas.~~
- ~~3. Authority to decide on appeals of administrative decisions including, but not limited to, reasonable use permits issued by the technical administrator.~~
- ~~4. Authority to hold public hearings pursuant to Chapter 22.05 WCC.~~

~~D.A. In granting, revising, or extending a permit, the technical administrator, or hearing examiner as applicable, may attach such conditions, modifications, or restrictions thereto regarding the location, character, and other features of the proposed development deemed necessary to assure that the development is consistent with criteria set forth in this chapter. In cases involving unusual circumstances or uncertain effects, a condition may be imposed to allow for future review or reevaluation to assure conformance with this chapter. The technical administrator and/or hearing examiner shall render a final decision in accordance with the timelines established in Chapter 22.05 WCC, as applicable. All decisions of the technical administrator and hearing examiner may be appealed pursuant to WCC 22.05.160.~~

16.16.245 Interdisciplinary team.

The technical administrator may call upon outside expertise including an interdisciplinary team if the technical administrator determines that additional technical assistance is required to assess a critical areas development proposal or ensure the application of best available science.

- ~~A. The interdisciplinary team shall include the applicant and/or their technical representative, local, state, or federal agency or tribal representatives with expertise in the field, and/or independent qualified professionals with expertise relating to the critical area issue.~~
- ~~B. The functions of the interdisciplinary team are to field check and verify critical area determinations/boundaries and assess species/habitat presence by providing written peer review of the information included with an application, identify areas of concern in the application of best available science, provide professional opinions and recommendations relevant to the provisions of this chapter, and help focus the preparation of subsequent reports and environmental documentation on the most relevant issues.~~
- ~~C. The technical administrator will coordinate this effort and seek advice from the team.~~
- ~~D. In lieu of convening an interdisciplinary team, the county may require third-party review by a qualified professional for any development proposal, mitigation plan, mitigation bank proposal, or other project for which additional technical expertise is needed. The cost of the third-party review shall be the permit applicant's responsibility.~~

16.16.250 Submittal requirements and Critical Areas Review Process.

- A. All applicants shall complete a prescreening meeting with the ~~technical administrator~~ Director prior to submitting an application subject to this chapter. The purpose of this meeting shall be to discuss the requirements for a complete application; the critical area standards and procedures; to review conceptual site plans prepared by the applicant; to discuss appropriate investigative techniques and methods; and to determine reporting requirements.

Commented [RE23]: Moved to 16.16.220(C) (Interdisciplinary Team)

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B. Review and approval of a proposed development within a critical area or its buffer may be initiated through the application for any project permit in Whatcom County on department-approved forms and containing the materials listed in the department's Administrative Manual.

~~When County critical area maps, indicators, or other sources of credible information indicate that a site may be located in, contain, or abut critical areas or their buffers or setbacks, the shall require technical studies in accordance with the requirements for that critical area specified herein.~~

Commented [CES24]: Moved to 16.16.220

C. The ~~technical administrator~~ Director shall be responsible, in a timely manner, to make one of the following determinations regarding critical areas review:

~~1. Initial Determination. When county critical area maps or other sources of credible information indicate that a site may be located, contain or abut critical areas, critical area buffers or setbacks the technical administrator shall require technical studies in accordance with that critical area's specific article.~~

2.1. Determination of Impacts. The ~~technical administrator~~ Director shall use best available science, including but not limited to the County's critical areas maps, his/her field investigation results, his/her own knowledge of the site, information from appropriate resource agencies, or documentation from a scientific or other credible source to determine if the project will more probably than not adversely impact a critical area or its buffer. Identified adverse impacts shall be fully mitigated in accordance with WCC 16.16.260.

~~3.2.~~ Determination of Compliance. If the applicant demonstrates to the satisfaction of the ~~technical administrator~~ Director that the project meets the provisions of this chapter and is not likely to adversely affect the functions and values of critical areas or buffers or provides mitigation to reduce the adverse impact to meet no net loss of the function and values of critical areas or buffers, the ~~technical administrator~~ Director shall make the determination that the proposal complies with this chapter.

4.3. Decision to Approve, Condition, or Deny. The ~~technical administrator~~ Director shall review all pertinent information pertaining to the proposed development and shall approve, approve with conditions, or deny the permit based on their review, and shall provide a detailed written decision. This determination shall be included in the project review record for the project permit in accordance with WCC Chapter 22.05.

D. The ~~technical administrator~~ Director may waive the requirement for critical areas review under this chapter when s/he determines that all of the following conditions are met:

1. The proposed development activity is located on a parcel that received approval of a previous critical areas review within the prior five years, site conditions have not changed, and the applicable regulations have not substantively changed;
2. All critical areas within 300 feet of the new proposed development, use, or activity on the parcel have been identified and delineated and the effects of the proposed development activity have been thoroughly considered in accordance with the most current regulations and best available science;

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3. The activity is in compliance with all permit conditions including mitigating measures, as applicable, that were imposed as part of the prior review and there are no outstanding violations of conditions that were imposed as part of the previous review;
4. The development activity involves a use that is equally or less intensive than the development activity that was subject to the prior permit. Land use intensity shall be based on factors including development density, critical areas impacts, impervious surface, noise, glare, dust, hours of operation, and traffic.

~~E. Submittal Materials.~~

- ~~1. Complete application.~~
- ~~2. A detailed site map drawn to a common scale, or survey, showing at least the following:
 - ~~a. Vicinity map.~~
 - ~~b. Topographic, hydrologic, and vegetative features.~~
 - ~~c. The location and description of known wildlife and habitat features and all known critical areas.~~
 - ~~d. Proposed development activity with dimensions.~~~~
- ~~3. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc. Structures shall be dimensioned.~~

~~F. Elements of a critical area assessment are encouraged to be submitted together for timely review. However, the technical administrator may allow the various components to be submitted independently at different phases of a project if s/he determines piecemeal review will benefit the review process or at the request of the applicant.~~

Commented [CES25]: Deleted because we're moving away from the code listing everything needed in an application and just referring PDS's admin manual, which is referenced in subsection (B) now.

Commented [CES26]: Moved to 16.16.255

16.16.255 Critical Areas Assessment Reports.

- A. When the ~~technical administrator~~ Director determines a need for a critical area assessment pursuant to WCC 16.16.250, s/he shall have the authority to require a critical areas assessment report, to be prepared by a qualified professional and be consistent with best available science. The analysis shall be commensurate with the value or sensitivity of a particular critical area and relative to the scale and potential impacts of the proposed activity. A critical area assessment shall have all of the following elements, unless determined by the ~~technical administrator~~ Director not to be needed:
1. The requirements found in subsections ~~B-(C)~~ and ~~H-(I)~~ of this section;
 2. Geological hazard assessment;
 3. Critical aquifer recharge assessment;
 4. Frequently flooded area assessment;
 5. Wetland assessment;
 6. Fish and wildlife habitat conservation area assessment;
 7. A mitigation plan addressing all mitigation requirements of this title.
 8. Habitat Management Plan, when required by this chapter or Title 23.

~~B. Elements of a critical area assessment are encouraged to be submitted together for timely review. However, at the request of the applicant the Director may allow the various components to be~~

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submitted independently at different phases of a project if s/he determines piecemeal review is reasonable and will benefit the review process.

Commented [CES27]: Moved from 16.16.250

~~B-C.~~ The critical areas assessment report shall:

1. Demonstrate that the submitted proposal is consistent with the purposes and specific standards of this chapter;
2. Describe all relevant aspects of the development proposal and critical areas adversely affected by the proposal including any geological hazards and risks associated with the proposal, and assess impacts on the critical area from activities and uses proposed; and

~~3.~~ Identify impacts of the proposed use/development on habitat corridors, ecological connectivity, and habitat for salmon and forage fish as identified in WCC 16.16.710.

Commented [CES28]: Added per SMP Scoping Document, Items #8b and 8c.

~~3-4.~~ Where impacts are unavoidable, demonstrate through an alternatives analysis that no other feasible alternative exists. Such an analysis shall explore alternatives that might pose fewer impacts or better protect ecological functions, and address such issues as project design, location on the property, and type and location of mitigation, as applicable to the proposed development.

Commented [P/C29]: P/C moved to approve. Passed 7-0

~~4-5.~~ Identify and evaluate the cumulative impacts of individual development proposals to assure that no net loss standards are achieved. Consider the cumulative impacts of the proposed action that includes past, present, and reasonably foreseeable future actions to facilitate the goal of no net loss of critical areas. Such impacts shall include those to wildlife, habitat, and migration corridors; water quality and quantity; and other watershed processes that relate to critical area condition, process, and/or service.

Commented [CES30]: Moved from 23.90.030 30.010 Ecological Protection

~~5-6.~~ Identify proposed mitigation and protective measures as required by this chapter.

~~C-D.~~ The ~~technical administrator~~ Director shall review the critical areas assessment report for completeness and accuracy and shall consider the recommendations and conclusions of the critical areas assessment report to assist in making administrative decisions concerning approval, conditional approval, or denial of the subject project and to resolve issues concerning critical areas jurisdiction and appropriate mitigation and protective measures.

~~E.~~ The Director shall reject or request revision of the field and literature findings and conclusions reached in a critical areas assessment report when s/he can demonstrate that the assessment is inaccurate, incomplete, or does not fully address the critical areas impacts involved.

~~D-F.~~ Critical areas assessment reports shall generally be valid for a period of five years from the date the assessment is approved by the ~~technical administrator~~ Director. Future land use applications may re-require preparation of new or supplemental critical area assessment reports unless it can be demonstrated to the satisfaction of the ~~technical administrator~~ Director that the previously prepared report is adequate for current analysis. The ~~technical administrator~~ Director may also require the preparation of a new critical area assessment report or a supplemental report when new information is found demonstrating that the initial assessment is in error. If the ~~technical administrator~~ Director requires more information in the report, s/he shall make the request in writing to the applicant stating what additional information is needed and why.

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~~F.A. The technical administrator shall reject or request revision of the field and literature findings and conclusions reached in a critical areas assessment report when s/he can demonstrate that the assessment is inaccurate, incomplete, or does not fully address the critical areas impacts involved.~~

F.G. To avoid duplication, the reporting requirements of this chapter shall be coordinated if more than one critical area assessment report is required for a site or development proposal. Similarly, where other agencies' assessments or reports are required pursuant to other state or federal laws, the applicant is encouraged to submit one report that satisfies all such agencies' requirements.

G.H. In addition to a hard copy, applicants shall provide reports and maps to the County in an electronic format that allows site data to be incorporated into the County critical areas database; however, the County may waive the electronic format requirement for single-family building permits. Applicants shall follow Whatcom County electronic submittal guidelines. This requirement shall not be construed as a requirement to use specific computer software, though it must be in a format usable by the County.

H.I. The intent of these provisions is to require a reasonable level of technical study and alternatives analysis pursuant to WCC [16.16.250](#) sufficient to assess potential project impacts and to protect critical areas. At a minimum, a critical areas assessment report shall include the following information:

1. A site plan showing the proposed development footprint and clearing limits, all relevant critical areas and buffers within and abutting the site, a written description of the project, an examination of project on-site design alternatives, and an explanation of why the proposed activity requires a location on, or access across, a critical area and why alternatives are not feasible;
2. A written description of the critical areas and buffers on or in the vicinity of the site, including their size, type, classification or rating, condition, disturbance history, and functions and values. Projects in frequently flooded areas must comply with the reporting requirements of WCC Title [17](#). Projects on or adjacent to geologically hazardous areas shall identify the type of hazard and assess the associated risks posed by the development or that the development may be subject to;
3. An analysis of potential adverse critical area impacts associated with the proposed activity including, but not limited to, effects related to clearing, grading, noise, light/glare, drilling, damming, draining, creating impervious surface, managing stormwater, releasing hazardous materials, and other alterations, and including an explanation of critical area processes and functions that may be affected;
4. An analysis of how critical area impacts or risks will be avoided and/or minimized, and/or an analysis of the proposed measures to prevent or minimize hazards. When impacts cannot be avoided, the report shall include a plan describing mitigation that will be provided to replace critical area functions and values altered as a result of the proposal. The mitigation plan shall be consistent with the provisions of WCC [16.16.260](#) and provide written documentation showing what the applicant considered for each step in the mitigation sequencing and the other applicable articles of this chapter;

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- 5. The dates, names, signatures, and qualifications of the persons preparing the report and documentation of analysis methods including any fieldwork performed on the site; and
- 6. Additional reasonable information requested by the ~~technical administrator~~ Director for the assessment of critical areas impacts or otherwise required by the subsequent articles of this chapter.

16.16.260 General Mitigation Requirements.

A. ~~Developments permitted pursuant to this chapter~~ that adversely impacts or alters a critical area or buffer shall include mitigation sufficient to minimize risks associated with geologic hazards and/or ~~maintain~~ or replace or improve critical areas functions and values. Any proposed development that cannot adequately mitigate critical area impacts as determined by the ~~technical administrator~~ Director shall be denied.

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B. In determining the extent and type of mitigation required, the Director may consider all of the following:

- 1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;
- 2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;
- 3. Observed or predicted trends regarding the gains or losses of specific habitats or species in the watershed, in light of natural and human processes;
- 4. The likely success of the proposed mitigation measures;
- 5. Effects of the mitigation actions on neighboring properties; and
- 6. Opportunities to implement restoration actions formally identified by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.

Commented [CES31]: Was repeated in several articles; moved to general mitigation regs.

C. Though in general on-site mitigation is preferred, the County shall not risk mitigation success or bypass opportunities for improving ecological processes in a watershed by precluding other mitigation options when it is more effective and sustainable. In order to provide the greatest ecological benefit, a combination of mitigation options may be used to achieve no net loss of ecological functions. In some cases it may be necessary to mitigate at multiple sites or on-site and out-of-kind. In determining the extent and type of mitigation required for impacts to critical areas, the Director may consider all of the following when applicable:

Commented [CES32]: Policy change. This would allow off-site mitigation when it's better for the environment and assists w/ developing an offsite buffer mitigation program.

- 1. On-site and in-kind. Unless otherwise approved by the Director, all critical areas impacts shall be compensated by creation or restoration of replacement areas that are in-kind, on-site, and of similar critical area category.
- 2. Off-site and in-kind. The Director may consider and approve off-site mitigation when the applicant demonstrates that greater biological and/or hydrological functions and values will be achieved. The mitigation may include restoration, creation, or enhancement of critical areas

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and/or their buffers. The process to determine the ratios of on-site mitigation shall apply to off-site ratios as well.

3. On-site and out-of-kind. The Director may consider and approve out-of-kind mitigation when the applicant demonstrates an ecological uplift of biological and/or hydrological functions and values will be achieved. The mitigation may include restoration, creation, or enhancement of other types of critical areas and/or their buffers. The process to determine the ratios of out-of-kind mitigation shall be based on a habitat management plan with a functional replacement assessment.
4. Alternative Mitigation Plans pursuant to 16.16.261 (Alternative Mitigation Plans)
5. Use of Mitigation Bank Credits, pursuant to 16.16.263 (Mitigation Banking)

D. Where feasible, mitigation projects shall be completed prior to activities that will disturb habitat conservation areas critical areas or their buffers. In all other cases, mitigation shall be completed concurrently with development as quickly as possible following disturbance and prior to use or occupancy of the activity or development.

E. Construction of mitigation projects shall be timed to reduce impacts; provided, that the Director may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).

Commented [CES33]: Moved from 16.16.760

A-F. Mitigation Sequence.

1. When an alteration or impact to a critical area or buffer is proposed, the applicant shall conduct an alternatives/mitigation sequencing analysis and demonstrate that all reasonable efforts have been taken to mitigate adverse impacts in the following prioritized order:
 - a. Avoiding the adverse impact altogether by not taking a certain action or parts of an action, or moving the action.
 - b. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology and engineering, or by taking affirmative steps to avoid or reduce adverse impacts.
 - c. Rectifying the adverse impact by repairing, rehabilitating, or restoring the affected environment.
 - d. Reducing or eliminating the adverse impact over time by preservation and maintenance operations during the life of the action.
 - e. Compensating for the adverse impact by replacing, enhancing, or providing similar substitute resources or environments and monitoring the adverse impact and the mitigation project and taking appropriate corrective measures.
2. Mitigation shall be provided for all unavoidable adverse alterations of a critical area or buffer. Mitigation for individual projects may include a sequenced combination of the above measures as needed to achieve the most effective protection, compensation for buffer functions and values, or mitigation for critical area functions and values.

B-G. Mitigation Plan.

1. A mitigation plan shall be developed in accordance with an approved critical areas assessment report and be consistent with best available science. Where appropriate, the mitigation plan

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should be compatible with watershed and recovery planning goals for Whatcom County. The intent of these provisions is to require a level of technical study and analysis sufficient to protect critical areas and/or protect developments and occupants from critical areas involving hazards. The analysis shall be commensurate with the value or sensitivity of a particular critical area and relative to the scale and potential impacts of the proposed activity.

2. The mitigation plan shall provide for construction, maintenance, monitoring, and contingencies as required by conditions of approval and consistent with the requirements of this chapter.

3. The mitigation plan shall demonstrate that all reasonable efforts have been taken to provide sufficient mitigation such that the activity does not have significant adverse impacts and results in no net loss of shoreline and critical area ecological functions.

~~3.4.~~ The mitigation plan shall be prepared by a qualified professional; provided, that the ~~technical administrator~~ Director may waive the requirement to hire a qualified professional to prepare a mitigation plan when the required mitigation involves standard planting or enhancement practices. The waiver shall not be granted for mitigation practices involving wetland creation, rehabilitation, and/or restoration.

4.5. The mitigation plan shall contain the following information:

- i. A description and scaled drawings of the activities proposed to reduce risks associated with geologic hazards and/or flooding, and/or to mitigate for impacts to critical area functions and values. This shall include all clearing, grading/ excavation, drainage alterations, planting, invasive weed management, installation of habitat structures, construction sequencing, best management practices, site protection, irrigation, and other site treatments associated with the development activities.
- ii. Specific information on construction or the proposed mitigation activity including timing, sequence, equipment needs, best management practices, and responsible parties.
- iii. A description of the functions and values that the proposed mitigation area(s) shall provide, and/or a description of the level of hazard mitigation provided.
- iv. The goals, objectives, and performance standards that the proposed mitigation action(s) shall achieve or demonstrate consistency with.
- v. A description of how the mitigation area(s) will be evaluated and monitored to determine if the performance standards are being met.
- vi. A program and schedule for construction and post-construction performance monitoring of the mitigation project.
- vii. An evaluation of potential adverse impacts on adjacent property owners resulting from the proposed mitigation and measures to address such impacts. Mitigation projects shall not result in adverse impacts to adjacent property owners.
- viii. Identification of potential courses of action or contingencies, and any corrective measures to be taken if monitoring or evaluation indicates that project performance standards are not being met.
- ix. Plan sheets with scale identified, showing the edge of the critical area and buffer area. The affected critical area and buffer shall be clearly staked, flagged, and/or fenced prior to and

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23.90.030/30.010 Ecological Protection

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during any site clearing and construction to ensure protection for the critical area and buffer during construction.

- x. A description of other permits and approvals being sought, including the need for permits from state and/or federal agencies.
- xi. Additional information as required by the subsequent articles of this chapter.

C.H. Mitigation Monitoring and Maintenance.

1. ~~All mitigation areas shall be maintained and managed to prevent degradation and ensure protection of critical area functions and values subject to field verification by the Director.~~

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2. The ~~technical administrator~~ Director shall have the authority to require that ~~compensatory~~ mitigation projects be monitored annually for at least five years to establish that performance standards have been met. Required monitoring reports shall be submitted to the County annually during the monitoring period to document milestones, successes, problems, and contingency actions of the compensatory mitigation.

- i. ~~At year three, if the mitigation is meeting year 5 performance standards, the technical administrator~~ Director may reduce the monitoring timeframe to three years for minor mitigation projects involving critical area or buffer revegetation or vegetation enhancement, but not for projects involving wetland creation, wetland restoration, stream restoration or other activities that require manipulation of soils or water. ~~All mitigation areas shall be maintained and managed to prevent degradation and ensure protection of critical area functions and values subject to field verification by the technical administrator.~~
- ii. The ~~technical administrator~~ Director shall have the authority to extend the monitoring period, require corrective measures, and/or require additional monitoring reports beyond the initial monitoring period for any project that does not meet the performance standards identified in the mitigation plan, or does not provide adequate replacement for the functions and values of the impacted critical area.

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~~2.3.~~ Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC [16.16.265](#).

D.L. Mitigation Assurance.

- 1. The applicant and his/her representatives shall demonstrate sufficient scientific expertise and capability to implement the mitigation, monitor the site, and make corrections if the project fails to meet projected goals. The ~~technical administrator~~ Director may require the following to ensure that the mitigation is fully functional:
 - i. The applicant shall post a mitigation surety in the amount of ~~125% percent~~ of the estimated cost of the uncompleted actions or the estimated cost of restoring the functions and values of the critical area that are at risk, whichever is greater. The surety shall be based on an itemized cost estimate of the mitigation activity including clearing and grading, plant materials, plant installation, irrigation, weed management, monitoring, and other costs.
 - ii. The surety shall be in the form of an assignment of funds or other means approved by the ~~technical administrator~~ Director.

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- iii. Surety authorized by this section shall remain in effect until the ~~technical administrator~~ Director determines, in writing, that the standards bonded for have been met. Surety shall generally be held by the County for a period of five years to ensure that the required mitigation has been fully implemented and demonstrated to function, and may be held for longer periods when necessary. Surety for construction may be reduced after initial completion in an amount not to exceed the cost of monitoring plus not less than ~~25% percent~~ of the construction cost.
- iv. Depletion, failure, or collection of surety funds shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, or monitoring.
- v. Public development proposals shall be relieved from having to comply with the bonding requirements of this section if public funds have previously been committed for mitigation, maintenance, or monitoring.
- vi. Any failure to satisfy critical area requirements established by law or condition including, but not limited to, the failure to provide a monitoring report within 30 days after it is due or comply with other provisions of an approved mitigation plan shall constitute a default subject to the provisions of WCC [16.16.285](#), and the County may demand payment of any financial guarantees or require other action authorized by the County code or any other law.
- vii. Any funds recovered pursuant to this section shall be used to complete the required mitigation or equivalent.

E.J. Permanent Protection. All mitigation areas shall be protected and managed to prevent degradation and ensure protection of critical area functions and values in perpetuity. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC [16.16.265](#). If additional development is proposed that impacts a mitigation area and those impacts are accounted for under a new, approved mitigation plan, such protection may be removed so long as the final plan meets the requirements of this chapter for all cumulative impacts.

16.16.261 Alternative ~~or innovative~~ Mitigation Plans.

- A. The County shall consider and may approve alternative ~~or innovative~~ mitigation plans for major developments (as defined in Article 9 of this chapter), planned unit developments (pursuant to WCC Chapter [20.85](#)), and/or development agreements (pursuant to RCW [36.70B.170](#) through [36.70B.210](#)).
- B. If approved, said plan shall be used to satisfy the requirements of this chapter and provide relief and/or deviation as appropriate from the specific standards and requirements thereof; provided, that the standards of impact avoidance and minimization shall remain as guiding principles in the application of these provisions and when it is demonstrated that all of the following circumstances exist:
 - 1. The proponent(s) demonstrate the organizational and fiscal capability to carry out the purpose and intent of the plan;

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2. The proponent(s) demonstrate that long-term management, maintenance, and monitoring will be adequately funded and effectively implemented;
 3. There is a clear likelihood for success of the proposed plan based on supporting scientific information or demonstrated experience in implementing similar plans;
 4. In terms of functional value, the proposed mitigation plan results in equal or greater protection and conservation of critical areas functions, services, and values than would be achieved using parcel-by-parcel regulations and/or traditional mitigation approaches;
 5. The plan is consistent with the general purpose and intent of this chapter, the Shoreline Management Program (WCC Title [23](#)), and the comprehensive plan;
 6. The plan shall contain relevant management strategies considered effective and within the scope of this chapter and shall document when, where, and how such strategies substitute for compliance with the specific standards herein; and
 7. The plan shall contain clear and measurable standards for achieving compliance with the purposes of this chapter, a description of how such standards will be monitored and measured over the life of the plan, and a fully funded contingency plan if any element of the plan does not meet standards for compliance.
- C. Alternative mitigation plans shall be reviewed concurrently with the underlying land use permit(s) and decisions to approve or deny such plans shall be made in accordance with the underlying permit process. The plan shall be reviewed by the ~~technical administrator~~ [Director](#) to ensure compliance with the general purpose and intent of this chapter and to ensure accuracy of the data and effectiveness of proposed management strategies. In making this determination the ~~technical administrator~~ [Director](#) shall consult with the State Departments of Fish and Wildlife, Ecology, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts. If the ~~technical administrator~~ [Director](#) finds the plan to be complete, accurate, and consistent with the purposes and intent of this chapter, the designated decision maker shall solicit comment pursuant to the public notice provisions of WCC Chapter [22.05](#) prior to final approval/denial of permission of the plan to substitute for the requirements and standards of this chapter.

16.16.262 Watershed-Based Management Plans.

- A. The County may consider watershed-based management plans sponsored by watershed improvement districts, other special purpose districts, or other government agencies.
- B. If approved, said plan shall be used to satisfy the requirements of this chapter and provide relief and/or deviation as appropriate from the specific standards and requirements thereof; provided, that the standards of impact avoidance and minimization shall remain as guiding principles in the application of these provisions and when it is demonstrated that all of the following circumstances exist:
 1. The proponent(s) demonstrate the organizational and fiscal capability to carry out the purpose and intent of the plan;
 2. The proponent(s) demonstrate that long-term management, maintenance, and monitoring of the watershed will be adequately funded and effectively implemented;

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3. There is a clear likelihood for success of the proposed plan based on supporting scientific information or demonstrated experience in implementing similar plans;
 4. In terms of functional value, the proposed mitigation plan results in equal or greater restoration, protection, and conservation of the impacted critical areas than would be achieved using parcel-by-parcel regulations and/or traditional mitigation approaches;
 5. The plan is consistent with the general purpose and intent of this chapter, the comprehensive plan, and an approved watershed plan prepared pursuant to Chapter [90.82](#) RCW (the State Watershed Management Act) or the plan is prepared under other local or state authority that is consistent with the goals and policies of an applicable and approved watershed plan prepared pursuant to Chapter [90.82](#) RCW;
 6. The plan shall contain relevant management strategies considered effective and within the scope of this chapter and shall document when, where, and how such strategies substitute for compliance with the specific standards herein; and
 7. The plan shall contain clear and measurable standards for achieving compliance with the purposes of this chapter, a description of how such standards will be monitored and measured over the life of the plan, and a fully funded contingency plan if any element of the plan does not meet standards for compliance.
- C. Watershed-based management plans shall be approved by the County Council by ordinance and appended to this chapter. The process for approval shall be as follows:
1. The plan shall be reviewed by the ~~technical administrator~~ [Director](#) to ensure compliance with the purposes of this chapter, the Whatcom County Shoreline Management Program (WCC Title [23](#)), and with the comprehensive plan, and to ensure accuracy of the data and effectiveness of proposed management strategies. In making this determination the ~~technical administrator~~ [Director](#) shall consult with the State Departments of Fish and Wildlife, Ecology, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts.
 2. If the ~~technical administrator~~ [Director](#) finds the plan to be complete, accurate, and consistent with the purposes and intent of this chapter, the designated decision maker shall solicit comments pursuant to the public notice provisions of WCC Chapter [22.05](#) prior to final approval/denial of permission of the plan to substitute for the requirements and standards of this chapter.
 3. The designated decision maker shall not approve watershed-based management plans that conflict with Chapter [90.82](#) RCW.
- 16.16.263 Mitigation Banking.**
- A. [Mitigation Bank Credits](#). The County may approve [the use of mitigation banking credits](#) as a form of compensatory mitigation for wetland and habitat conservation area impacts when the provisions of this chapter require mitigation and when it is clearly demonstrated that the use of a bank will provide equivalent or greater replacement of critical area functions and values when compared to on-site mitigation; provided, that all of the following criteria are met:
1. Banks shall only be used when they provide significant ecological benefits including long-term conservation of critical areas, important species, habitats and/or habitat linkages, and when

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they are consistent with the County comprehensive plan and create a viable alternative to the piecemeal mitigation for individual project impacts to achieve ecosystem-based conservation goals.

2. The bank shall be established in accordance with the Washington State Draft Mitigation Banking Rule, Chapter [173-700](#) WAC or as revised, and Chapter [90.84](#) RCW and the federal mitigation banking guidelines as outlined in the Federal Register, Volume 60, No. 228, November 28, 1995. These guidelines establish the procedural and technical criteria that banks must meet to obtain state and federal certification.
 3. Preference shall be given to mitigation banks that implement restoration actions that have been identified formally by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter [90.82](#) RCW, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.
- B. **Establishing a Mitigation Banks.** [Establishing a mitigation bank](#) shall require a major project permit in accordance with WCC Chapter [20.88](#) and shall be subject to a formal review process including public review as follows:
1. The bank sponsor shall submit a bank prospectus for County review. The prospectus shall identify the conceptual plan for the mitigation bank, including:
 - i. The ecological goals and objectives of the bank;
 - ii. The rationale for site selection, including a site map and legal description of the prospective bank site;
 - iii. A narrative demonstrating compliance with the Whatcom County comprehensive plan, associated development standards and this chapter, shoreline restoration plan, watershed planning documents prepared and adopted pursuant to Chapter [90.82](#) RCW, and/or the salmonid recovery plan;
 - iv. A description of the existing site conditions and expected changes in site conditions as a result of the banking activity, including changes on neighboring lands;
 - v. A conceptual site design;
 - vi. A description of the proposed protective mechanism such as a conservation easement; and
 - vii. Demonstration of adequate financial resources to plan, implement, maintain, and administer the project.
 2. The ~~technical administrator~~ [Director](#) shall review the bank prospectus either by participating in the state's Mitigation Bank Review Team (MBRT) process and/or by hiring independent, third-party expertise to assist in the review.
 3. If the ~~technical administrator~~ [Director](#) determines that the bank prospectus is complete, technically accurate, and consistent with the purpose and intent of this chapter, s/he shall forward the prospectus to the County Council for initial review. If the proposed bank involves conversion of agricultural land to nonagricultural uses, the County Council shall seek a

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recommendation from the agricultural advisory committee as to whether the conversion should be allowed. The committee's recommendation shall be nonbinding. The County Council may require mitigation for the loss of agricultural lands.

4. If the County Council determines, based on the initial review, that the prospectus is valid, it shall issue a notice to proceed to the bank sponsor. Following receipt of the notice to proceed, the bank sponsor may submit application for a major project permit in accordance with WCC Chapter [20.88](#) . The notice to proceed shall not be construed as final approval of the bank proposal, but shall indicate approval to proceed with the development of the mitigation bank instrument, which details all of the legal requirements for the bank.
 5. Upon receipt of a draft mitigation banking instrument from the bank sponsor and major project permit application, the ~~technical administrator~~ [Director](#) shall review the banking instrument and major project permit in consultation with the MBRT and/or other third-party expert. Following review of the mitigation banking instrument and major project permit, the ~~technical administrator~~ [Director](#) shall make a recommendation to certify and approve, conditionally certify and approve, or deny the bank proposal and major project permit in accordance with the provisions of WCC Chapters [20.88](#) and [22.05](#) .
 6. Following receipt of the recommendation, the County Council shall proceed with review in accordance with the provisions outlined in WCC Chapters [20.88](#) and [22.05](#) .
 7. The bank sponsor shall be responsible for the cost of any third-party review.
- C. **Award of Bank Credits.** The award of bank credits for an approved bank may be negotiated based on habitat acreage, habitat quality, and contribution to a regional conservation strategy that has been approved by the County and other appropriate regulatory agency(ies). Credit availability may vary in accordance with agreed-upon performance criteria for the development of the resource value in question. Awarded bank credits, subject to the approval of the County and regulatory agency(ies), may be made transferable. Whether out-of-kind mitigation credit will be allowed at a particular bank will require a fact-specific inquiry on a case-by-case basis for the project creating the impacts.
- D. **Use of Bank Credits.**
1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:
 - a. The bank is certified under state rules;
 - b. The administrator determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
 - c. The proposed use of credits is consistent with the terms and conditions of the certified bank instrument.
 2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the certified bank instrument.
 3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the certified bank instrument. In some cases, the service area

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of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

16.16.264 In-Lieu Fees.

To aid in the implementation of off-site mitigation, the County may develop an in-lieu-fee program. This program shall be developed and approved through a public process and be consistent with federal rules, state policy on 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-fee program sponsor, a governmental or nonprofit natural resource management entity. Credits from an approved in-lieu-fee program may be used when subsections A through F of this section apply:

- A. The approval authority determines that it would provide environmentally appropriate compensation for the proposed impacts.
- B. The mitigation will occur on a site identified using the site selection and prioritization process in the approved in-lieu-fee program instrument.
- C. The proposed use of credits is consistent with the terms and conditions of the approved in-lieu-fee program instrument.
- D. Land acquisition and initial physical and biological improvements of the mitigation site must be completed within five years of the credit sale.
- E. Projects using in-lieu-fee credits shall have debits associated with the proposed impacts calculated by the applicant's qualified wetland scientist using the method consistent with the credit assessment method specified in the approved instrument for the in-lieu-fee program.
- F. Credits from an approved in-lieu-fee program may be used to compensate for impacts located within the service area specified in the approved in-lieu-fee instrument.

16.16.265 Critical Areas Protective Measures.

~~When an impact to critical area or a buffer will occur due to a proposed development, a standard buffer width has been altered, or mitigation is required, one or more of the following protective measures shall be applied:~~

A. General measures (applicable to all projects)

1. ~~Building Setback. The County shall require b~~ Buildings and other structures shall to be set back a minimum distance of 10 feet from the edge of geological hazard setback, a critical area buffer, or from the critical area where no buffer is required-, unless otherwise determined by the Director that a shorter distance will suffice. This setback is to avoid conflicts with tree branches and/or critical root zones of trees that are in the buffer or will be planted in the buffer. The following uses may be are allowed in the building set-back from the buffer if they do not cause damage to the critical root zone of trees in the buffer:
 - a. Landscaping;
 - b. Uncovered decks less than 30 inches in height;
 - c. Building overhangs 18 inches or less;

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- d. ~~Impervious surfaces, including such as driveways, parking lots, roads, and patios;~~
provided, that such surfaces conform to the applicable water quality standards and that construction equipment does not enter or damage the buffer or critical area;
- e. Clearing and grading;
- f. Utilities, including ~~W~~wells, septic systems, and propane tanks with fuel capacities up to 500 gallons.

- 2. Temporary protection measures to identify location of critical areas and buffers such as construction fencing, erosion and sediment control, or similar shall be required during construction of the proposed project.

B. Project Specific Measures. Based on the specifics of the project, the Director will determine which of the following apply:

- 1. **Tree Protection.** If significant trees are identified, such that their drip line extends beyond the reduced buffer edge, the following tree protection requirements must be followed:
 - a. A tree protection area shall be designed to protect each tree or tree stand during site development and construction. Tree protection areas may vary widely in shape, but must extend a minimum of five feet beyond the existing tree canopy area along the outer edge of the dripline of the tree(s), unless otherwise approved by the department.
 - b. Tree protection areas shall be added and clearly labeled on all applicable site development and construction drawings submitted to the department.
 - c. Temporary construction fencing at least thirty inches tall shall be erected around the perimeter of the tree protection areas prior to the initiation of any clearing or grading. The fencing shall be posted with signage clearly identifying the tree protection area. The fencing shall remain in place through site development and construction.
 - d. No clearing, grading, filling or other development activities shall occur within the tree protection area, except where approved in advance by the department and shown on the approved plans for the proposal.
 - e. No vehicles, construction materials, fuel, or other materials shall be placed in tree protection areas. Movement of any vehicles within tree protection areas shall be prohibited.
 - f. No nails, rope, cable, signs, or fencing shall be attached to any tree proposed for retention in the tree protection area.
 - g. The department may approve the use of alternate tree protection techniques if an equal or greater level of protection will be provided.

Commented [CES38]: Added in keeping with similar tree protection measures adopted by Co/C in other parts of the WCC.

- A.2. **Deterrent Devices.** The ~~technical administrator~~ Director, as a condition of permit approval, may require that the outer boundary of a wetland or habitat conservation area and its buffer, a mitigation site, a designated open space, or a conservation easement be identified with signs, markers, and/or fencing to minimize potentially harmful intrusions from adjacent land uses, to alert citizens to a potential public health or safety risk associated with a critical area, or to accomplish other objectives specifically provided for elsewhere in this chapter. The ~~technical administrator~~ Director shall provide specifications on the type, content, and size of the signs

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prior to permit approval. The signs shall be posted near primary access points and approximately every 200 feet along the critical area boundary.

3. **Notice on Title.** The owner of any property containing any critical area or buffer ~~that are not altered by a proposed development for which a development permit is about to be issued~~ shall record a ~~notice document~~ with the County Auditor Real Estate Records, ~~in a format approved provided by the technical administrator~~ Director, and provide a copy of the filed notice to the Department of Planning and Development Services ~~department at the time prior to the project permit is being issued. This requirement may be waived by the Director for certain geologically hazardous areas if s/he finds that the risk is so low as to not warrant notification (e.g., old alluvial deposits).~~ The notice ~~on title~~ shall provide notice of:
- ~~advise of~~ the presence of a critical area(s) or buffer(s) on the property, and that limitations on actions in or affecting the critical area or buffer exist.
 - ~~The notice shall provide that~~ That restrictions on uses within the critical area ~~apply exist~~ until ~~such time as the Technical Administrator~~ Director approves a change ~~in to the~~ restriction(s) and such approval is filed.
- ~~This~~ Such notice on title shall not be required for a development proposal by a public agency or public or private utility within a right-of-way or easement for which they do not have fee-simple title. ~~This requirement shall be waived by the technical administrator for certain geologically hazardous areas if s/he finds that the risk is so low as to not warrant notification (e.g., old alluvial deposits).~~

- 1.4. **Tracts and Easements.** Prior to final approval of any ~~development project~~ permit, the ~~part of the~~ critical areas and required buffers ~~that is located on the site within the review area (as specified in the Review & Reporting Requirements of each Article of this Chapter)~~ shall be protected using ~~one of~~ the following mechanisms:

- ~~For land divisions other than short plats, p~~Placed in a separate tract or tracts owned in common by all lots ~~within a subdivision, short subdivision, or binding site plan or dedicated to a public or private land trust for conservation;~~
- ~~For all other project permit types, Covered by~~Placed in a protective ~~conservation easement; on a form provided or approved by Whatcom County;~~ ~~or~~
- ~~Mitigation areas shall be placed in a native growth protection area (NGPA) easement, on a form provided or approved by Whatcom County;~~
- ~~public or private land trust dedication; or~~
- ~~Preserved through an appropriate permanent protective mechanism that provides the same level of permanent protection as designation of a separate tract or tracts as determined by the county technical administrator or hearing examiner.~~

~~B.A. Building Setback. The county shall require buildings and other structures to be set back a minimum distance of 10 feet from the edge of geological hazard setback, a critical area buffer, or from the critical area where no buffer is required. The following uses are allowed in the building set back:~~

- ~~Landscaping;~~
- ~~Uncovered decks;~~

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~~3.1 Building overhangs 18 inches or less;~~

~~4.1 Impervious surfaces such as driveways, parking lots, roads, and patios, provided, that such surfaces conform to the applicable water quality standards and that construction equipment does not enter or damage the buffer or critical area;~~

~~5.1 Clearing and grading;~~

~~6.1 Wells.~~

C. **Indemnification.** At the ~~technical administrator~~ Director's discretion, when a permit is granted for development or use within a geologic, flood, or other hazard area, the property owner shall sign an indemnification agreement acknowledging hazards posed to the development and absolving the County of all responsibility, to be recorded against the property prior to permit issuance.

~~D.A. Temporary protection measures to identify location of critical areas and buffers such as construction fencing, erosion and sediment control, or similar shall be required during construction of the proposed project.~~

16.16.270 Reasonable Use Exceptions.

A. If the application of this chapter would result in denial of all reasonable and economically viable use of a property, and if such reasonable and economically viable use of the property cannot be obtained by consideration of a variance pursuant to WCC 16.16.273 (Variances), then a landowner may seek a reasonable use exception from the standards of this Chapter. Reasonable use exceptions are intended as a last resort when impacts to critical areas themselves (not just their buffers) cannot be avoided, no plan for mitigation and/or variance can meet the requirements of this Chapter and while allowing the applicant a reasonable and economically viable use of his or her property. The reasonable use exception shall follow the variance and public notification procedures of WCC Title 22 (Land Use and Development).

B. Requests for reasonable use exceptions shall be a Type III project permit application and shall follow the permitting procedures for variances found in (See WCC Title 22, (Land Use & Development).

1. If in the shoreline jurisdiction, Reasonable Use Exceptions shall be processed per the shoreline variance procedures of WCC 22.07.050 (Shoreline Variances);

2. If not in the shoreline jurisdiction, then Reasonable Use Exceptions shall be processed per the variance procedures of WCC 22.05.024 (Variances).

C. The Hearing Examiner shall only grant a reasonable use exception under all of the following conditions:

1. The proposed development is otherwise allowed under Whatcom County code.

2. There is no portion of the site where the provisions of this chapter allow reasonable economic use, including agricultural use or continuation of legal nonconforming uses.

3. The application of this chapter would deny all reasonable and economically viable use of the property so that there is no reasonable and economically viable use with a lesser impact on the critical area than that proposed.

4. There is no feasible alternative to the proposed activities that will provide reasonable economic use with less adverse impact on critical areas and/or buffers. Feasible alternatives may include, but are not limited to, locating the activity on a contiguous parcel that is under the ownership or

Commented [CES40]: Policy change: Staff is proposing that reasonable use exceptions be the last method of altering standards to allow reasonable economic use of constrained property, and that they be decided upon by the Hearing Examiner. However, to counter the additional time and cost of this process, staff is also proposing to use the new category of minor variances that Council recently created. (16.16.273 Variances.) They would be limited to variances for a 25% to 50% reduction of critical area buffers (when mitigated and they meet certain criteria) but would address most of the instances that reasonable use exceptions are currently applied for. We believe that overall, these changes would significantly reduce the number cases having to go to the Hearing Examiner.

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control of the applicant, change in use, reduction in size, change in timing of activity, and/or revision of project design.

5. Activities will be located as far as possible from critical areas and the project employs all reasonable methods to avoid adverse effects on critical area functions and values, including maintaining existing vegetation, topography, and hydrology. Where both critical areas and buffer areas are located on a parcel, buffer areas shall be disturbed in preference to the critical area.
6. The proposed development does not pose a threat to the public health and safety.
7. The proposed activities comply with all state, local and federal laws, such as special flood hazard areas restrictions and on-site wastewater disposal.
8. Measures shall be taken to ensure the proposed activities will not cause degradation of groundwater or surface water quality, or adversely affect drinking water supply.
9. Any proposed modification to a critical area will be evaluated by the Hearing Examiner through consideration of an approved critical area assessment report and habitat management plan and will be the minimum modification necessary to allow reasonable use of the property.
10. The inability of the applicant to derive reasonable use of the property is not the result of actions by the current or previous owners in segregating or dividing the property and/or creating the condition of lack of use after September 30, 2005.

~~The applicant has requested and been denied a variance under the provisions of WCC 16.16.273 (Variances).~~

11. For single-family residences, the maximum impact area shall not exceed 10% of the lot area or 2,500 square feet, whichever is greater; provided that in no instance shall it exceed ~~may be no larger than~~ 4,000 square feet. This impact area shall include the proposed residential structure as well as appurtenant development that ~~are~~ necessarily connected to the use and enjoyment of a single-family residence. ~~These~~Such appurtenant developments includes garages, decks, driveways, parking, on-site septic systems, and all lawn and nonnative landscaping; ~~with the following exceptions: except that w~~On lots outside of the shoreline jurisdiction, ~~w~~When an extended driveway is necessary to access a portion of a development site with the least impact on critical area and/or buffers, those portions of the driveway and drainfields shall be excluded from the 4,000-square-foot maximum impact area; provided, that the access road or driveway meets the standards of WCC 16.16.620(ED) or 16.16.720(ED), as applicable.

~~On lots within the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, approval of those driveway portions shall be sought through a shoreline variance (WCC 23.60.030) and the applicant shall demonstrate that the size and location of the driveway is the minimum relief necessary to access the development site.~~

- A-D. The Hearing Examiner may issue conditions of approval including modifications to the size and placement of structures and facilities to minimize impacts to critical areas and associated buffers. The Hearing Examiner may also specify mitigation requirements that ensure that all impacts are mitigated to the maximum extent feasible using best available science.

Commented [DOE-Req43]: Required Change – This and the subsequent change removes any reference to the SMP as 16.16.270 is not incorporated by reference as part of the SMP at 23.05.050.A.

Commented [P/C44]: P/C moved to keep but slightly modify the original language as shown. Passes 9-0.

Commented [DOE-Req45]: To do: Ryan says to keep a but move b to T-23

Commented [DOE-Req46]: Required Change – This and the previous change removes any reference to the SMP as 16.16.270 is not incorporated by reference as part of the SMP at 23.05.065.A.

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- ~~A. Permit applicants for a property so encumbered by critical areas and/or buffers that application of this chapter, including buffer averaging, buffer reduction, or other mechanism, would deny all reasonable use may seek approval pursuant to the reasonable use standards and procedures provided in this section.~~
- ~~B. Reasonable Use Standards.~~
- ~~1. Nothing in this chapter is intended to preclude all reasonable economic use of property. If the application of this chapter would deny all reasonable economic use of the subject property, including agricultural use, use or development shall be allowed if it is consistent with the zoning code and the purposes of this chapter.~~
 - ~~2. To qualify as a reasonable use, the technical administrator or hearing examiner, as appropriate, must find that the proposal is consistent with all of the following criteria:~~
 - ~~a. There is no portion of the site where the provisions of this chapter allow reasonable economic use, including agricultural use or continuation of legal nonconforming uses;~~
 - ~~b. There is no feasible alternative to the proposed activities that will provide reasonable economic use with less adverse impact on critical areas and/or buffers. Feasible alternatives may include, but are not limited to, locating the activity on a contiguous parcel that has been under the ownership or control of the applicant since September 30, 2005, change in use, reduction in size, change in timing of activity, and/or revision of project design;~~
 - ~~c. Activities will be located as far as possible from critical areas and the project employs all reasonable methods to avoid adverse effects on critical area functions and values, including maintaining existing vegetation, topography, and hydrology. Where both critical areas and buffer areas are located on a parcel, buffer areas shall be disturbed in preference to the critical area;~~
 - ~~d. The proposed activities will not result in adverse effects on endangered or threatened species as listed by the federal government or the state of Washington, or be inconsistent with an adopted recovery plan;~~
 - ~~e. Measures shall be taken to ensure the proposed activities will not cause degradation of groundwater or surface water quality, or adversely affect drinking water supply;~~
 - ~~f. The proposed activities comply with all state, local and federal laws, including those related to erosion and sediment control, pollution control, floodplain restrictions, and on-site wastewater disposal;~~
 - ~~g. The proposed activities will not cause damage to other properties;~~
 - ~~h. The proposed activities will not increase risk to the health or safety of people on or off the site;~~
 - ~~i. The inability to derive reasonable economic use of the property is not the result of segregating or dividing the property and/or creating the condition of lack of use after September 30, 2005;~~
 - ~~j. The project includes mitigation for unavoidable critical area and buffer impacts in accordance with the mitigation requirements of this chapter;~~

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- ~~k.a. For single-family residences, the maximum impact area may be no larger than 4,000 square feet. This impact area shall include the residential structure as well as appurtenant development that are necessarily connected to the use and enjoyment of a single-family residence. These appurtenant developments include garages, decks, driveways, parking, on-site septic systems, and all lawn and nonnative landscaping, with the following exceptions:~~
- ~~i. On lots outside of the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical area and/or buffers, those portions of the driveway shall be excluded from the 4,000 square foot maximum impact area, provided, that the access road meets the standards of WCC 16.16.620(E) or 16.16.720(C), as applicable.~~
 - ~~ii.i. On lots within the shoreline jurisdiction, when an extended driveway is necessary to access a portion of a development site with the least impact on critical areas and/or buffers, approval of those driveway portions shall be sought through a shoreline variance (WCC 23.60.030) and demonstrate that the size and location of the driveway is the minimum relief necessary to access the development site.~~

C. Reasonable Use Procedures:

1. Procedural requirements for reasonable use exception applications shall be as follows:
 - a. Reasonable use exception applications shall be subject to an open record public hearing; except, that reasonable use exception applications for single-family residential building permits, or for other development proposals that would affect critical area buffers, but not the critical areas themselves, shall be processed administratively by the technical administrator.
 - b. Reasonable use exception applications that require an open record hearing shall be processed in accordance with Chapter 22.05 WCC.
 - c. Reasonable use exception applications that are subject to administrative approval by the technical administrator shall be processed in accordance with Chapter 22.05 WCC.
 - d. The hearing examiner or technical administrator shall have the authority to set an expiration date for any or all reasonable use approvals. The development proposal must be completed before the approval expires.
 - e. Any person aggrieved by the granting, denying, or rescinding of a reasonable use exception by the technical administrator or any party of record may appeal the technical administrator's decision pursuant to WCC 16.16.280 or the hearing examiner decision pursuant to Chapter 22.05 WCC.
 - f. Any application for a reasonable use exception or approval which remains inactive for a period of 180 days shall expire and a new application and repayment of fees shall be required to reactivate the proposal; provided, that the technical administrator may grant a single 90-day extension for good cause. Delays such as those caused by public notice requirements, environmental (SEPA) review, litigation directly related to the proposal, or changes in government regulations shall not be considered as part of the inactive period.

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- ~~2. All reasonable use exception applications or other approvals shall be subject to the provisions of this chapter, which are in effect at the time of application.~~
- ~~3. Each application for a reasonable use exception shall be accompanied by a fee as stated in the unified fee schedule.~~
- ~~4. In making reasonable use decisions, the technical administrator shall have the authority to require submittal of technical reports in accordance with WCC 16.16.255 and/or 16.16.260(B).~~

16.16.273 Variances.

- ~~A.~~ Where strict application of and compliance with the dimensional requirements of this chapter renders ~~compliance with these provisions~~ an undue hardship ~~and when no other feasible alternative exists~~, permit applicants may seek a variance for relief.
- ~~B.~~ As described in WCC 22.05.024 (Variances) there are two types of variances pertaining to this Chapter: Minor and Major variances.
- ~~1.~~ Minor variances shall be limited to variances for a 25% to 50% reduction of critical area buffers.
 - ~~2.~~ Major variances include all other variances.
- ~~A-C pursuant to WCC 20.84.100. A v~~ Variance applications shall be processed pursuant to WCC 22.05.024 (Variances), or if in the shoreline jurisdiction WCC 22.07.050 (Shoreline Variances), ~~Chapter 22.05-WCC~~ and meet the criteria therein.

16.16.275 Nonconforming Uses, Structures, and Lots~~uses/buildings~~.

The following provisions shall apply to legally existing uses, ~~and/or buildings and/or~~ structures, or lots that do not meet the specific standards of this chapter:

- ~~A.~~ The lawful use of any legal nonconforming building, structure, land, or premises existing on September 30, 2005, or authorized under a permit or approval issued, or otherwise vested, prior to that date may be continued, subject to this section and the provisions for a nonconforming structure in WCC Chapter 20.83; provided, that agricultural activities shall conform to Article 8 of this chapter (Conservation Program on Agriculture Lands).
- ~~A-B.~~ If a nonagricultural nonconforming use or structure is intentionally abandoned for a period of ~~five years~~ 12 months or more, then any future use ~~of the nonconforming building, land, or premises~~ shall be consistent with the provisions of this chapter.
- ~~B-C.~~ Expansion, alteration, and/or intensification of a nonconforming use is prohibited.
- ~~C-D.~~ Expansion, alteration, and/or intensification of a legal nonconforming building, or structure (including normal maintenance and repair), is allowed unless such use will produce impacts that degrade the critical area, including but not limited to vegetation clearing; additional impervious surfaces; generation of surface water runoff; discharge, or risk of discharge of pollutants; increased noise, light or glare; or increased risk associated with geologically hazardous areas.
- ~~D-E.~~ Nonconforming structures that are completely destroyed by fire, explosion, flood, or other casualty may be restored or replaced in kind if there is no alternative that allows for compliance with the standards of this chapter; provided, that:
- ~~1.~~ Intentional demolition or removal is not a casualty.

Commented [CES47]: To make consistent with T-20

Commented [CES48]: To be consistent with SMP

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~~1-2.~~ The reconstruction process is commenced within ~~five years~~ 18 months of the date of such damage; and

~~2-3.~~ The reconstruction does not expand, enlarge, or otherwise increase the nonconformity, except as provided for in subsection C of this section.

~~E-F.~~ Nonconforming uses, structures, and lots in the shoreline areas-jurisdiction shall be governed by the shoreline management provisions of WCC Title 23.

~~F-G.~~ When a ~~development project~~ permit is sought for a parcel containing a nonconforming ~~building or~~ structure that has been intentionally abandoned for a period of five years or more, the ~~technical administrator~~ Director may require removal of the nonconforming building and restoration of the critical area or buffer in accordance with this chapter as a condition of permit approval.

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16.16.280 Appeals.

Final permit decisions shall be subject to appeal in accordance with the procedures of WCC Chapter 22.05.

16.16.285 Penalties and Enforcement.

- A. Any person who violates any of the provisions of this chapter shall be liable for a civil offense and may be fined a sum not to exceed \$1,000 for each offense. After a notice of violation has been given, each day of site work in conjunction with the notice of violation shall constitute a separate offense.
1. The penalty provided in subsection A of this section shall be assessed and may be imposed by a notice in writing either by certified mail with return receipt requested or by personal service to the person incurring the same. The notice shall include the amount of the penalty imposed and shall describe the violation with reasonable particularity. In appropriate cases, corrective action shall be taken within a specific and reasonable time.
 2. Within 30 business days after the notice is received, the person incurring the penalty may apply in writing to the County for remission or mitigation of such penalty. Upon receipt of the application, the County may remit or mitigate the penalty upon whatever terms the County in its discretion deems proper. The County's final decision on mitigation or revision shall be reviewed by the Hearing Examiner if the aggrieved party files a written appeal therewith of said decision within 10 business days of its issuance.
- B. If work activity has occurred on a site in violation of this chapter, prompt corrective action, restoration, or mitigation of the site will be required when appropriate. If this provision is not complied with, the County may restore or mitigate the site and charge the property owner for the full cost of such an activity. Additionally, any and all permits or approvals issued by the County may be denied for that site for a period of up to six years.
- C. In the event any person violates any of the provisions of this chapter, the County may issue a correction notice to be delivered to the owner or operator, or to be conspicuously posted at the site. In a nonemergency situation, such notice may include notice of the intent to issue a stop work order no less than 10 business days following the receipt of the correction notice, and provide for an administrative pre-deprivation hearing within 10 business days of the notice. In an emergency

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situation where there is a significant threat to public safety or the environment, the County may issue a stop work order. The stop work order shall include, in writing, the right to request an administrative pre-deprivation hearing within 72 hours following receipt of the stop work order. Failure to comply with the order to stop work shall be a gross misdemeanor punishable upon conviction by a minimum fine of \$500.00 up to a maximum fine of \$1,000 or one year in jail, or both. Under no circumstance may the court defer or suspend any portion of the minimum \$500.00 fine for any conviction under this section. Each day or part thereof of noncompliance with said order to stop work shall constitute a separate offense.

- D. The County may suspend or revoke a permit if the applicant violates the conditions or limitations set forth in the permit or exceeds the scope of the work set forth in the permit.
- E. The prosecuting attorney may enforce compliance with this chapter by such injunctive, declaratory, or other actions as deemed necessary to ensure that violations are prevented, ceased, or abated.
- F. Any person who, through an act of commission or omission, procures, aids, or abets in the violation shall be considered to have committed a violation for the purposes of the civil penalty.
- G. After the Fact Permit Fee. After the fact permit application fees shall be double the amount established by the unified fee schedule.

16.16.295 Open Space and Conservation.

The following programs may be employed to ~~achieve the purposes of this chapter and~~ minimize the burden to individual property owners from application of the provisions of this chapter:

- A. Open Space. Any property owner whose property contains a critical area or buffer and who meets the applicable qualifying criteria may apply for open space taxation assessment pursuant to Chapter [84.34](#) RCW.
- B. ~~Native Growth Protection Area (NGPA) Conservation~~-Easement. Any person who owns an identified critical area or its associated buffer may place a ~~conservation-NGPA~~ easement over that portion of the property by naming the County or its qualified designee under RCW [64.04.130](#) as beneficiary of the conservation. This ~~conservation-NGPA~~ easement may be in lieu of separate critical areas tracts that qualify for open space tax assessment described in subsection A of this section. The purpose of the easement shall be to preserve, protect, maintain, and limit use of the affected property. The terms of the ~~conservation-NGPA~~ easement may include prohibitions or restrictions on access and shall be approved by the property owner and the County.
- C. Conservation Futures Fund. The County may consider using the conservation futures property tax fund as authorized by RCW [84.34.230](#) for the acquisition of properties containing significant critical areas and their associated buffers.

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Article 3. Geologically Hazardous Areas

16.16.300 Purpose.

The purpose of this article is to reduce risks to human life and safety and reduce the risk of damage to structures and property from geologic hazards, to allow for natural geologic processes supportive of forming and maintaining fish and wildlife habitat, and to regulate and inform land use and planning decisions. It is recognized that the elimination of all risk from geologic hazards is not feasible to achieve but the purpose of this article is to reduce the risk to acceptable levels.

16.16.310 Geologically Hazardous Areas – Designation, Mapping, and Classification.

- A. Designation. Lands determined to be landslide, seismic, alluvial fan, volcanic, erosion (including channel migration zones), tsunami, seiche and landslide generated waves or mine hazard areas are hereby designated as geologically hazardous areas. Development in these geologic hazard areas can put human life, safety, health, and development at risk, alter geologic processes, adversely affect natural resources, and put the development and surrounding developments and uses at risk.
- B. Mapping. The approximate location and extent of known potential geologically hazardous areas are shown on maps maintained by the County. These maps are useful as a guide for project applicants and/or property owners, and County review of development proposals. However, they do not provide a conclusive or definitive indication of geologically hazardous area presence or extent. Potential geologically hazardous areas may exist that do not appear on the maps, and some potential geologically hazardous areas that appear on the maps may not meet the geologically hazardous areas designation criteria. The County shall update the maps periodically as new information becomes available and may require additional studies during the development review process to supplement and/or confirm the mapping. This chapter does not imply that land outside mapped geologically hazardous areas or uses permitted within such areas will be without risk. This chapter shall not create liability on the part of Whatcom County or any officer or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.
- C. Classification. For purposes of this chapter, geologically hazardous areas shall include all of the following:
 - 1. Landslide Hazard Areas. Landslide hazard areas shall include areas potentially susceptible to landslides based on a combination of geologic, topographic, and hydrologic factors, as specified below. They include any areas susceptible to mass movement due to any combination of bedrock, soil, slope (gradient), slope aspect, slope form (concave, convex, planar), geological structure, surface and subsurface hydrology, or other factors. Landslide hazard areas shall also include areas along which landslide material may be routed or which may be subject to deposition of landslide-delivered material. Potential landslide hazard areas include but are not limited to the following areas:
 - a. Potential Landslide Hazard Areas. Potential landslide hazard areas exhibit one or more of the following characteristics:

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- i. Areas designated as quaternary slumps, earthflows, mudflows, or landslides on maps published by the U.S. Geological Survey, Washington State Department of Natural Resources, or other reputable sources;
- ii. Areas with all three of the following characteristics:
 - (A) Slopes steeper than ~~15% percent~~;
 - (B) Hillside intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - (C) Springs or groundwater seepage;
- iii. Areas that have shown movement and/or are underlain or covered by mass wastage debris;
- iv. Potentially unstable slopes resulting from river or stream erosion or undercutting by wave erosion;
- v. Slopes having gradients steeper than ~~80% percent~~ subject to rockfall during seismic shaking;
- vi. Areas that show past sloughing or calving of sediment or rocks resulting in a steep slope that is poorly vegetated;
- vii. Slopes that are parallel or sub-parallel to planes of weakness (which may include but not be limited to bedding planes, soft clay layers, joint systems, and fault planes) in subsurface materials;
- viii. Areas that show evidence of, or are at risk from, snow avalanches;
- ix. Deep-seated landslide areas characterized by one or more of the following features: scalloped ridge crests at the top of the slope, crescent-shaped depressions, head scarps, side scarps, ponds or sag areas on midslopes, benches and scarps on midslope areas, hummocky ground, or linear fractures in the ground. These features may be evident in aerial images, topographic maps, LiDAR imagery or on the ground;
- x. Areas below unstable slopes that could be impacted by landslide run-out;
- xi. Areas above or adjacent to unstable slopes that could be impacted if the landslide area expands;
- xii. Any area with a slope of ~~40% percent~~ or steeper and with a vertical relief of 10 or more feet except areas composed of competent bedrock or properly engineered slopes designed and approved by a geotechnical engineer licensed in the state of Washington and experienced with the site;
- xiii. Areas within which land use activities could affect the slope stability, including but not limited to areas with subsurface hydrologic flow, groundwater recharge areas and surface water flow;
- xiv. Areas of historical landslide movement including coastal shoreline areas mapped by the Department of Ecology Coastal Zone Atlas or the Department of Natural Resources slope stability mapping as unstable ("U" or Class 3), unstable old slides ("UOS" or Class 4), or unstable recent slides ("URS" or Class 5).

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- b. Active Landslide Hazard Areas. Active landslide hazard areas are areas that exhibit indicators noted in subsection (C)(1)(a) of this section that have been determined through geological assessment to be presently failing or very likely to fail in the near future.
2. Seismic Hazard Areas. Whatcom County is located in a seismically active area that will be subject to ground motion during local and regional earthquakes. Seismic hazards and risk are partially addressed in the International Building Code (IBC) or International Residential Code (IRC). Additional seismic hazard areas for the purpose of this chapter include:
 - a. Areas designated as having a “high” and “moderate to high” risk of liquefaction susceptibility as mapped on the Liquefaction Susceptibility Map by the Washington State Department of Natural Resources.
 - b. Areas that are identified as underlain by liquefiable soils and due to local topography are also subject to or interpreted as being potentially impacted by lateral spreading.
 - c. Areas located within 500 feet of quaternary fault zones with surface offsets.
3. Alluvial Fan Hazard Areas. Any area located at the base of a confined mountain channel and determined to be susceptible to clear water flooding, debris-laden flows and floods, and erosional impacts shall be designated as an alluvial fan hazard area. Watershed hydrology, geology, slope conditions, topography, current and historic land uses, roads and road drainage, valley bottom conditions, and channel conditions upstream of an alluvial fan area are all fundamental to potential hazards and risks on alluvial fans. Alluvial fan hazard areas shall include those areas on alluvial fans potentially impacted by:
 - a. Sediment-laden flows (e.g., debris flows and debris floods);
 - b. Clear water floods;
 - c. Stream channel changes (including channel avulsion, incision, aggradation or lateral erosion and migration);
 - d. Erosion.
4. Volcanic Hazard Areas. Volcanic hazard areas are those areas that have been affected, or have the potential to be affected, by pyroclastic flows, pyroclastic surges, lava flows, or ballistic projectiles, ash and tephra fall, volcanic gases, and volcanic landslides. Also included are areas that have been or have the potential to be affected by Case M, Case I, or Case II lahars, or by debris flows or sediment-laden events originating from the volcano or its associated deposits. In addition, volcanic hazards include secondary effects such as sedimentation and flooding due to the loss of flood conveyance as a result of river channel and flood plain aggradation. The implications of secondary effects may be observed at some distance from the initiating event, and may continue to impact affected drainages over many decades following the initiating event. Secondary effects may significantly alter existing stream and river channels, associated channel migration zones and floodplains due to stream and river bed aggradation and channel avulsion. Volcanic hazards include areas that have not been affected recently, but could be affected by future events. Volcanic hazard areas are classified into the following categories:
 - a. Pyroclastic Flow Hazard Areas. Areas that could be affected by pyroclastic flows, pyroclastic surges, lava flows, and ballistic projectiles in future eruptions. During any single eruption,

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some drainages may be unaffected by any of these phenomena, while other drainages are affected by some or all phenomena. Recurrence interval is not known.

- b. Ash/Tephra Fall Hazard Areas. The location of ash/tephra fall hazards at Mount Baker is predominantly controlled by the prevailing westerly winds observed on the west coast of North America. However, easterly winds do occur in the region and direct ash/tephra fall impacts to Whatcom County population centers are certainly a possibility. Health hazards, power outages, negative impacts to machinery and aircraft, structural damage (e.g., roof collapse) and extensive disruption of daily activities are all potential hazards.
- c. Lateral Blast Hazard Areas. Lateral blast hazards result from low-angle, explosive volcanic eruptions that emanate from the flank of a volcano. The occurrence of a lateral blast is largely unpredictable, both with respect to timing and direction, and does not appear to be a common feature of eruptive activity at Mount Baker or at other volcanoes globally. Extensive destruction is likely within the lateral blast zone, and mitigation is generally considered unachievable.
- d. Volcanic Landslide Hazard Areas. Landslides are common on volcanoes due to their relative height, steepness, and weakness in both the underlying bedrock and the volcanic deposits due to magma movement and chemical weathering. Landslide size is highly variable depending on site conditions and type, but may achieve high velocity and momentum which can carry a landslide across valleys and ridgelines. Given the range of possible landslide types and sizes, specific hazards, risk zones and recurrence interval have not been delineated at Mount Baker. Volcanic landslide hazards are associated with lahar hazards as they pose the potential to generate small- to large-scale cohesive lahars.
- e. Lahar Hazard Areas.
 - a. Case M Lahar Hazard Areas. Areas that could be affected by cohesive lahars that originate as enormous avalanches of weak, chemically-altered rock from the volcano. Case M lahars can occur with or without eruptive activity. A single, post-glacial Case M lahar deposit is known to have traveled down the Middle Fork Nooksack River, and is postulated to have continued down the main stem of the Nooksack River, eventually reaching Bellingham Bay, and to have also flowed north to Canada along the prehistoric path of the Nooksack River. Case M lahars are thus interpreted to pose a threat to the Sumas River drainage due to the potential for bed aggradation and channel avulsion to overtop the low-lying drainage divide that exists between the Nooksack and Sumas River drainages. Case M lahars are considered high-consequence, low-probability events.
 - b. Case I Lahar Hazard Areas. Areas that could be affected by relatively large non-cohesive lahars, which most commonly are caused by the melting of snow and glacier ice by magmatic activity and associated processes, but which can also have a non-eruptive origin. The average recurrence interval for Case I lahars, based on deposits identified along the flanks of Mount Baker, is postulated to be 500 years or greater. However, renewed magmatic activity at Mount Baker would be indicative of greatly increased

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- potential for Case I lahar generation; this may reduce the recurrence interval to approximate that of Case II lahars.
- c. Case II Lahar Hazard Areas. Areas that could be affected by moderately large debris avalanches or small cohesive lahars, or other types of debris flow generated on the east flank of Mount Baker at Sherman Crater or the upper Avalanche Gorge. Case II lahars impact the Baker Lake basin and drainage, and are considered correlative to Case I lahars that may impact the primary drainages on the west and north of Mount Baker, but with increased frequency and comparable volume. The postulated recurrence interval for Case II lahars at Mount Baker is less than 100 years.
5. Erosion Hazard Areas. Erosion hazard areas shall include:
 - a. Channel migration zones, also known as riverine erosion areas, are defined as the areas along a river or stream within which the channel(s) can be reasonably predicted to migrate over time. This is a result of natural and normally occurring geomorphic, hydrological, and related processes when considered with the characteristics of the river or stream and its surroundings, and in consideration of river and stream management plans. Channel migration hazard areas shall include potential channel migration, channel avulsion, bank erosion, and stability of slopes along the river or stream;
 - b. Coastal erosion areas that are subject to shoreline retreat from wind, wave, and tidal erosion.
 6. Tsunami Hazard Areas. Tsunami hazard areas include coastal areas susceptible to flooding, inundation, debris impact, and/or mass wasting as the result of a tsunami generated by seismic events.
 7. Seiche and Landslide Generated Wave Hazard Areas. Seiche and landslide generated wave hazard areas include lake and marine shoreline areas susceptible to flooding, inundation, debris impact, and/or mass wasting as the result of a seiche or landslide generated waves. No known best available science is currently available to characterize potential seiche hazards in Whatcom County.
 8. Mine Hazard Areas. Mine hazard areas shall include those lands in proximity to abandoned mines and associated underground mine workings where mine workings are less than 200 feet below ground level. Mine workings include adits (mine entrances), gangways (haulage tunnels), rooms and chutes (large voids), drifts, pillars (rock left for support) and air shafts. Mine hazards include subsidence, which is the uneven downward movement of the ground surface caused by underground workings caving in; sink holes; contamination of ground and surface water from tailings and underground workings; concentrations of lethal or noxious gases; and underground mine fires.

16.16.320 Geologically Hazardous Areas – ~~Protective Measures~~General standards.

In addition to the applicable general protective measures found in WCC [16.16.265](#), the following requirements shall apply to all activities in geologically hazardous areas:

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- A. **General.** New developments shall be located and/or engineered and constructed to reduce risks to life, health, safety, and buildings, and not increase potential for landslides or erosion that could impact either other properties, public resources, or other critical areas. The County may impose conditions on development activity in a geologically hazardous area as needed to:
 - 1. Protect human life and safety;
 - 2. Minimize the potential for property damage related to seismic events, erosion and/or landslides;
 - 3. Minimize the need for stream or riverbank or coastal bluff stabilization in the future;
 - 4. Reduce public liabilities for damages associated with geologic hazards;
 - 5. Protect slope stability and minimize erosion, seismic, and/or landslide hazard risks;
 - 6. Maintain natural sediment and erosion processes that are integral to the health and sustainability of freshwater and marine ecosystems as well as minimizing impacts to stream, river, and coastal processes such as channel infill, channel migration, sediment transport, or flooding;
- B. **Impact Avoidance.** Impact avoidance measures shall include, but not be limited to, locating the use/development outside of the hazard area, reducing the number, size or scale of buildings and appurtenant features; altering the configuration or layout of the proposed development; implementing special engineering methods for construction, drainage, runoff management, etc.; preserving native vegetation; and other feasible protective measures as determined by an alternatives analysis. For some geologic hazards (except for lahar hazards), impact avoidance may mean no development will be permitted on a property. So long as an applicant complies with WCC [16.16.350\(B\)](#), the County shall not require lahar hazard impact avoidance measures that reduce the number, size, or scale of buildings or appurtenant features; or prevent uses otherwise allowed per the property's zoning district based solely on the property's location within a lahar hazard zone.
- C. **Stormwater Management.** Development shall manage on-site stormwater by developing a properly sized stormwater management system using appropriate stormwater techniques to protect geologically hazardous areas. **Low Impact Development and Low Impact Development Best Management Practices are preferred, unless demonstrated to be infeasible.**
- ~~C.D.~~ **Location of Alterations.** New development shall be directed toward portions of a parcel or parcels under contiguous ownership that are not subject to, or at risk from, geological hazards (except for lahar hazards) and/or are outside any setback or buffer established by this chapter.
- ~~D.~~ **Critical Facilities Prohibited.** Critical facilities as defined in WCC [16.16.900](#) shall not be constructed or located in geologically hazardous areas if there is a feasible alternative location outside geologically hazardous areas that would serve the intended service population. If allowed, the critical facility shall be designed and operated to minimize the risk and danger to public health and safety to the maximum extent practicable.
- E. **Review by Qualified Professional.** A geologist or other qualified professional, licensed in the state of Washington, shall review development proposals that occur in potentially geologically hazardous areas to determine the potential risk. If development takes place within an identified geologically

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hazardous area requiring design or structural elements to minimize the hazard, the mitigation shall be designed by a qualified professional licensed in the state of Washington with expertise in mitigation of geological hazards.

- F. **Life of Structure.** Proposed development shall be sited far enough from erosion and landslide hazard areas to ensure at least 100 years of useful life for the proposed structure(s) or infrastructure. The location ~~should~~ shall be determined by a geologist or other qualified professional licensed in the state of Washington and ~~should~~ be based on site-specific evaluation of the landslide and/or erosion hazard.

16.16.322 Geologically Hazardous Areas – General Use or Modification.

- A. **Remodels and Additions.** Any proposed remodel or addition to an existing permitted or nonconforming structure that exceeds a valuation of greater than 50% ~~percent~~ of the fair market value shall be required to ensure that the entire structure is improved in accordance with all Article 3 requirements.

B. **Critical Facilities Prohibited.** Critical facilities as defined in WCC 16.16.900 shall not be constructed or located in geologically hazardous areas if there is a feasible alternative location outside geologically hazardous areas that would serve the intended service population. If allowed, the critical facility shall be designed and operated to minimize the risk and danger to public health and safety to the maximum extent practicable.

~~B-C~~ **Agricultural Activities.** Agricultural activities (uses and structures) may be allowed within geologically hazardous areas without a conservation farm plan as long as the activity does not increase the potential for landslides, channel migration, or alluvial fan hazards on or off the site; except, that a conservation farm plan shall be required for agricultural activities within landslide hazard areas and associated landslide hazard area setbacks (WCC 16.16.325(C)).

~~C-D~~ **Land Subdivision.** Land that is located wholly within a landslide hazard area, riverine or coastal erosion hazard area, alluvial fan hazard area, lahar hazard area, or mine hazard area or its buffer may not be subdivided to create buildable parcels entirely within the hazardous area. Land that is located partially within a hazard area or its setback may be divided; provided, that each resulting lot has sufficient buildable area outside of the hazardous area with provision for drainage, erosion control and related features that will not adversely affect the hazard area or its setback.

16.16.325 Landslide Hazard Areas – Use and Modification Standards.

- A. ~~General Standards-Allowed Uses and Modifications.~~ The following uses and modifications activities may be allowed in active landslide hazard areas when all reasonable measures have been taken to minimize risks and other adverse effects associated with landslide hazards, and when the amount and degree of the alteration are limited to the minimum needed to accomplish the project purpose:
1. **Reasonable Use.** Developments that will not increase the threat to the health or safety of people and will not increase potential for landslides on or off the site and meet the reasonable use standards as set forth in WCC 16.16.270.
 2. **Utilities.** Utility lines and pipes that are above ground, properly anchored and/or designed so that they will continue to function in the event of a slope failure or movement of the underlying

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materials and will not increase the risk or consequences of static or seismic slope instability or result in a risk of mass wasting. Such utility lines may be permitted only when the applicant demonstrates that no other feasible alternative is available to serve the affected population.

3. Trails. Trails shall be meet all of the following:

- a. The applicant demonstrates that no other feasible alternative exists.
- b. The trail engineering design and construction methods minimize the need for major repair or reconstruction.
- c. Specific construction standards to minimize impacts, including drainage and drainage maintenance plans, may be required.
- d. Exceptions or deviations from technical standards for width or other dimensional measurements may require a variance.

4. Development Access. Access driveways and roads shall meet all of the following:

- a. The applicant demonstrates that no other feasible alternative exists, including through the provisions of Chapter 8.24 RCW.
- b. A qualified professional designs the driveway or access road to minimize the need for major repair or reconstruction. The design shall provide a greater level of protection than road or driveway standards outside of geological hazardous areas.
- c. Specific construction standards to minimize impacts, including drainage and drainage maintenance plans, may be required.
- d. Exceptions or deviations from technical standards for width or other dimensional measurements may require a variance.

~~3. Access roads and trails that are engineered and built to standards that minimize the need for major repair or reconstruction beyond that which would be required in nonhazard areas. Access roads and trails may be permitted only if the applicant demonstrates that no other feasible alternative exists, including through the provisions of Chapter 8.24 RCW. If such access through critical areas is granted, exceptions or deviations from technical standards for width or other dimensions and specific construction standards to minimize impacts, including drainage and drainage maintenance plans, may be required.~~

~~4.5. Stormwater. Stormwater conveyance through a properly designed stormwater pipe when no other storm-water conveyance alternative is availablefeasible. The pipe shall be located above ground and be properly anchored and/or designed so that it will continue to function in the event of a slope failure or movement of the underlying materials and will not increase the risk or consequences of static or seismic slope instability or result in increased risk of mass wasting activity.~~

B. **Landslide Hazard Management Zone Standards.** Alteration may be allowed within 300 feet of an active landslide hazard area when the ~~technical administrator~~ Director determines that the following standards are met:

1. The proposed alteration includes all appropriate measures to avoid, eliminate, reduce, or otherwise mitigate risks to health and safety.

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2. The proposed alteration is located outside of a landslide hazard area and any required setback, as set forth in WCC [16.16.325\(C\)](#).
 3. The development will not decrease slope stability on adjacent properties. The development shall not increase the risk or frequency of landslide occurrences.
 4. The removal and disturbance of vegetation, clearing, or grading shall be limited to the area of the approved development.
 5. The development is outside of the area of potential upslope or downslope surface movement or potential deposition in the event of a slope failure.
 6. The development will not increase or concentrate surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions.
 7. The proposed alterations will not adversely impact other critical areas.
 8. Structures and improvements shall minimize alterations to the slope contour, and shall be designed to minimize impervious lot coverage unless such alterations or impervious surfaces are needed to maintain slope stability.
- C. **Landslide Hazard Area Setbacks.** ~~In addition to the applicable general protective measures found in WCC [16.16.265](#), the technical administrator shall have the authority to require~~ Setbacks shall be required from the edges of any identified landslide hazard area in accordance with the following:
1. The size of the setback shall be based on the findings of a qualified professional and shall minimize the risk of property damage, death, or injury resulting from landslides both on and off the property; provided, that the Director may require a minimum setback in accordance with International Building Codes adopted by Whatcom County.
 2. The setback shall include consideration of the hydrologic contribution area to the potential landslide area and/or the area subject to the potential for mass movement, and the downhill area subject to potential deposition.
 3. The setback shall include consideration of vegetation on the potential landslide area and in areas above and below the potential landslide area. ~~The technical administrator~~ Director shall have the authority to require vegetation or other measures to protect or improve slope stability and shall have the authority to require a mitigation plan developed in accordance with WCC [16.16.260](#), and a conservation easement in accordance with WCC [16.16.265\(C\)](#) to ensure appropriate vegetation improvements are installed, maintained, and preserved.
 4. Developments on sites that are directly adjacent to a wetland, marine shoreline, or other habitat conservation area as defined in Article 7 of this chapter may be subject to additional buffer requirements and standards as set forth in the subsequent articles of this chapter.
- 16.16.340 Seismic Hazard Areas – Use and Modification Standards.**
Development may be allowed in seismic hazard areas when all of the following apply:
- A. Structures in seismic hazard areas shall conform to applicable analysis and design criteria of the International Building Code.
 - B. Public roads, bridges, utilities, and trails shall be allowed when there are no feasible alternative locations, and geotechnical analysis and design are provided that minimize potential damage to roadway, bridge, and utility structures, and facilities will not be susceptible to damage from

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seismically induced ground deformation. Mitigation measures shall be designed in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual or other appropriate document.

16.16.345 Alluvial Fan Hazard Areas – Use and Modification Standards.

The following uses and modifications may be allowed in alluvial fan hazard areas when all reasonable measures have been taken to minimize risks and other adverse effects associated with alluvial fan hazards, when the amount and degree of alteration are limited to the minimum needed to accomplish the project purpose, and when the applicable general protective measures found in WCC 16.16.265 have been applied:

- A. Reasonable Use. Developments that will minimize the threat to the health or safety of people and will not increase the risks of alluvial fan hazards on or off the site and meet the reasonable use standards as set forth in WCC 16.16.270.
- B. Infrastructure. Roads, utilities, bridges, and other infrastructure that are located and designed to minimize adverse impacts on critical areas and avoid the need for channel dredging or diking or other maintenance activities that have the potential to substantially degrade river and stream functions.
- C. Permanent residential structures and commercial developments shall be allowed in alluvial fan hazard areas only if the fan has undergone a County-approved study to assess potential hazards, determine risks, and identify mitigation measures and is deemed suitable for development. The ~~technical administrator~~ Director shall make this determination based on a detailed assessment by a qualified professional that identifies the risks associated with a 500-year return period debris flow or the maximum credible event that could impact the alluvial fan.
- D. Accessory structures not involving human occupancy shall be allowed as long as the structure will not increase the alluvial fan hazards on or off the site.

16.16.350 Volcanic Hazard Areas – Use and Modification Standards.

- A. Ash/Tephra Fall and Lateral Blast Hazard Areas. Development may be allowed in these areas; provided, that all reasonable measures have been taken to minimize risks and adverse effects, and when the amount and degree of the alteration is limited to the minimum needed to accomplish the project purpose, and when the applicable general protective measures found in WCC 16.16.265 and the standards of WCC 16.16.320 have been applied.
- B. Lahar Hazard Zones.
 1. Subject to WCC 16.16.320(A) through (C) and WCC 16.16.265, the following uses are allowed in any volcanic hazard areas:
 - a. Single-family residences and duplexes.
 - b. Accessory structures not involving human occupancy.
 - c. Sewer collection facilities, communication facilities, and other utilities that are not likely to cause harm to people or the environment if inundated by a lahar. Underground utilities such as pipelines shall be allowed if demonstrated through a geotechnical analysis to be sufficiently buried as to not likely be damaged by scour caused by a lahar.

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- d. Agricultural and forestry uses not including human habitation.
- 2. Subject to WCC [16.16.320](#)(A) through (C) and WCC [16.16.265](#) (except subsection D when located wholly within a lahar hazard zone), the following uses are allowed in volcanic hazard areas subject to the submittal and approval of a volcanic hazard emergency management plan meeting the requirements of subsection (B)(3) of this section; however, this requirement may be waived for properties located in an area with an estimated lahar arrival time of more than 60 minutes. The County will maintain travel time projection maps to estimate lahar approach times.
 - a. Expansion of legal nonconforming uses meeting criteria of WCC [16.16.275](#) and WCC Chapter [20.83](#).
 - b. All other uses allowed per the property's zoning district.
- 3. Where required by subsection (B)(2) of this section, a volcanic hazard emergency management plan shall be submitted for approval and meet the following requirements:
 - a. Is consistent with and integrated into a community emergency plan maintained by the sheriff's office of emergency management.
 - b. Includes an emergency evacuation plan.
 - c. Is required to be updated every five years.
 - d. Evacuation route maps must be posted on the premises.

16.16.355 Erosion Hazard Areas – [Use and Modification Standards](#).

- A. General Standards. For coastal, riverine, and stream erosion hazard areas, the following activities shall be allowed when the applicable general protective measures found in WCC [16.16.265](#) have been applied and as follows:
 - 1. Developments that minimize the threat to the health or safety of people and will not increase the risks of erosion hazards on or off the site and meet the reasonable use or variance standards as set forth in WCC [16.16.270](#) or [16.16.273](#), respectively.
 - 2. Discharge of surface water drainage into a coastal or riverine erosion hazard area, provided there are no other alternatives for discharge, and the drainage is collected upland of the top of the active erosion hazard area and directed downhill in an appropriately designed stormwater pipe that includes an energy dissipating device at the base of the hazard area. The pipe shall be located on the surface of the ground and be properly anchored so that it will continue to function under erosion conditions and not create or contribute to adverse effects on downslope critical areas. The number of pipes ~~should~~ shall be minimized along the slope frontage.
 - 3. Stormwater retention and detention systems, such as dry wells and infiltration systems using buried pipe or French drains, provided they are located outside the identified channel migration zone, designed by a qualified professional and shall not affect the stability of the site.
 - 4. Utility lines when no feasible conveyance alternative is available. The line shall be located above ground and properly anchored and/or designed so that it will not preclude or interfere with channel migration and will continue to function under erosion conditions; provided, that utility

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- lines may be located within channel migration zones if they are buried below the scour depth for the entire width of the Channel Migration Zone (CMZ).
5. Public roads, bridges, and trails when no feasible alternative alignment is available. Facilities shall be designed such that the roadway prism and/or bridge structure will not be susceptible to damage from active erosion.
 6. Access to private development sites may be allowed to provide access to portions of the site that are not critical areas if there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter [8.24](#) RCW. Exceptions or deviations from technical standards for width or other dimensions and specific construction standards to minimize impacts may be specified.
 7. ~~Shoreline stabilization may be permitted when consistent with the shoreline stabilization regulations found in 23.40.190 (Shoreline Stabilization), regardless of whether the proposed project is within shoreline jurisdiction or not. Stream bank stabilization and shoreline protection may be permitted subject to all of the following standards:~~
 - ~~a. Shoreline protection measures located within coastal or riverine erosion areas shall use soft armoring techniques (bioengineering erosion control measures as identified by the State Department of Ecology and the Department of Fish and Wildlife guidance) unless the applicant provides a geotechnical analysis demonstrating that bioengineering approaches will not adequately protect the property.~~
 - ~~b. The armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply from feeder bluffs.~~
 - ~~c. The armoring will not adversely affect critical areas including habitat conservation areas or mitigation will be provided to compensate for adverse effects where avoidance is not feasible.~~
 - ~~d. The proposal shall comply with WCC Title [23](#).~~
 - ~~e. Hard bank armoring is discouraged and may occur only when the property contains an existing permanent structure(s) that is in danger from shoreline erosion caused by wave action or riverine processes and not erosion caused by upland conditions, such as the alteration of natural vegetation or drainage, and the armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply.~~
 - ~~f. The erosion is not being caused by upland conditions, such as the removal of vegetation or human alteration of existing drainage.~~
 - ~~g. Nonstructural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.~~
 8. New residences shall be located outside of channel migration hazard areas or marine shoreline retreat areas. Accessory structures not involving human occupancy with a footprint equal to or less than 2,500 square feet shall be allowed; provided, that they are located at the outer edge of the migration zone as defined by this chapter; and provided, that the ~~technical administrator~~

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~~Director~~ may allow larger accessory structures where mitigating measures are feasible and provided for by the applicant.

9. New public flood protection measures and expansion of existing ones may be permitted, subject to WCC Title [17](#), Article 4 of this chapter, and a state hydraulic project approval; provided, that bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection.
- B. Erosion Hazard Area Setbacks. In addition to the applicable general protective measures found in WCC [16.16.265](#), the ~~technical administrator~~ **Director** shall have the authority to require setbacks from the edges of any coastal, stream, or riverine hazard erosion area in accordance with the following:
 1. The size of the setback shall be based on the findings of a qualified professional and shall protect critical areas and processes and minimize the risk of property damage, death or injury resulting from erosion over the life of the development, typically identified as 100 years; provided, that the Director may require a minimum setback in accordance with International Building Codes adopted by Whatcom County.
 2. The setback shall include the uphill area subject to potential erosion, the downhill area subject to potential deposition, and any area subject to landslide as a result of erosion.
 3. The setback shall include woody vegetation adequate to stabilize the soil and prevent soil movement. If the designated setback area lacks adequate woody vegetation, the ~~technical administrator~~ **Director** shall have the authority to require vegetation enhancement or other measures to improve slope stability.
 4. Developments on sites that are directly adjacent to a wetland or marine shoreline or other habitat conservation area as defined in Article 7 of this chapter may be subject to additional setback requirements and standards as set forth in the subsequent articles of this chapter.

16.16.365 Tsunami Hazard Areas – Use and Modification Standards.

The standards of WCC [16.16.320](#) shall apply. For development within tsunami hazard areas the proposed development shall be designed to provide protection from the tsunami hazard that meets the projected hazard on the Department of Natural Resources Tsunami Inundation Maps. For other low-lying coastal areas not included on the inundation maps, development shall be designed to provide protection for debris impact and an inundation as determined by current Department of Natural Resource modeling, unless other measures can be shown to provide equal or greater protection.

16.16.367 Seiche and Landslide Generated Wave Hazard Areas – Use and Modification Standards.

Standards for seiche and landslide generated wave hazards will only apply if the hazard area is mapped by the United States Geologic Survey or the Department of Natural Resources, Division of Geology and Earth Resources or other credible source approved by Whatcom County. If a mapped hazard is present, the standards of WCC [16.16.320](#) and [16.16.350](#) shall apply. For residential development within mapped seiche and landslide generated wave hazard areas, the proposed development ~~should~~ shall be designed to withstand the mapped hazard. If the risk of the event is less than 0.1% ~~percent~~ on a yearly basis, development standards may not be required, but notice on property title will be required.

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16.16.370 Mine Hazard Areas – Use and Modification Standards.

The standards of WCC [16.16.320](#) and [16.16.350](#) shall apply.

16.16.375 Geologically Hazardous Areas – Review and Reporting Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration is, or may be, located within an active or potential geologically hazardous area, the ~~technical administrator~~ Director shall have the authority to require the submittal of a geological assessment report.
- B. A geologic hazards assessment report for a geologically hazardous area shall include a field investigation and contain an assessment of whether or not the type of potential geologic hazard identified is present or not present and if development of the site will increase the potential for landslides or erosion on or off the site. Geology hazard assessment reports shall be prepared, stamped, and signed by a qualified professional. The report should:
1. Be appropriate for the scale and scope of the project;
 2. Include a discussion of all geologically hazardous areas on the site and any geologically hazardous areas off site potentially impacted by or which could impact the proposed project. If the affected area extends beyond the subject property, the geology hazard assessment may utilize existing data sources pertaining to that area;
 3. Clearly state that the proposed project will not decrease slope stability or pose an unreasonable threat to persons or property either on or off site and provide a rationale as to those conclusions based on geologic conditions and interpretations specific to the project;
 4. Provide 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, and other adequate information to determine compliance with the requirements of this article;
 5. Provide 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.
- ~~5-6.~~ Geotechnical reports shall conform to accepted technical standards and ~~G~~generally follow the guidelines set forth in the Washington State Department of Licensing Guidelines for Preparing Engineering Geology Reports in Washington (2006). In some cases, such as when it is determined that no landslide or erosion risk is present, a full report may not be necessary to determine compliance with this article, and in those cases a stamped letter or abbreviated report may be provided;
- ~~6-7.~~ If a landslide or erosion hazard is identified, provide minimum setback recommendations for avoiding the landslide or erosion hazard, recommendations on stormwater management and vegetation management and plantings, other recommendations for site development so that the frequency or magnitude of landsliding or erosion on or off the site is not altered, and recommendations are consistent with this article;

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- ~~7.8.~~ For projects in seismic hazard areas, the report shall also include a detailed engineering evaluation of expected ground displacements, amplified seismic shaking, or other liquefaction and/or dynamic settlement effects and proposed mitigation measures to ensure an acceptable level of risk for the proposed structure type or other development facilities such as access roads and utilities;
- ~~8.9.~~ For projects in mine hazard areas, the report shall also include a description of historical data and remnant mine conditions, if available, dates of operation, years of abandonment, strength of overlying rock strata, and other information needed to assess stability of the site together with analysis of surface displacement or foundation stress from collapse of workings.
- C. A geological assessment for a specific site may be valid for a period of up to five years when the proposed land use activity and site conditions affecting the site are unchanged. However, if any surface and subsurface conditions associated with the site change during that five-year period, the applicant may be required to submit an amendment to the geological assessment.

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Article 4. Frequently Flooded Areas

16.16.400 Purpose.

The purposes of this article are to:

- A. Reduce the risk to life and safety, public facilities, and public and private property that results from floods.
- B. Avoid or minimize impacts to fish and wildlife habitats that occur within frequently flooded areas.
- C. Protect and maintain the beneficial ecological functions and values of frequently flooded areas, including providing the necessary flow regime to form and maintain a full range of functional and accessible salmonid habitats both within and outside of frequently flooded areas.
- D. To ensure compliance with FEMA National Flood Insurance Program (NFIP) protection standards for critical habitats of species listed under the Endangered Species Act.
- E. In conjunction with the provisions of WCC Title [17](#), establish review procedures that provide an integrated approach to managing floodplain development and maintaining the capacity of the floodplain or floodway to convey and store flood waters.

16.16.410 ~~Frequently Flooded Areas – Designation and Mapping~~—~~Frequently Flooded Areas~~.

- A. Frequently flooded areas are areas located along major rivers, streams, and coastal areas where the depth, velocity, intensity and frequency of flood water during major events present a risk to human life and property. Areas susceptible to these types of hazards are hereby designated as frequently flooded areas and subject to the provisions of this article.
- ~~B. The approximate location and extent of frequently flooded areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as new hazard areas are identified and as new information becomes available. This article does not imply that land outside mapped frequently flooded areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Whatcom County, any officer or employee thereof, or the Federal Insurance and Mitigation Administration (FIMA), for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.~~

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~~C.~~^{B.} Frequently flooded areas shall include, but not be limited to:

- 1. ~~Areas subject to a one percent recurrence interval of flood water inundation or a 100-year base flood~~ ~~Special flood hazard areas~~ as mapped on the current effective Federal Emergency Management Agency's Flood Insurance Rate Maps (FIRM). This includes coastal high hazard areas as defined by this chapter and as identified and designated on the FIRM maps as Zone VE or V; provided, that tsunami hazard areas are designated as geologically hazardous areas and subject to the provisions of Article 3 of this chapter.
- 2. Other flood hazard areas identified by the County public works department based on review of historical data, high water marks, photographs of past flooding, or similar information from federal, state, county, or other valid sources when base flood elevation data from the Federal Insurance and Mitigation Administration has not been provided or is not accurate.

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16.16.420 Frequently Flooded Areas – General Standards.

- A. All development shall conform to the provisions of WCC Title [17](#), Flood Damage Prevention, and the applicable provisions of this chapter.
- B. Development within frequently flooded areas shall be allowed only when it is consistent with all of the following:
 - 1. FEMA's National Flood Insurance Program (NFIP), including the protection standards for critical habitats for listed species;
 - 2. The mitigation sequence in WCC [16.16.260](#);
 - 3. Article 7, Habitat Conservation Areas, of this chapter;
 - 4. The applicable general protective measures found in WCC [16.16.265](#).
- C. The ~~technical administrator~~ [Director](#) shall have the authority to require a habitat assessment and, if necessary, a mitigation plan prepared by a qualified professional, in accordance with the FEMA Regional Guidance for the Puget Sound Basin, and mitigate for adverse impacts to the ecological functions of frequently flooded areas; provided, that such mitigation shall be consistent and compatible with the goal of protecting health and safety and minimizing risks to property.

16.16.430 Frequently Flooded Areas – Review and Report Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development is or may be located within a frequently flooded area, the County public works department's river and flood division and/or the ~~technical administrator~~ [Director](#) shall have the authority to require a critical area assessment report.
- B. The public works department shall have primary responsibility for reviewing and approving proposed developments for consistency with WCC Title [17](#). The ~~technical administrator~~ [Director](#) shall review development proposals for consistency with the standards provided in this chapter. Either may place conditions for approval and/or require mitigation in accordance with this chapter.
- C. In addition to the requirements of WCC [16.16.255](#), critical areas assessment reports for frequently flooded areas shall:
 - 1. Identify any federally listed species and associated habitats, and demonstrate that no harm will occur to such species or habitats as a result of development (inclusive of mitigation) within frequently flooded areas.
 - 2. Address adverse impacts to ecological functions and processes, including riparian vegetation. Positive impacts may also be discussed.
 - 3. Include mitigation for adverse effects on frequently flooded areas' ecological functions, where applicable.
- D. The ~~technical administrator~~ [Director](#) shall have the authority to modify the requirements of subsection C of this section when s/he determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development.
- E. The ~~technical administrator~~ [Director](#) shall have the authority to require additional information to that required in subsection C of this section that discloses and describes the effects of proposed development on frequently flooded area functions, including, but not limited to, impacts on: storage

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and conveyance of flood water; channel migration; peak flows and flow velocities; redd scour and displacement of rearing juvenile fish; sediment quality in streams; shear stress and bank erosion; water quality; wildlife habitat; fish access; and nutrients cycling or other hyporheic functions that link surface and groundwater systems.

- F. Critical areas assessment report requirements may be waived for single-family developments and structures accessory to agricultural uses when the ~~technical administrator~~ Director and the Public Works department determine that the development does not meet the FEMA requirements for a habitat assessment in FEMA Regional Guidance for the Puget Sound Basin ~~no adverse impacts or risks to life, property, or ecological functions will occur.~~

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Article 5. Critical Aquifer Recharge Areas

16.16.500 Purpose.

The purposes of this article are to:

- A. Preserve, protect, and conserve Whatcom County's groundwater resources and their functions and values for current and future generations by protecting critical aquifer recharge areas from contamination.
- B. Prevent adverse impacts on groundwater quantity by regulating development activities that could deplete aquifer storage, reduce groundwater levels, and/or diminish infiltration and replenishment of groundwater.
- C. Prioritize the management, protection, and conservation of groundwater recharge areas as sources of potable water supply.
- D. Establish review procedures for development activities that have the potential to adversely affect critical aquifer recharge areas.

16.16.510 ~~Critical Aquifer Recharge Areas – Designation, Classification and Mapping~~ – ~~Critical Aquifer Recharge Areas~~.

- A. Critical aquifer recharge areas play a crucial role in supplying potable water (as defined by WAC [365-190-030\(2\)](#)). These recharge areas have geologic conditions that allow high infiltration rates, which contribute significantly to the replenishment of groundwater. These conditions also create a high potential for groundwater contamination. These areas are hereby designated as critical areas and subject to the provisions of this chapter.
- B. The approximate location and extent of critical aquifer recharge areas are shown on the County's critical area maps. These maps are to be used as a guide and do not provide a definitive critical area designation. The County shall update the maps as recharge areas are identified and as new information becomes available.
- C. Critical aquifer recharge areas shall be designated and classified as follows:
 1. Low, Moderate, and High Susceptibility Aquifer Recharge Areas. Aquifer recharge areas susceptible to degradation or depletion because of hydrogeologic characteristics are those areas meeting the criteria established by the State Department of Ecology (Guidance Document for the Establishment of Critical Aquifer Recharge Area Ordinances, July 2000, Publication No. 97-30, Version 4.0).
 2. Wellhead Protection Areas. The area defined by the boundaries of the 10-year time of groundwater travel, in accordance with WAC [246-290-135](#). For purposes of this chapter, all wellhead protection areas shall be designated as highly susceptible critical aquifer recharge areas.
- D. If special groundwater management areas or susceptible groundwater management areas are established in Whatcom County in accordance with WAC [173-200-090](#) or [173-100-010](#), respectively, then these areas shall be incorporated into the highly susceptible aquifer designation.

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16.16.520 Critical Aquifer Recharge Areas – General Standards.

In addition to the applicable general protective measures found in WCC [16.16.265](#), all development in a critical aquifer recharge area shall meet the following standards:

- A. The proposed development will not cause contaminants to enter the aquifer and will not significantly affect the recharging of the aquifer in an adverse manner.
- B. The proposed development must comply with the water source protection requirements and recommendations of the Federal Environmental Protection Agency, State Department of Health, and the Whatcom County health department.
- C. The proposed development must be designed and constructed in accordance with the County stormwater management requirements or other applicable stormwater management standards (Whatcom County Development Standards Chapter 2, WCC Title [20](#)).

16.16.525 Critical Aquifer Recharge Areas – Use and Modification ~~Activity Subject to Critical Areas~~ Review.

The following development activities, when proposed in moderate and high susceptibility critical aquifer recharge areas, have the potential to adversely affect groundwater quality and/or quantity and shall require submittal of a critical areas assessment report as defined in WCC [16.16.255](#) and [16.16.535](#):

- A. Any development with an on-site domestic septic system at a gross density greater than one system per residence per acre.
- B. All storage tanks and storage facilities for hazardous substances and/or hazardous wastes; provided, that:
 1. The tanks must comply with Department of Ecology regulations contained in Chapters [173-360](#) and [173-303](#) WAC as well as International Building Code requirements;
 2. All new underground tanks and facilities shall be designed and constructed so as to prevent releases due to corrosion or structural failure for the operational life of the tank, or have a secondary containment system to prevent the release of any stored substances;
 3. All new aboveground storage tanks and facilities shall be designed and constructed so as to prevent the release of a hazardous substance to the ground, groundwaters, or surface waters by having primary and secondary containment.
- C. Vehicle repair, servicing and salvaging facilities; provided, that the facility must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur. Dry wells shall not be allowed on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the State Department of Ecology prior to commencement of the proposed activity.
- D. Use of reclaimed wastewater must be in accordance with adopted water or sewer comprehensive plans that have been approved by the State Departments of Ecology and Health and the Whatcom County council per Chapter [57.16](#) RCW; provided, that:
 1. Surface spreading must meet the groundwater recharge criteria given in RCW [90.46.010](#)(10) and [90.46.080](#).

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2. Direct injection must be in accordance with the standards developed by authority of RCW [90.46.042](#).
- E. Any other development activity that the ~~technical administrator~~ Director determines is likely to have a significant adverse impact on groundwater quality or quantity, or on the recharge of the aquifer. The determination must be made based on credible scientific information.
- F. Metals and hard rock mining and new sand and gravel mining subject to the provisions of the County's current mineral resource lands (MRL) review procedures in WCC Chapter [20.73](#); provided, that for new MRLs such activities shall be prohibited within the 10-year travel time zone of wellhead protection areas.

16.16.530 Critical Aquifer Recharge Areas – Prohibited Uses.

The following developments and uses are prohibited in critical aquifer recharge areas:

- A. New landfills, including hazardous or dangerous waste, municipal solid waste, special waste, wood waste of more than 2,000 cubic yards, and inert and demolition waste landfills.
- B. Underground Injection Wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells.
- C. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade).
- D. Facilities that store, process, or dispose of chemicals containing perchloroethylene (PCE) or methyl tertiary butyl ether (MTBE).
- E. Facilities that store, process, or dispose of radioactive substances.
- F. Other activities that the ~~technical administrator~~ Director determines would significantly degrade groundwater quality and/or reduce the recharge to aquifers currently, or potentially used as a potable water source, or that may serve as a significant source of base flow to a regulated stream. The determination must be made based on credible scientific information.

16.16.535 Critical Aquifer Recharge Areas – Review and Report Requirements.

- A. When County critical area maps or other sources of credible information indicate that the proposed development activities listed in WCC [16.16.525](#) occur within a critical aquifer recharge area, the ~~technical administrator~~ Director shall have the authority to require a critical area assessment report and to regulate developments accordingly. Critical areas assessment reports for aquifer recharge areas shall meet the requirements of WCC [16.16.255](#) and this section. Assessment reports shall include the following site- and proposal-related information unless the ~~technical administrator~~ Director determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development:
 1. Available information regarding geologic and hydrogeologic characteristics of the site, including the surface location of all critical aquifer recharge areas located on site or immediately adjacent to the site, and permeability of the unsaturated zone;
 2. Groundwater depth, flow direction and gradient based on available information;
 3. Currently available data on wells and springs within 1,300 feet of the project area;

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4. The presence and approximate location of other critical areas, including surface waters, within 1,300 feet of the project area based on available data and maps;
 5. Existing and available historic water quality data for the area to be affected by the proposed activity;
 6. Proposed best management practices;
 7. The effects of the proposed project on the groundwater quality and quantity, including:
 - a. Potential effects on stream flow, wetlands and/or other resources, and on ecosystem processes;
 - b. Predictive evaluation of groundwater withdrawal effects on nearby wells and surface water features; and
 - c. Predictive evaluation of contaminant transport based on potential releases to groundwater; and
 8. A spill plan that identifies equipment and/or structures that could fail, resulting in an impact. Spill plans shall include provisions for emergency response provisions as well as regular inspection, repair, and replacement of structures and equipment that could fail.
- B. If the applicant can demonstrate through a valid hydrogeological assessment that geologic and soil conditions underlying their property do not meet the criteria for low, moderate, or high susceptibility, the property shall not be considered a critical aquifer recharge area.

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Article 5.5. Areas within the Rural Residential District of Lummi Island

16.16.540 Areas within the Rural Residential District of Lummi Island.

16.16.541 Exempt Wells.

Wells drilled as a replacement of an existing well are exempt from this article as long as the withdrawal rate is not increased by more than ~~20% percent~~ of the existing well. If baseline withdrawal rate information is not available, this must be established by a licensed well driller prior to well replacement.

16.16.542 Minimum Well Spacing for all New Wells.

Wells shall have a minimum of 200 feet distance between a new well and an existing operating well.

16.16.543 Requirements for Public Water System Wells, Non-Group B Two Party Wells, and Non-Domestic Wells.

In addition to the minimum well spacing, the following measures are required for public water system wells, non-Group B two party wells, and nondomestic wells. (Includes “public water system” wells and non-Group B two party wells as defined under Whatcom County drinking water regulations and nondomestic use wells pumping greater than 250 gpd. “Public water system” is defined under WCC Chapter [24.11](#) as any water system providing piped water for consumption, excluding a system serving only one single-family residence and any system with four or fewer connections serving only residences on the same farm. A “non-Group B two party well” is defined in WCC Chapter [24.11](#) as a water system using one well to serve two single-family residences for which the director of health has waived all public water system requirements.)

A. Chloride Monitoring and Testing.

1. Monitoring. Well owners shall collect and have water samples analyzed for chloride concentration twice annually, in April and August, and submitted to the Whatcom County health department.
2. Chloride Determinations for New Wells or Increased Pumping of Existing Wells. Applications for new wells, applications to convert an existing private well into a two party well, any application to expand the number of connections of a public water system, and nondomestic use wells proposing a greater than ~~20% percent~~ increase in groundwater withdrawals in an existing well require a minimum 24-hour-duration pumping test at ~~100% percent~~ of the proposed average daily demand, at the end of which a water sample will be collected for analysis of chloride concentration. Subdivisions using individual wells are required to test wells simultaneously or, alternatively, have a licensed hydrogeologist evaluate well interference and water quality changes. Subdivision wells shall remain accessible for future testing in the event of subdivision expansion.
3. Restrictions on New Wells or Increased Pumping of Existing Wells. New wells cannot be permitted, existing private wells cannot be converted to two party wells, existing public water systems cannot expand beyond their existing number of approved connections, and nondomestic wells cannot increase pumping rates greater than ~~20% percent~~ if chloride

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concentrations measured at the end of the test specified in subsection (A)(2) of this section are greater than 100 mg/L. For systems expanding ~~20% percent~~ or less within one year, the highest chloride determination within the past year in subsection (A)(1) of this section cannot be greater than 100 mg/L.

4. Limit on Water Use by Existing Wells. Any increase (0 to ~~20% percent~~) in water use will not be permitted if either semiannual analysis in the previous 12-month period indicates greater than 100 mg/L chloride concentration. If the semi-annual chloride determinations have not been submitted as required, then the pump testing requirement of subsection (A)(2) of this section shall apply.
 5. Prior to 10 days before the pumping test, all property owners within 1,000 feet of the well location shall be notified by first class mail informing them of the test and providing contact information of the person responsible for the testing.
- B. Arsenic Monitoring and Testing in the Unconsolidated Aquifer.
1. The following monitoring and testing is required unless the well is determined not to be located in the unconsolidated sandstone aquifer. A Washington State licensed hydrogeologist must make the determination in a submitted report.
 2. Arsenic Determinations for New Wells or Increased Pumping of Existing Wells. Applications for new wells, applications to convert an existing private well into a two party well, any application to expand the number of connections of a public water system, and nondomestic use wells proposing a greater than ~~20% percent~~ increase in groundwater withdrawals in an existing well require a minimum 24-hour-duration pumping test at ~~100% percent~~ of the proposed average daily demand, at the end of which a water sample will be collected for analysis of arsenic concentration.
 3. Restrictions on New Wells or Increased Pumping of Existing Wells. New wells cannot be permitted, existing private wells cannot be converted to two party wells, existing public water systems cannot expand beyond their existing number of approved connections, and nondomestic wells cannot increase pumping rates greater than ~~20% percent~~ if arsenic concentrations measured at the end of the test specified in subsection (B)(2) of this section are greater than 10 µg/L.
 4. Limit on Water Use by Existing Wells. Any increase (0 to ~~20% percent~~) in water use will not be permitted if the most recent arsenic determination indicated greater than 10 µg/L arsenic concentration. If no arsenic concentration has been determined in the past three years, the pumping test requirement in subsection (B)(2) of this section shall apply.
 5. Prior to 10 days before the pumping test, all property owners within 1,000 feet of the well location shall be notified by first class mail informing them of the test and providing contact information of the person responsible for the testing.

16.16.544 Administrative Waiver.

Administrative waivers may be granted to any section of these requirements by petition to the administering agency. Waiver request must demonstrate that the project is consistent with the intent of

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these requirements; no health hazard would result from this action; and must be stamped by a licensed Washington State hydrogeologist.

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Article 6. Wetlands

16.16.600 Purpose.

The purposes of this article are to:

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

16.16.610 Wetlands – Designation, Rating, and Mapping.

- A. Wetlands shall be delineated in accordance with the requirements of RCW [36.70A.175](#). Unless otherwise provided for in this chapter, all areas within the county determined to be wetlands in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual, 1987 Edition, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0), 2010 or as revised, are hereby designated critical areas and are subject to the provisions of this article.
- B. The approximate location and extent of wetlands are shown on the County's critical area maps. ~~However, this information has come from multiple sources over many years' time and is not precise, only general. Thus, these maps are to be used as a guide and do not provide a definitive critical area designation; a property-specific assessment is necessary for that to determine the wetland boundary. The County shall update the maps as new wetlands are identified and as new information becomes available.~~
- C. Wetlands shall be rated based on categories that reflect the functions and values of each wetland. Wetland categories shall be based on the criteria provided in the Washington State Wetland Rating System for Western Washington, revised 2014, and as amended thereafter, as determined using the appropriate rating forms and associated figures contained in that publication. These categories are generally defined as follows:
 - 1. Category I. Category I wetlands are: (a) relatively undisturbed estuarine wetlands larger than one acre; (b) wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR; (c) bogs; (d) mature and old-growth forested wetlands larger than one acre; (e) wetlands in coastal lagoons; (f) interdunal wetlands that score eight or nine habitat points and are larger than one acre; and (g) wetlands that perform many functions well (scoring 23 points or more). These wetlands: (a) represent unique or rare wetland types; (b) are more sensitive to disturbance than most wetlands; (c) are relatively undisturbed

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- and contain ecological attributes that are impossible to replace within a human lifetime; or (d) provide a high level of functions.
2. Category II. Category II wetlands are: (a) estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre; (b) interdunal wetlands larger than one acre or those found in a mosaic of wetlands; or (c) wetlands with a moderately high level of functions (scoring between 20 and 22 points).
 3. Category III. Category III wetlands are: (a) wetlands with a moderate level of functions (scoring between 16 and 19 points); (b) can often be adequately replaced with a well-planned mitigation project; and (c) interdunal wetlands between 0.1 and one acre. Wetlands scoring between 16 and 19 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
 4. Category IV. Category IV wetlands have the lowest levels of functions (scoring fewer than 16 points) and are often heavily disturbed. These are wetlands that we should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.

16.16.612 Exceptions to Regulation.

- A. All wetlands shall be regulated regardless of size; provided, that the following wetlands may be exempt from the requirement to avoid impacts (WCC 16.16.225 General Regulations), and they may be filled if the impacts are fully mitigated based on the remaining actions in WCC 16.16.260 (General Mitigation Requirements). In order to verify the following conditions, a critical area report for wetlands meeting the requirements in WCC 16.16.255 (Critical Areas Assessment Reports) must be submitted. hydrologically isolated Category IV wetlands less than 1,000 square feet in size may be adversely impacted when all of the following criteria are met:
1. 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 56 or more points for habitat function based on the 2014 update to the Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication #14-06-029, or as revised and approved by Ecology);
 - e. Do not contain a Priority Habitat or a Priority Area for a Priority Species identified by the Washington Department of Fish and Wildlife, do not contain federally listed species or their critical habitat, or species of local importance identified in WCC 16.16.710 (Habitat Conservation Areas – Designation, Mapping, and Classification).
 2. 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.

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1. ~~The wetland does not provide significant suitable breeding habitat for native amphibian species. Suitable breeding habitat may be indicated by adequate and stable seasonal inundation, presence of thin-stemmed emergent vegetation, and clean water;~~
2. ~~The wetland does not have unique characteristics that would be difficult to replace through standard compensatory mitigation practices;~~
3. ~~The wetland is not located within a habitat conservation area, as defined in WCC 16.16.710, or buffer;~~
4. ~~The wetland is not located within a floodplain and/or not associated with a shoreline of the state as defined by the County's shoreline master program (WCC Title 23);~~
5. ~~The wetland is not part of a mosaic of wetlands and uplands. This criterion shall be determined using the guidance provided in Ecology's Wetland Rating System for Western Washington (Publication No. 14-06-029); and~~
6. ~~The wetland is not identified as locally significant by a local watershed plan prepared pursuant to Chapter 400-12 WAC.~~

16.16.620 Wetlands – Use and Modification ~~general standards.~~

The following uses and modifications activities may be permitted in wetlands and/or wetland buffers as specified when, pursuant to WCC 16.16.255, 16.16.260, and 16.16.630, all reasonable measures have been taken to avoid adverse effects on wetland functions and values as documented through an alternatives analysis, the amount and degree of alteration are limited to the minimum needed to accomplish the project purpose, and ~~compensatory~~ mitigation is provided for all adverse impacts to wetlands and their buffers that cannot be avoided:

A. Reasonable Use. Developments that meet the reasonable use exception or variance standards as set forth in WCC 16.16.270 and 16.16.273, respectively.

B. Utilities.

1. **Utility lines** in Category II, III, and IV wetlands and their buffers and/or Category I wetland buffers when no feasible conveyance alternative is available shall be designed and constructed to minimize physical, hydrologic, and ecological impacts to the wetland, and meet all of the following:
 - a. The utility line is located as far from the wetland edge and/or buffer as possible and in a manner that minimizes disturbance of soils and vegetation.
 - b. Clearing, grading, and excavation activities are limited to the minimum necessary to install the utility line and the area is restored following utility installation.
 - c. Buried utility lines shall be constructed in a manner that prevents adverse impacts to surface and subsurface drainage. This may include regrading to the approximate original contour or the use of trench plugs or other devices as needed to maintain hydrology.
 - d. Best management practices are used in maintaining said utility corridors such that maintenance activities do not expand the corridor further into the critical area.
 - d-e. The least impactful construction or installation method is used as demonstrated through an alternatives analysis.

Commented [CES56]: Updated, using language from DOE Wetland Guidance for CAO Updates, Western Washington Version, 2016

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2. **On-site sewage disposal systems** (OSS) may be permitted in wetland buffers when accessory to an approved ~~single-family residence residential structure~~ when:
 - a. ~~When it~~ is not feasible to connect to a public sanitary sewer system; and
 - b. It is located as far as possible from the wetland; and
 - c. ~~When it~~ is operated and maintained in accordance with WCC 24.05.160; provided, that adverse effects on water quality are avoided.

B-C. Public Roads or Bridges. New or expanded public roads or bridges in Category II, III, and IV wetlands and their buffers and/or Category I wetland buffers when no feasible alternative alignment is available and the road or bridge is designed and constructed to minimize physical, hydrologic, and ecological impacts to the wetland, including placement on elevated structures as an alternative to fill, where feasible.

D. Private Access. Access to private development sites may be permitted to cross Category II, III, or IV wetlands or their buffers, provided the access meets the following:

1. For direct wetland fill, there are no feasible alternative alignments. ~~Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW.~~
2. Design and construction methods there are no feasible alternative alignments and measures are taken to maintain preconstruction hydrologic connectivity across the access road or driveway. ~~Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW.~~
3. The access is designed to cause the least impact to the wetland and/or its buffer (which may require the applicant to apply for an Exception or deviations from the technical Development Standards) for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.
- 1-4. Access is not achievable through the administrative provisions of WCC 16.16.640 (Wetland Buffer Modification).

D-E. Agricultural Uses as follows:

1. Construction of an appurtenant structure that is associated with an primary agricultural use; or the reconstruction, remodeling, or maintenance of such structures in wetland buffers, subject to all of the following specific criteria:
 1. The structure is located within an existing lot of record and is an ongoing agricultural use.
 2. There is no other feasible location with less impact to critical areas.
 3. Clearing and grading activity and impervious surfaces are limited to the minimum necessary to accommodate the proposed structure and, where possible, surfaces shall be made of pervious materials.
2. Ongoing agricultural activities, subject to the following:
 - a. The activities are conducted in accordance with all applicable provisions of this chapter and WCC Title 17; or
 - b. The agricultural activity is in compliance with the Conservation Program on Agricultural Lands (CPAL) as described in Article 8 of this chapter.

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E-F. Domestic wells serving single-family developments (including plats, short plats, and individual single-family residences) and necessary appurtenances, including a pump and appropriately sized pump house, but not including a storage tank, in wetland buffers when all of the following conditions are met:

1. There is no viable alternative to the well site outside of the buffer and the well is located as far back from the wetland edge as is feasible;
2. The well is more than 75 feet deep; and
3. Any impacts to the wetland and buffer from staging equipment and the well-drilling process are mitigated.

F-G. Stormwater Management Facilities.

1. Stormwater management facilities, limited to detention/retention/treatment ponds, media filtration facilities, and lagoons or infiltration basins, or bioretention cells (engineered or rain gardens) may be permitted within the outer ~~50% percent~~ of a Category II, III or IV wetland buffer; provided, that:
 - a. Construction of the stormwater facility does not displace or impact a forested buffer;
 - b. The width of the buffer between the stormwater facility and the wetland edge is not less than the low intensity land use buffer standards in WCC [16.16.630](#);
 - c. There is no other feasible location for the stormwater facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects on the buffer and adjacent critical areas;
 - d. The stormwater facility is designed to mimic and resemble natural wetlands and meets applicable county or state stormwater management standards and the discharge water meets state water quality standards; and
 - e. Low impact development approaches have been implemented to the maximum extent feasible per the Department of Ecology stormwater manual.
2. Surface water or stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted within a Category III or IV wetland buffer on a case-by-case basis when the ~~technical administrator~~ **Director** determines that all of the following are met:
 - a. Due to topographic or other physical constraints, there are no feasible alternative locations for these facilities in the outer buffer area or outside the buffer.
 - b. The discharge is located as far from the wetland edge and/or buffer as possible and in a manner that minimizes disturbance of soils and vegetation.
 - c. The discharge outlet is designed to prevent erosion and promote infiltration.
 - d. The dispersion outfall is within the outer ~~25% percent~~ of the buffer, [unless a closer location is demonstrated to be the only feasible location. Alternative locations shall be the maximum distance from the wetland to alleviate the site constraint.](#)
3. Phosphorus-reducing BMP structures approved and installed through the homeowners' improvement program (or as may be renamed) within the Lake Whatcom watershed to treat

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runoff from existing development may be permitted within the outer ~~50% percent~~ of a Category II, III or IV wetland buffer.

~~G.H.~~ **Recreation.** Passive recreation facilities that are part of a non-motorized trail system or environmental education program, including walkways, wildlife viewing structures, or public education trails; provided, that all of the following criteria are met:

- ~~1.~~ There is no other feasible alternative route with less impact on the critical area.
- ~~2.~~ The trail minimizes erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as wood recruitment and natural wildlife movement patterns.
- ~~3.~~ Private trails shall not exceed ~~six-four~~ feet in width, and public trails shall not exceed 10 feet in width, though some portions may be wider to meet the requirements of the Americans with Disabilities Act.
- ~~2-4.~~ They shall be made of pervious material or elevated where feasible.
- ~~3-5.~~ They shall be designed to avoid removal of significant trees.
- ~~6.~~ Trails may include limited viewing platforms that shall not exceed eight feet in width and shall be made of pervious materials where feasible.
- ~~4-7.~~ When located in the buffer, they should be located in the outer ~~25% percent~~ of the buffer; except, that public trails may be permitted closer to the wetland when necessary to provide wetland educational opportunities or for public health and safety; provided, that when closer than the outer 25%, the trail width is the minimum necessary for the trail class.
- ~~5-8.~~ They shall be constructed and maintained in a manner that minimizes disturbance of the buffer and associated critical areas.
- ~~6-9.~~ If they must cross a wetland, they shall be elevated, constructed to minimize supports, and be the minimum size necessary to accommodate the level of service.

~~H.~~ Single family developments may be permitted to encroach into wetland buffers subject to the technical administrator's approval; provided, that all of the criteria in WCC 16.16.270(B) (Reasonable Use) are met.

16.16.630 Wetland Buffers ~~widths~~.

To protect the integrity, functions, and values of wetlands, the technical administrator Director shall have the authority to require buffers from the edges of all wetlands, including reestablished or created wetlands, (in addition to the building setback required by WCC ~~16.16.265(DA)(1)~~) in accordance with the following:

~~A.~~ Wetland buffers shall be established to protect the integrity, functions and values of the wetland.

Wetland buffers shall be measured horizontally from a perpendicular line established by the wetland boundary based on the base buffer width identified in Table 1.

~~A-B.~~ Wetland buffers shall not include areas that are functionally and effectively disconnected from the wetland by an existing, legally established road or other that are functionally and effectively disconnected from the wetland by an existing, legally established road or other substantially developed surface.

Commented [CES58]: Added per Scoping Document item #13c to give County Parks flexibility to increase public awareness and stewardship of critical areas.

Commented [CES59]: Not needed. 16.16.270 would apply to any type of development and is covered by (A)

Commented [P/C60]: P/C moved to retain existing text. Passed 4-3

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~~B-C.~~ The wetland buffer standards required by this Article presume the existence of a dense, multi-storied native vegetation community in the buffer adequate to protect the wetland functions and values. When a buffer lacks adequate vegetation, the ~~technical administrator~~ Director may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

~~C-D.~~ The standard wetland buffer shall be based on a combination wetland category, habitat function score (from the wetland rating form), and land use intensity. The intensity of the land use shall be determined in accordance with the definitions found in Article 9 of this chapter unless the ~~technical administrator~~ Director determines that a lesser level of impact is appropriate based on information provided by the applicant demonstrating that the proposed land use will have a lesser impact on the wetland than that contemplated under the buffer standard otherwise appropriate for the land use, as specified in WCC 16.16.640.

~~D-E.~~ Standard buffer widths are shown in Table 1. However, for Category I or II wetlands with “special characteristics” as determined and defined through the Washington State Department of Ecology (2014) Wetland Rating System (including estuarine, coastal lagoons, wetlands of high conservation value, bogs, forested, and interdunal wetlands), only buffers in the highest habitat score (8 to 9) group are applied.

Table 1. Standard Wetland Buffer Widths

Wetland Category	Habitat Function Score	Land Use Intensity*		
		High Buffer Width (feet)	Moderate Buffer Width (feet)	Low Buffer Width (feet)
Category I	8 – 9	300	225	150
	5-6 – 7	150	110	75
	<3 – 5	100	75	50
Category II	8 – 9	275 <u>300</u>	150 <u>225</u>	100 <u>150</u>
	5-6 – 7	150	110	75
	3 – 5	80 <u>100</u>	60 <u>75</u>	50
Category III	8 – 9	150 <u>300</u>	110 <u>225</u>	75 <u>150</u>
	5-6 – 7	150	100 <u>110</u>	60 <u>75</u>
	3 – 5	80	60	50 <u>40</u>
Category IV	8-3 – <5 <u>9</u>	50	40	25

* Definitions for high, moderate, and low intensity land use are provided in Article 9 of this chapter.

16.16.640 Wetland Buffer Modification.

Buffer widths may be increased, decreased, or averaged in accordance with the following provisions, which provide flexible approaches to maximize both ecological functions and allowed uses. All mitigation proposed shall be consistent with State and this Chapter.

Commented [CES61]: Amending wetland buffer widths and habitat function score thresholds to make them consistent with the Department of Ecology’s most recent 2018 guidance. We have been notified by the DOE that though the Critical Areas Ordinance was only updated a few years ago, our wetland buffer widths and habitat function score thresholds do not meet their current guidance, and that they would be reviewing our SMP update to ensure we updated these during this process (linked because our CAO is a part of our SMP, see above). While many of the buffer widths would increase, the change in the habitat function score thresholds would place fewer wetlands in the higher buffer categories. Staff has worked with the local wetland consultants over the past year to analyze what differences this would make for most property owners, and based on data received from them it appears to be a wash for the most common types of wetlands.

Commented [CES62]: Combined 16.16.640, 650, & 660 into better language from Skagit County

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A. Buffer Width Increasing. The Director may require the standard buffer width to be increased by the distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas for one of the following:

1. To protect the function and value of that wetland including, but not limited to, compensating for a poorly vegetated buffer or a buffer that has a steep slope (greater than 30% percent); or
2. To prevent windthrow damage; or
3. To protect wetlands or other critical areas from landslides, erosion or other hazards;
4. To maintain viable populations of existing species listed by the Federal or State government as endangered, threatened or sensitive; or
5. When a Category I or II wetland is located within 300 feet of:
 - a. Another Category I, II or III wetland; or
 - b. A fish and wildlife HCA; or
 - c. A Type S or F stream; or
 - d. A high impact land use that is likely to have additional impacts.

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect wetland and habitat functions. If the wetland contains variations in sensitivity, increasing the buffer widths will only be done where necessary to preserve the structure, function and value of the wetland.

B. Buffer Width Averaging. Buffer width averaging allows limited reductions of buffer width in specified locations while requiring increases in others. The widths of buffers may be averaged if this will improve the protection of wetland functions.

1. Averaging of required buffer widths will be allowed only if the applicant demonstrates that all of the following criteria are met:
 - a. The area of the buffer proposed for averaging has not been reduced pursuant to subsection (C). Buffer averaging is not allowed if the buffer has been reduced.
 - b. Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available; and
 - c. Averaging width will not adversely impact the wetland functions and values; and
 - d. The wetland has significant differences in characteristics that affect its habitat functions; and
 - e. The total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging; and
 - f. The buffer is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion; and
 - g. The buffer width of a Category I, II, or III wetland shall not be reduced below 75% of the standard buffer width.
2. Averaging of required buffer widths will be allowed for the following when the dimensional standards of subsection (B)(1) are met:

Commented [CES63]: Moved from 16.16.660

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- a. To protect a natural feature (e.g., a stand of trees or snags) that otherwise would fall outside of the standard buffer.
 - b. To provide connections with adjacent habitats or to address those situations where pre-existing development has reduced a buffer area to a width less than the required standard.
- ~~In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.~~

C. Buffer Width Reduction. The Director shall have the authority to reduce the standard buffer widths identified in WCC 16.16.630 (Wetland Buffers) as follows:

1. The buffers of moderate and low impact land use projects may be reduced when all of the following apply:
 - a. The area of the buffer proposed for reduction has not been averaged pursuant to subsection (B). Buffer reduction is not allowed if the buffer has been averaged.
 - b. The applicant demonstrates buffer averaging is not feasible.
 - c. The buffer shall not be reduced to less than 75% of the required buffer.
 - d. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in WCC 16.16.260 (General Mitigation Requirements).
 - e. To minimize impacts and provide equivalent functions and values as required by this section, the Director may require any or all of the following:
 - i. The use of alternative on-site wastewater systems in order to minimize site clearing, where appropriate;
 - ii. Using low impact development (LID) and LID best management practices where appropriate;
 - ~~In order to offset habitat loss from buffer reduction, retaining existing native vegetation on other portions of the site equal to no more than the area impacted.~~
 - f. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;
 - g. All buffer reduction impacts are mitigated and result in equal or greater protection of the wetland functions and values. This includes enhancement of existing degraded buffer area and provide mitigation for the disturbed buffer area.
2. High impact land use projects may apply moderate land use intensity buffers when:
 - a. For wetlands that score 3-5 habitat points, all applicable impact reduction measures from the following list are implemented (from Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Appendix 8C (as updated in 2018):
 - i. Directing lights away from the wetland and buffer.
 - ii. Locating activities that generate noise away from the wetland and buffer.
 - iii. Routing all new, untreated runoff away from wetland while ensuring wetland is not dewatered.
 - iv. Establishing covenants limiting use of pesticides within 150 feet of wetland.
 - v. Applying integrated pest management.

Commented [CES64]: Based on public comments, staff has amended this section to better meet DOE Guidance.

Commented [CES65]: Section amended to be consistent with DOE guidance (Wetlands in Washington State, Volume 2, Appendix 8C, updated 2018 and Guide for Developing CAOs, 2016)

Commented [CES66]: Based on public comments, staff has amended this section to better meet DOE Guidance.

Commented [P/C67]: P/C motion to strike. Carries 7-1-1

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- vi. Retrofitting stormwater detention and treatment for roads and existing adjacent development.
 - vii. Preventing channelized flow from lawns that directly enters the buffer.
 - viii. Infiltrating or treating, detaining, and dispersing into the buffer new runoff from impervious surfaces and new lawns.
 - ix. Posting signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the County.
 - x. Using privacy fencing.
 - xi. Planting with dense native vegetation appropriate for the County to delineate buffer edge and to discourage disturbance.
 - xii. Using low impact development (LID) and LID best management practices where appropriate.
 - xiii. Establishing a permanent conservation easement or tract to protect the wetland and the associated buffer.
 - xiv. Using best management practices to control dust.
- b. For wetlands that score 6 points or more for habitat function:
- i. All applicable impact reduction measures of subsection (C)(2)(a) are implemented, and;
 - ii. A relatively undisturbed, vegetated corridor at least 100 feet wide between the wetland and any other Priority Habitats is protected pursuant to WCC 16.16.260(I) (General Mitigation Requirements – Permanent Protection). If no option for providing such a corridor is available, then only subsection (i) applies.
3. In all circumstances when the buffer between the area of reduction and the wetland is degraded, this degraded portion of the buffer shall include replanting with native vegetation in order to achieve a dense vegetative community.
4. Any person who alters or proposes to alter regulated wetlands shall reestablish, create, rehabilitate, or enhance (or a combination thereof) areas of wetland in order to compensate for wetland losses at the ratios described in mitigation ratios for projects in Western Washington in Table 8C-11 (as updated in 2014) in Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Section 8C.2.3.
- D. **Buffer Width Variance.** Standard buffer widths may be reduced by more than 25% through a variance pursuant to WCC 16.16.273 (Variances); provided, that buffer averaging beyond that allowed in subsection (B) is prohibited.

Commented [CES68]: Moved from the old 16.16.640

Commented [P/C69]: P/C Motion to approve. Carries 9-0

16.16.640 Wetland buffer reduction.

~~The technical administrator shall have the authority to reduce the standard buffer widths identified in WCC 16.16.630; provided, that the general standards for avoidance and minimization per WCC 16.16.260(A)(1)(a) and (b) shall apply; and provided further, that all of the following apply:~~

- ~~A. The buffer reduction shall not adversely affect the functions and values of the adjacent wetlands;~~
- ~~B. The buffer of a Category I, II, or III wetland shall not be reduced to less than 75 percent of the required buffer or 50 feet, whichever is greater;~~

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- ~~C. The buffer of a Category IV wetland shall not be reduced to less than 50 percent of the required buffer, or 25 feet, whichever is greater;~~
- ~~D. The applicant implements all reasonable measures to minimize the adverse effects of adjacent land uses and ensure no net loss of buffer functions and values. Such measures may include, but are not limited to, the following:
 - ~~1. Direct lights away from the wetland and buffer.~~
 - ~~2.1 Locate activities that generate noise away from the wetland and buffer.~~
 - ~~3.1 Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered.~~
 - ~~4.1 Establish covenants limiting use of pesticides within 150 feet of wetland.~~
 - ~~5.1 Apply integrated pest management.~~
 - ~~6.1 Retrofit stormwater detention and treatment for roads and existing adjacent development.~~
 - ~~7.1 Prevent channelized flow from lawns that directly enters the buffer.~~
 - ~~8.1 Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.~~
 - ~~9.1 Post signs at the outer edge of the critical area or buffer to clearly indicate the location of the critical area according to the direction of the County.~~
 - ~~10.1. Use privacy fencing.~~
 - ~~11.1. Plant with dense native vegetation appropriate for the County to delineate buffer edge and to discourage disturbance.~~
 - ~~12.1. Use low impact development (LID) and LID best management practices where appropriate.~~
 - ~~13.1. Establish a permanent conservation easement or tract to protect the wetland and the associated buffer.~~
 - ~~14.1. Use best management practices to control dust.~~~~

16.16.650 Wetland buffer averaging.

The technical administrator shall have the authority to average wetland buffer widths on a case-by-case basis; provided, that the general standards for avoidance and minimization per WCC 16.16.260(A)(1)(a) and (b) shall apply, and when all of the following criteria are met:

- ~~A. The buffer averaging does not reduce the functions or values of the wetland;~~
- ~~B. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer, and all increases in buffer dimension for averaging must be generally parallel to the wetland boundary to avoid creating buffer “panhandles” unless it constitutes a wildlife corridor;~~
- ~~C. The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation;~~
- ~~D. The minimum buffer width of a Category I, II, or III wetland shall not be less than 75 percent of the widths established under WCC 16.16.630, or 50 feet, whichever is greater;~~
- ~~E. The minimum buffer width of a Category IV wetland shall not be less than 50 percent of the widths established under WCC 16.16.630, or 25 feet, whichever is greater; and~~

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~~F. The buffer has not been reduced in accordance with WCC 16.16.640. Buffer averaging is not allowed if the buffer has been reduced.~~

16.16.660 Wetland buffer increases.

~~The technical administrator shall have the authority to increase the width of the standard buffer width on a case-by-case basis when there is sound evidence that a larger buffer is required by an approved habitat management plan as outlined in WCC 16.16.750, or such increase is necessary to:~~

- ~~A. Protect the function and value of that wetland including, but not limited to, compensating for a poorly vegetated buffer or a buffer that has a steep slope (greater than 30 percent); or~~
- ~~B. A. Prevent windthrow damage; or~~
- ~~C. A. Maintain viable populations of species such as herons and other priority fish and wildlife; or~~
- ~~D. A. Protect wetlands or other critical areas from landslides, erosion or other hazards.~~

16.16.670 Wetlands – Review and Reporting Requirements.

- A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration may contain [wetland indicators, contain](#) or abut wetlands or wetland buffers, the ~~technical administrator~~ [Director](#) may require a site evaluation (reconnaissance) or critical area assessment report by a qualified professional to determine whether or not a regulated wetland is present and, if so, its relative location in relation to the proposed project area or site. If no regulated wetlands are present, then wetland review will be considered complete.
- B. If the ~~technical administrator~~ [Director](#) determines that a wetland [indicator](#) is more likely than not present, ~~ts/he technical administrator~~ shall require a wetland assessment report pursuant to WCC [16.16.255](#) and sub-sections C and D of this section.
- C. A wetland assessment is an element of a critical area assessment report that describes the characteristics of the subject property and adjacent areas. The wetland assessment shall include the occurrence, distribution, delineation, and determination of the wetland category and standard wetland buffers as set forth in WCC [16.16.630](#), and may include analysis of historical aerial photos, and review of public records.
- D. A wetland assessment shall include the following site- and proposal-related information unless the ~~technical administrator~~ [Director](#) determines that any portion of these requirements is already required by Article 2, or unnecessary given the scope and/or scale of the proposed development:
 1. Location information (legal description, parcel number, and address);
 2. A vicinity map;
 3. A site plan that includes scale and wetlands and associated buffers and proposed development if appropriate;
 4. A qualitative written assessment and accompanying maps of wetlands and buffers within 300 feet of the site and an estimate of the existing acreage for each. For on-site wetlands, the assessment shall include the dominant and subdominant plant species; soil type, color and texture; sources of hydrology (patterns of surface and subsurface water movement, precipitation, etc.); topography; and other pertinent information. The assessment of off-site

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wetlands shall be based on available information and shall not require accessing off-site properties;

5. Wetland Analysis. An analysis of all wetlands and buffers (to the extent they can be legally accessed) including, at a minimum, the following information:
 - a. Wetland delineation conducted by a qualified professional and completed in accordance with WCC [16.16.610\(A\)](#).
 - b. The wetland boundary shall be marked in the field (with flagging left in the field for Whatcom County verification and placed high enough to allow line of sight with vegetation growth) and surveyed using a methodology appropriate to scale of development. The surveyed wetlands areas shall be mapped showing location and size of all wetlands. Methodology used shall be in the report with description of equipment (specs), accuracy, and pertinent description of how the coordinates were gathered.
 - c. Determination of each wetland size.
 - d. Description of each wetland class and category.
 - e. Description of overall water sources and drainage patterns on site. Include all streams and drainages (Type S, F, Np, or Ns streams), shorelines, floodplains, flood-prone areas.
 - f. Description of vegetation, hydrologic conditions, and soil and substrate conditions.
 - g. Description of wildlife and habitat. Include all critical habitat for threatened and endangered species within 300 feet of the development footprint.
 - h. Topographic elevation, at two-foot contours provided by Whatcom County PDS for single-family proposals.
 - i. Functional assessment of the wetland and adjacent buffer using a local or state agency-recognized method and including the reference of the method and all data sheets.
 - j. Standard buffer requirements for each wetland. Copies of the wetland rating forms and associated figures from the Ecology Wetland Rating System for Western Washington, as amended.
- E. For single-family building permits, the applicant may hire a qualified professional to prepare the assessment report or may request that the County assess the regulated wetland(s) and buffers and determine the impacts associated with the project, subject to the following:
 1. ~~Availability of Field investigation by~~ County staff shall be at the discretion of the ~~technical administrator~~ Director and subject to workload and scheduling constraints.
 2. Fees for County staff services shall be in accordance with the unified fee schedule.
- F. If a regulated wetland buffer from a neighboring property extends onto a proposed development site for which review under this chapter is required, the ~~technical administrator~~ Director shall have the authority to require that deterrent devices be placed at the edge of the buffer in accordance with WCC [16.16.265](#). The applicant shall provide ~~written~~ documentation that no buffer encroachment will occur. The documentation shall be on a form provided by the Department ~~in the form of a letter or similar affidavit~~.

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16.16.680 Wetlands – Mitigation Standards.

In addition to the applicable general protective measures found in WCC [16.16.265](#), activities that adversely affect wetlands and/or wetland buffers shall include mitigation sufficient to achieve no net loss of wetland function and values in accordance with WCC [16.16.260](#) and this section.

- A. In determining the extent and type of mitigation required, the ~~technical administrator~~ Director may consider all of the following when applicable:
1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;
 2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;
 3. Observed or predicted trends regarding the gains or losses of specific wetland types in the watershed, in light of natural and human processes;
 4. The likely success of the proposed mitigation measures;
 5. Effects of the mitigation actions on neighboring properties; and
 6. Opportunities to implement restoration actions formally identified by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter [90.82](#) RCW, a watershed plan prepared pursuant to Chapter [400-12](#) WAC, a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement, a fully authorized mitigation bank (WCC [16.16.263](#)), or an in-lieu-fee program.

~~Compensatory mitigation shall be provided on site or off site in the location that will provide the greatest ecological benefit and have the greatest likelihood of success; provided, that mitigation occurs as close as possible to the impact area and within the same watershed as the permitted alteration. This provision may be waived upon demonstration through a watershed or landscape based analysis that mitigation within an alternative sub-basin of the same basin would have the greatest ecological benefit and the greatest likelihood of success; provided, that limiting functions shall not be removed from sensitive watersheds identified in WCC Title 20. Mitigation shall occur within WRIA 1 or 3.~~

~~All mitigation areas shall be protected and managed to prevent degradation and ensure permanent protection of critical area functions and values. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC 16.16.265.~~

~~Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora; provided, that the technical administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).~~

B. Type of Mitigation.

Commented [CES70]: Now covered in 16.16.260

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1. **Wetland Alterations.** Compensatory mitigation projects shall restore, create, rehabilitate, enhance, and/or preserve equivalent wetland functions and values pursuant to no net loss of function and area. Compensation for wetland alterations shall occur in the following order of preference:
 - a. Reestablishing (also referred to as restoring) wetlands on upland sites that were formerly wetlands.
 - b. Creating wetlands on disturbed upland sites such as those consisting primarily of nonnative, invasive plant species.
 - c. Rehabilitation of existing wetlands for the purposes of repairing or restoring natural and/or historic hydrologic functions.
 - d. Enhancing existing significantly degraded wetlands.
 - e. Preserving Category I or II wetlands that are under imminent threat; provided, that preservation shall only be allowed in combination with other forms of mitigation ~~and~~ when the ~~technical administrator~~ Director determines that the overall mitigation package fully replaces the functions and values lost due to development.
2. **Buffer Alterations.** Compensatory mitigation for buffer impacts:
 - a. Shall be consistent with WCC [16.16.630](#) through [16.16.660](#); and
 - b. May include enhancement of degraded buffers by planting native species, removing structures and impervious surfaces within buffers, and other measures to achieve equivalent or greater buffer functions.

C. Mitigation Ratios.

1. ~~Compensation for wetland buffer impacts shall occur at a minimum 1:1 ratio on an area basis.~~ Compensatory mitigation for wetland alterations shall be based on the wetland category and the type of mitigation activity proposed. The replacement ratio shall be determined according to the ratios provided in Table 2; provided, that the replacement ratio for preservation shall be 10 times the ratio for reestablishment or creation. The created, reestablished, rehabilitated, or enhanced wetland area shall, at a minimum, provide a level of function equivalent to the wetland being altered and shall be located in an appropriate landscape setting.
2. The mitigation ratios noted in Table 2 shall not apply to mitigation banks as defined by this chapter. Credit and debit procedures for mitigation banks shall be determined in accordance with the mitigation banking provisions outlined in WCC [16.16.263](#).
3. The ~~technical administrator~~ Director shall have the authority to adjust the ~~replacement mitigation~~ ratios in Table 2 when one or more of the following apply:
 - a. When a combination of mitigation approaches is proposed. In such cases, the area of altered wetland shall be replaced at a 1:1 ratio through reestablishment or creation, and the remainder of the area needed to meet the ratio can be replaced by enhancement or rehabilitation using Table 2.
 - b. When the project proponent has a demonstrated ability, based on past performance, to successfully design, construct, monitor and maintain wetland mitigation projects/sites.

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- c. ~~When use of the guidance for Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington (Department of Ecology Publication No. 10-06-011, as amended) results in a lower mitigation ratio than the standard ratios.~~
- 4. For permanent impacts to wetland buffers, unless the Director approves a habitat management plan with different ratios, mitigation shall be provided at the following ratios:
 - a. Where the mitigation is in place and functional before the impact occurs (i.e., advanced mitigation), at a ratio determined by the functions, values, and goals of an advanced mitigation plan.
 - b. Where the mitigation is in place and functional before within 1 year of the impacts occurring (i.e., advanced mitigation), at a 1:1 ratio (area or function); and
 - c. Where the mitigation is placed after 1 year of the impact occurring, at a 1.25:1 ratio (area or function); and
 - d. For retroactive permits the Director may require the ratio to be up to ~~shall be double the~~ ratio in subsection (c) above.

Commented [P/C71]: P/C motion to amend as shown. Passes 7-0

Table 2. Compensatory Mitigation Ratios for Projects in Western Washington¹

Category and Type of Wetland Impacts	Reestablishment or Creation	Rehabilitation Only	Reestablishment or Creation (R/C) and Rehabilitation (RH)	Reestablishment or Creation (R/C) and Enhancement (E)	Enhancement Only
All 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
All 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 Estuarine	Case-by-case	4:1 Rehabilitation of an estuarine wetland	Case-by-case	Case-by-case	Case-by-case
All other 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	No alteration allowed unless an essential public facility				

(Ratios indicate mitigation area to area disturbed.)

~~D. Reestablished or created wetlands established pursuant to these mitigation provisions shall have adequate buffers to ensure their protection. The buffer shall be based on the category of the reestablished, created, rehabilitated, enhanced, or preserved wetland.~~

~~E. A. Compensatory mitigation shall be provided on site or off site in the location that will provide the greatest ecological benefit and have the greatest likelihood of success; provided, that mitigation occurs as close as possible to the impact area and within the same watershed as the permitted alteration. This provision may be waived upon demonstration through a watershed or landscape~~

¹ From Wetlands in Washington, Volume 2, Appendix 8C, Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System, Table 8C-11.

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~~based analysis that mitigation within an alternative sub-basin of the same basin would have the greatest ecological benefit and the greatest likelihood of success; provided, that limiting functions shall not be removed from sensitive watersheds identified in WCC Title 20. Mitigation shall occur within WRIA 1 or 2.~~

~~F.A. All mitigation areas shall be protected and managed to prevent degradation and ensure permanent protection of critical area functions and values. Permanent protection shall be achieved through deed restriction or other protective covenant in accordance with WCC 16.16.265.~~

~~G.A. Where feasible, mitigation projects shall be completed prior to activities that will disturb wetlands. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora; provided, that the technical administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).~~

16.16.690 **Wetland Compensatory-Wetland Mitigation Plan.**

- A. In addition to meeting the requirements of WCC [16.16.260](#)(B), a **compensatory** mitigation plan for wetland and wetland buffer impacts shall meet the following:
1. Provide an analysis of existing wetland functions and values and a detailed description of the effects of the proposed development on wetland and buffer function and value, including the area of direct wetland disturbance, area of buffer disturbance, area of buffer reduction, and area of buffer averaging, including documentation that the functions and values will be increased through reduction or average; effects of stormwater management; proposed hydrologic alteration including changes to natural drainage or infiltration patterns; effects on fish and wildlife species and their habitats; clearing and grading impacts; temporary construction impacts; and effects of increased noise, light, and human intrusion.
 2. The plan shall be based on applicable portions of the Washington State Department of Ecology's Guidelines for Developing Freshwater Wetland Mitigation Plans and Proposals, 2004, or other appropriate guidance document that is consistent with best available science.
 3. The plan shall contain sufficient information to demonstrate that the proposed activities are logistically feasible, constructible, ecologically sustainable, and likely to succeed. Specific information to be provided in the plan shall include:
 - a. The rationale for site selection;
 - b. General goals of the plan, including wetland function, value, and acreage;
 - c. Description of baseline (existing) site conditions including topography, vegetation, soils, hydrology, habitat features (e.g., snags), surrounding land use, and other pertinent information;
 - d. Field data confirming the presence of adequate hydrology (surface and/or groundwater) to support existing and **compensatory-mitigated** wetland area(s);
 - e. Nature of mitigation activities, including area of restored, created, enhanced, rehabilitated and preserved wetland, by wetland type;

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- f. Detailed grading and planting plans showing proposed post-construction topography; general hydrologic patterns; spacing and distribution of plant species; size and type of proposed planting stock; watering or irrigation plans; and other pertinent information;
 - g. To facilitate establishment of a stable community of native plants, ~~A~~ description of site treatment measures including removal of noxious weeds and/or ~~invasive species removal,~~ use of mulch and fertilizer, placement of erosion and sediment control devices, and best management practices that will be used to protect existing wetlands and desirable vegetation;
 - ~~g-h.~~ A demonstration that the site will have adequate buffers sufficient to permanently protect the wetland functions.
- B. All ~~compensatory~~ mitigation projects shall be monitored in accordance with WCC 16.16.260(C) for a period necessary to establish that performance standards have been met. The ~~technical administrator~~ Director shall have the authority to extend the monitoring period for up to 10 years and require additional monitoring reports when any of the following conditions apply:
 - 1. The project does not meet the performance standards identified in the mitigation plan.
 - 2. The project does not provide adequate replacement for the functions and values of the impacted critical area.
 - 3. The project involves establishment of forested plant communities, which require longer time for establishment.
- C. Reports shall be submitted annually for the first three years following construction and at the completion of years five, seven and 10 if applicable to document milestones, successes, problems, and contingency actions of the ~~compensatory~~ mitigation.

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Article 7. Fish & Wildlife Habitat Conservation Areas (HCA)

16.16.700 Purpose.

The purposes of this article are to:

- A. Protect, restore, and maintain native fish and wildlife populations by protecting and conserving fish and wildlife habitat and protecting the ecological processes, functions and values, and biodiversity that sustain these resources.
- B. Protect marine shorelines, valuable terrestrial habitats, lakes, ponds, rivers, and streams and their associated riparian areas, and the ecosystem processes on which these areas depend.
- C. Regulate development so that isolated populations of species are not created and habitat degradation and fragmentation are minimized.
- D. Maintain the natural geographic distribution, connectivity, and quality of fish and wildlife habitat and ensure no net loss of such important habitats, including cumulative impacts.

16.16.710 Habitat Conservation Areas – Designation, Mapping, and Classification.

- A. Habitat conservation areas, ~~as defined in Article 9 of this chapter,~~ are those areas identified as being of critical importance to the maintenance of certain fish, wildlife, and/or plant species. These areas are typically identified either by known point locations of specific species (such as a nest or den) or by habitat areas or both. All areas within the county meeting these criteria are hereby designated critical areas and are subject to the provisions of this article.
- B. The approximate location and extent of identified fish, wildlife, and sensitive plant habitat areas are shown on the County's critical area maps as well as state and federal maps. ~~However, these maps are to be used as a guide and do not provide a definitive critical area determination; each applicant is responsible for having a~~ property-specific ~~determination assessment is necessary to determine the extent of the HCA made pursuant to Article 2 of this chapter. The County shall update the maps as new habitat conservation areas are identified and/or more comprehensive information on function, condition, cover type, and resolution is developed.~~
- C. Habitat conservation areas shall include all of the following:
 - 1. Surface Waters of the State~~Streams~~.
 - a. All waterbodies streams which that meet the criteria for Type S, F, Np, or Ns waters as set forth in WAC 222-16-030 of the Washington Department of Natural Resources' (DNR) Water Typing System, as now or hereafter amended.
 - i. Type S streams-waters are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC 222-16-030(1) as now or hereafter amended, as a Type S water and are inventoried as "shorelines of the state" under the Shoreline Management Master Program for Whatcom County, pursuant to Chapter 90.58 RCW. Type S waters contain salmonid fish habitat.
 - ii. Type F waters streams are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC 222-16-030(2) as now or

Commented [CES72]: Covered by 16.16.220

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- hereafter amended, as Type F water. Type F ~~streams~~ waters contain habitat for salmonid fish, game fish and other anadromous fish.
- iii. Type Np ~~waters streams~~ are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC [222-16-030](#)(3) as now or hereafter amended, as Type Np water. Type Np waters do not contain fish habitat.
 - iv. Type Ns ~~waters streams~~ are those surface waters which meet the criteria of the Washington Department of Natural Resources, WAC [222-16-030](#)(4) as now or hereafter amended, as a Type Ns water. These streams are areas of perennial or intermittent seepage, ponds, and drainage ways having short periods of spring or storm runoff. Type Ns waters do not contain fish.
2. ~~Ditches or other artificial watercourses are considered streams for the purposes of this chapter when:~~
 - a. ~~Used to convey natural streams existing prior to human alteration; and/or~~
 - b. ~~The waterway is used by anadromous or resident salmonid or other resident fish populations; or~~
 - c. ~~Flows directly into shellfish habitat conservation areas.~~
 3. Areas in which federally listed species are found, have a primary association with, or contain suitable or federally defined critical habitat for said listed species, as listed in the U.S. Fish and Wildlife's Threatened and Endangered Species List or Critical Habitat List (<http://ecos.fws.gov/ecp/>) or the National Marine Fisheries Service (NMFS) (<https://www.fisheries.noaa.gov/species-directory/threatened-endangered>), as amended.
 4. Areas in which state-listed priority species are found, have a primary association with, or contain suitable habitat for said listed species, as listed in the Washington Department of Fish and Wildlife's Priority Habitats and Species List (<http://wdfw.wa.gov/mapping/phs/> or <http://wdfw.wa.gov/conservation/phs/list/>), as amended.
 5. State priority habitats and areas associated with state priority species as listed in Washington Department of Fish and Wildlife's Priority Habitats and Species List (<http://wdfw.wa.gov/mapping/phs/> or <http://wdfw.wa.gov/conservation/phs/list/>), as amended.
 6. Areas in which state-listed rare plant species are found, or contain suitable habitat for said listed species, as listed in the Department of Natural Resources' Natural Heritage Program (<http://www1.dnr.wa.gov/nhp/refdesk/plants.html>), as amended.
 7. Areas in which state-listed saltwater critical areas are found, as listed in WAC [173-26-221](#)(2)(c)(iii).
 8. Areas in which state-listed freshwater critical areas are found, as listed in WAC 173-26-221(2)(c)(iv).
 - ~~9.~~ 9. Naturally occurring ~~ponds~~ or manmade ponds and lakes under 20 acres in size and created prior to September 30, 2005, excluding agricultural, fire protection, and stormwater facilities.
 - ~~9-10.~~ 10. ~~All other waters defined as w~~Waters of the state, ~~including marine waters.~~

Commented [P/C73]: Reinserted by the P/C 7-0-2-0.

Commented [RE74]: This is covered by Type S or Type F, Np, Ns water types

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- ~~10-11.~~ Natural area preserves, aquatic reserves, and natural resource conservation areas as defined by the Washington Department of Natural Resources.
- ~~11-12.~~ Portions of the San Juan Islands National Monument within Whatcom County (including Chuckanut Rock, tip of Eliza Island, Eliza Island Rocks, Lummi Rocks, Baker's Reef, Carter Point, Carter Point Rock, and Seal Rock at the north end of Lummi Island, and subsequently designated areas).
- ~~12-13.~~ Frequently flooded areas that are subject to the Federal Emergency Management Agency's National Flood Insurance Program Biological Opinion (FEMA BiOp).
- ~~13-14.~~ Species and Habitats of Local Importance. Locally important species and habitats that have recreational, cultural, and/or economic value to citizens of Whatcom County, including the following:
- a. Species. The Department of Planning and Development Services shall maintain a current list of species of local importance as designated by the County Council.
 - b. Habitats.
 - i. The marine nearshore habitat, including coastal lagoons, and the associated vegetated marine riparian zone. These areas support productive eelgrass beds, marine algal turf, and kelp beds that provide habitat for numerous priority fish and wildlife species including, but not limited to, forage fish, seabird and shorebird foraging and nesting sites, and harbor seal pupping and haulout sites. This designation applies to the area from the extreme low tide limit to the upper limits of the shoreline jurisdiction; provided, that reaches of the marine shoreline that were lawfully developed for commercial and industrial uses prior to the original adoption of this chapter may be excluded from this designation, but not otherwise exempt from this chapter.
 - ii. The Chuckanut wildlife corridor, which extends east from Chuckanut Bay and adjacent marine waters, including Chuckanut Mountain, Lookout Mountain, the northern portions of Anderson Mountain, and Stewart Mountain continuing along the southern Whatcom County border to Mount Baker/Snoqualmie National Forest boundary. This area represents the last remaining place in the Puget Trough where the natural land cover of the Cascades continues to the shore of Puget Sound.
 - iii. The Department of Planning and Development Services shall maintain a current list and map of habitats of local importance, as designated by the County Council.
- D. In addition to the species, habitats, and wildlife corridors identified in subsection (C)(12) of this section, the Council may designate additional species, habitats of local importance, and/or wildlife corridors as follows:
1. In order to nominate an area, species, or corridor to the category of "locally important," an individual or organization must:
 - a. Demonstrate a need for special consideration based on:
 - i. Identified species of declining population;
 - ii. Documented species sensitive to habitat manipulation and cumulative loss;
 - iii. Commercial, recreational, cultural, biological, or other special value; or

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- iv. Maintenance of connectivity between habitat areas;
 - b. Propose relevant management strategies considered effective and within the scope of this chapter;
 - c. Identify effects on property ownership and use; and
 - d. Provide a map showing the species or habitat location(s).
2. Submitted proposals shall be reviewed by the County and may be forwarded to the State Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.
3. If the proposal is found to be complete, accurate, and consistent with the purposes and intent of this chapter and the various goals and objectives of the Whatcom County comprehensive plan and the Growth Management Act, the County Council will hold a public hearing to solicit comment. Approved nominations will become designated locally important habitats, species, or corridors and will be subject to the provisions of this chapter.
4. The Council may remove species, habitats, or corridors from this list if it can be shown that there is no longer a need to provide protection beyond that afforded by WDFW management strategies. Species and habitats of local importance that are not regulated elsewhere in this chapter may be removed if sufficient evidence has been provided by qualified professionals that demonstrates that the species no longer meets any provisions of subsection (D)(1)(a) of this section.

16.16.720 Habitat Conservation Areas – ~~General standards~~ Use and Modification.

The following activities may be permitted in habitat conservation areas and/or their buffers when, pursuant to WCC ~~Chapter 16.16 (Critical Areas) 255 and 16.16.260,~~ all reasonable measures have been taken to avoid adverse effects on species and habitats, any applicable Washington Department of Fish and Wildlife management recommendations have been applied, mitigation is provided for all adverse impacts that cannot be avoided, and the amount and degree of the alteration are limited to the minimum needed to accomplish the project purpose; provided, that locally important species and habitats shall be subject to WCC 16.16.730710(C)(12):

A. **Reasonable Use.** Developments that meet the reasonable use ~~and or~~ variance standards set forth in WCC 16.16.270 and 16.16.273, respectively.

B. Utilities.

- 1. ~~New~~ **Utility lines** and facilities may be permitted when all of the following criteria are met:
 - a. The least impactful construction or installation methodology is used as demonstrated through an alternatives analysis.
 - a-b. Impacts to fish and wildlife habitat and/or corridors shall be avoided to the maximum extent possible.
 - b-c. Where feasible, installation shall be accomplished by boring beneath the scour depth of the stream or waterbody and the width of the channel migration zone where present.

Commented [CES75]: Note: The order of the existing text has been changed to match that in 16.16.620, though not shown in track changes as it would become too confusing.

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- ~~e-d.~~ Trenching of utilities across a stream channel shall be conducted as perpendicular to the channel centerline as possible whenever boring under the channel is not feasible. Utilities shall be installed below potential scour depth regardless of method.
- ~~d-e.~~ Crossings shall be contained within the footprint of an existing road or utility crossing where possible.
- ~~e-f.~~ The utility installation shall not increase or decrease the natural rate, extent, or opportunity of channel migration.

2. On-site sewage disposal systems (OSS) may be permitted in FWHCA buffers when accessory to an approved single-family residence when:

- ~~a.~~ It is not feasible to connect to a public sanitary sewer system; and
- ~~b.~~ It is located as far as possible from the FWHCA buffer; and
- ~~a-c.~~ It is operated and maintained in accordance with WCC 24.05.160; provided, that adverse effects on water quality are avoided. ~~may be permitted in nonaquatic HCA buffers and in the outer 50 percent of streams or other aquatic HCA buffers when accessory to an approved residential structure for which there are no alternatives and when it is not feasible to connect to a public sanitary sewer system and when operated and maintained in accordance with WCC Chapter 24.05; provided, that adverse effects on water quality and slope stability are avoided.~~

~~2-3.~~ Domestic wells serving single-family developments (including plats, short plats, and individual single-family residences) and necessary appurtenances, including a pump and appropriately sized pump house, but not including a storage tank, in HCA buffers when all of the following conditions are met:

- a. There is no viable alternative to the well site outside of the buffer and the well is located as far back from the wetland edge as is feasible;
- b. Any impacts to the HCA buffer from staging equipment and the well-drilling process are mitigated.

~~B-C.~~ Stream crossings, provided they meet all the following criteria:

- ~~1.~~ The stream crossing is for an allowed use.
- ~~1-2.~~ There is no other feasible alternative route with less impact on critical areas.
- ~~2-3.~~ The crossing minimizes interruption of natural processes such as channel migration, the downstream movement of wood and gravel, and the movement of all fish and wildlife. Bridges are preferred for all stream crossings and should be designed to maintain the existing stream substrate and gradient, span the bankfull width, or be proven to not have an appreciable increase in backwater elevation at a minimum of a 100-year event and provide adequate vertical clearance for debris likely to be encountered at high water.
- ~~3-4.~~ Culverts shall be designed according to applicable state and federal guidance criteria for fish passage as identified in Water Crossing Design Guidelines, WDFW 2013, as amended, and/or the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000 (and subsequent revisions), and in accordance with a state hydraulic project approval. The applicant or property owner shall maintain fish passage ~~through the bridge or culvert.~~

Commented [JPS76]: Guidelines also indicate relocation is an acceptable solution and may provide ecological lift if relocation is back to original stream bed location.

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- 4.5. The County may require that existing culverts be removed, replaced, or fish passage barrier status corrected as a condition of approval if the culvert is detrimental to fish passage or water quality.
- 5.6. Roadway widths at culvert crossings shall be limited to the minimum width necessary to accommodate the roadway's classification. Culvert length shall be the minimum that is compatible with the roadway width.
- 6.7. Shared common crossings are the preferred approach where multiple properties can be accessed by one crossing.

D. Private Access. Access to private development sites may be permitted to cross ~~habitat conservation areas~~FWHCAs and their buffers if ~~there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24RCW. Exceptions or deviations from technical standards may be considered by the technical administrator on a case-by-case basis where the resulting outcome reduces overall impacts to any identified critical area.~~

- 1. ~~If~~there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of Chapter 8.24 RCW.
- 2. ~~The access is designed to cause the least impact to the habitat conservation area and/or its buffer (which may require the applicant to apply for an exception or deviation from the Development Standards)~~
- 7.3. ~~Access is not achievable through the administrative provisions of WCC 16.16.740 (Buffer Modification).~~

Commented [CES77]: Reworded for clarity

E. Agricultural Uses. Construction or improvements, other than ~~a~~buildings, that are associated with an agricultural use in the outer ~~25% percent~~ of the CPAL designated buffer; or the reconstruction, remodeling, or maintenance of such structures in a habitat conservation area buffer, subject to all of the following criteria:

- 1. The structure is located within an existing lot of record and is an ongoing agricultural use.
- 2. There is no other feasible location with less impact to critical areas. However, this provision does not apply to the reconstruction, maintenance and/or remodeling of preexisting structures.
- 3. Clearing and grading activity and impervious surfaces are limited to the minimum necessary to accommodate the proposed structure and, where possible, surfaces shall be made of pervious materials.
- 4. Unavoidable adverse effects on critical areas are mitigated in accordance with this chapter.

F. Stormwater Management Facilities.

D.1. Stormwater management facilities limited to detention/retention/treatment ponds, media filtration, lagoons and infiltration basins may be permitted in a stream buffer, subject to all of the following standards:

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- 1.a. The facility is located in the outer ~~50% percent~~ of the standard stream buffer and does not displace or impact a forested riparian community;

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~~2-b.~~ There is no other feasible location for the stormwater facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects on the buffer and adjacent critical areas;

~~3-c.~~ The stormwater facility meets applicable county or state stormwater management standards and the discharge water meets state water quality standards; and

~~4-d.~~ Low impact development approaches have been considered and implemented to the maximum extent feasible.

~~E-2.~~ Stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted in a habitat conservation area buffer on a case-by-case basis when the ~~technical administrator~~ Director determines that all of the following are met:

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~~1-a.~~ Due to topographic or other physical constraints, there are no feasible locations for these facilities outside the buffer;

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~~2-b.~~ The discharge is located as far from the ordinary high water mark as possible and in a manner that minimizes disturbance of soils and vegetation, except on shoreline slopes where location shall be determined by site characteristics to minimize adverse impacts;

~~3-c.~~ The discharge outlet is designed to prevent erosion and promote infiltration;

~~4-d.~~ The discharge meets freshwater and marine state water quality standards, including the need to evaluate cumulative impacts to 303(d) impaired water bodies and total maximum daily load (TMDL) standards as appropriate at the point of discharge. Standards should include filtration through mechanical or biological means, vegetation retention, timely reseeding of disturbed areas, use of grass-lined bioswales for drainage, and other mechanisms as appropriate within approved stormwater "special districts"; and

~~5-e.~~ The discharge outlet is designed to exclude fish from entering or migrating into stormwater conveyance systems.

~~6-3.~~ Phosphorus-reducing BMP structures approved and installed through the homeowners' improvement program (or as may be renamed) within the Lake Whatcom watershed to treat runoff from existing development may be permitted within fish and wildlife habitat conservation area buffers, provided that they are located the maximum feasible distance from the ordinary high water mark~~25 feet of the lake shoreline.~~

G. Recreation.

~~F-1.~~ Trails. Construction of trails ~~and roadways~~ may be permitted in a habitat conservation area buffer when not directly related to a crossing and are subject to all of the following standards:

Commented [CES78]: Amended per Scoping Document item #13c

~~1-a.~~ There is no other feasible alternative route with less impact on the critical area.

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~~2-b.~~ The ~~road or~~ trail minimizes erosion and sedimentation, hydrologic alteration, and disruption of natural processes such as channel migration, wood recruitment and natural wildlife movement patterns.

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~~3-c.~~ Private trails shall not exceed four feet in width, and public trails shall not exceed 10 feet in width, though some portions may be wider to meet the requirements of the Americans with Disabilities Act.

~~d.~~ ~~and They~~ shall be made of pervious material or ~~on an~~ elevated ~~structure~~ where feasible.

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- e. ~~They shall be designed to avoid removal of significant trees.~~
- a-f. Trails may include limited viewing platforms that shall not exceed eight feet in width and shall be made of pervious materials where feasible.
- 4-g. The ~~road or~~ trail through riparian (stream) buffer shall be located in the outer ~~25% percent~~ of the standard buffer, ~~unless necessary to provide educational opportunities.~~
- 5-h. The ~~road or~~ trail is constructed and maintained in a manner that minimizes disturbance of the buffer and associated critical areas.
- 6-2. **Marinas and Launch Ramps.** Construction, reconstruction, repair, and maintenance of marinas and launch ramps may be permitted when consistent with the regulations found in WCC 23.40.060 (Marinas and Launch Ramps), regardless of whether the proposed project is within shoreline jurisdiction or not.
- H-3. **Docks.** Construction, ~~of docks and public launching ramps, and~~ reconstruction, repair, and maintenance of docks ~~and public or private launching ramps~~ may be permitted when consistent with the Army Corps of Engineers' Regional General Permit 6 (Structures in Inland Marine Waters of Washington State) and the regulations found in WCC 23.40.150 (Mooring Structures), regardless of whether or not the proposed project is within shoreline jurisdiction. subject to the following:
 - 1. ~~The dock or ramp is located and oriented and constructed in a manner that minimizes adverse effects on navigation, wave action, water quality, movement of aquatic and terrestrial life, ecological processes, critical saltwater habitats, wetlands, or other critical areas.~~
 - 2. ~~Docks or ramps on shorelines of the state shall comply with WCC Title 23 and state hydraulic project approval requirements.~~
 - 3. ~~Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.~~
 - 4. ~~No net loss to habitat conservation areas or associated wetlands will occur.~~
 - 5. ~~No net loss of juvenile fish migration corridors will occur.~~
 - 6. ~~No net loss of intertidal or riparian habitat function will occur.~~
- 4. **Accessory Uses Structures.** ~~When located in the shoreline jurisdiction, residential water-oriented recreational accessory structures—such as a boat equipment storage shed, an small uncovered boat storage rack, a fire pit, and a pathway leading to the shoreline—may be permitted in an HCA buffer; provided,~~
 - a. ~~Such structures are located as far from the shoreline as feasible and on previously-impacted buffer areas;~~
 - b. ~~The maximum area, inclusive of existing lawfully-established accessory structures, They shall be limited to 10% of the buffer's area or 500 square feet, whichever is less;~~
 - c. ~~No more than 20% of the linear length of shoreline is occupied by a building or structure;~~
 - d. ~~Individual structures shall be limited to a total footprint area of 100-square feet and 10-foot in height; and~~

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Commented [CES79]: Policy Change. This section allows for some recreational uses at the water's edge while meeting no net loss.

Commented [DOE-Req80]: Required Changes – These changes are required for consistency with the SMP Guidelines governing principle that SMP regulations must be designed to achieve no net loss of ecological functions (WAC 173-26-186(8)). The changes add appropriate sideboards to allow a limited and predictable list of common residential developments that may be located within regulated buffers. The changes include more emphasis on the required mitigation sequence including avoidance, minimization and mitigation of impacts to buffers [WAC 173-26-201(2)(e)]

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e. The shoreline is 75% or at ratios outlined in WCC 16.16.760, whichever is greater, planted (or replanted) with native vegetation to a minimum depth of 15 feet landward from the ordinary high water mark.

f. This provision shall not apply to residential developments authorized using the constrained lot provisions of WCC 23.40.150(B).

h. Relocation of streams, or portions of streams, when there is no other feasible alternative and when the relocation will result in equal or better habitat and water quality and quantity, and will not diminish the flow capacity of the stream or other natural stream processes; provided, that the relocation meets state Hydraulic Project Approval requirements and that relocation of shoreline streams shall be prohibited unless the relocation has been identified formally by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement or identified in watershed planning documents prepared and adopted pursuant to Chapter 90.82 RCW, the WRIA 1 Salmonid Recovery Plan, or the WRIA 1 Watershed Management Board Habitat Project List, or the County's Shoreline Restoration Plan.

i. Clearing and grading, when allowed as part of an authorized activity or as otherwise allowed in these standards, may be permitted; provided, that the following shall apply:

1. Grading is allowed only during the designated dry season, which is typically regarded as May to October of each year; provided, that the County may extend or shorten the designated dry season on a case-by-case basis, based on actual weather conditions. Special scrutiny shall be given to Lakes Samish, Padden, and Whatcom watersheds, and water resource special management areas as described in WCC 20.80.735.
2. Appropriate erosion and sediment control measures shall be used at all times, consistent with best management practices in the Department of Ecology's Stormwater Management Manual for Western Washington. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, disturbed topsoil shall be salvaged and/or redistributed to other areas of the site. Areas shall be revegetated as needed to stabilize the site.
3. The moisture-holding and infiltration capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all are-as of the project area not covered by impervious surfaces.

k. Shoreline Streambank Stabilization and shoreline protection may be permitted when consistent with the shoreline stabilization regulations found in 23.40.190 (Shoreline Stabilization), regardless of whether the proposed project is within shoreline jurisdiction or not. subject to all of the following standards:

- ~~1. The stabilization or protection measures shall be designed in accordance with the techniques contained within the Washington Department of Fish and Wildlife's most recent Integrated Streambank Protection Guidelines. Deviation from these techniques requires written justification from a qualified professional/engineer.~~
- ~~2. Natural shoreline processes will be maintained to the maximum extent practicable.~~
- ~~3. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.~~

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- ~~4. Stream and shoreline protection and launching ramps on shorelines of the state shall comply with WCC Title 23 and with state hydraulic project approval requirements.~~
- ~~5. No net loss to habitat conservation areas or associated wetlands will occur.~~
- ~~6. No net loss of juvenile fish migration corridors will occur.~~
- ~~7. No net loss of intertidal or riparian habitat function will occur.~~
- ~~8. Nonstructural measures, such as placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not practicable or not sufficient.~~
- ~~9. Stabilization is achieved through bioengineering or soft armoring techniques in accordance with an applicable hydraulic permit approval issued by the Washington State Department of Fish and Wildlife.~~
- ~~10. Hard bank armoring is discouraged and may occur only when the property contains an existing permanent structure(s) that is in danger from shoreline erosion caused by wave action or riverine processes and not erosion caused by upland conditions, such as the alteration of natural vegetation or drainage, and the armoring shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply. An objective alternatives analysis, addressing upstream and downstream impacts, shall be conducted to demonstrate that there is no other less environmentally damaging alternative to the more impacting proposed action.~~
- ~~11. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not a demonstration of need.~~
- ~~12. The bank stabilization or shore protection will not adversely affect habitat conservation areas or mitigation will be provided to compensate for adverse effects where avoidance is not feasible.~~

~~L.K.~~ **New Public Flood Protection Measures** and expansion of existing ones may be permitted, subject to WCC Title 17, Article 4 of this chapter and a state hydraulic project approval; provided, that bioengineering or soft armoring techniques shall be used where feasible. Hard bank armoring may occur only in situations where soft approaches do not provide adequate protection.

L. In-stream structures such as, but not limited to, high-flow bypasses, dams, and weirs, shall be allowed only as part of a watershed restoration project as defined pursuant to WCC ~~Title 23.110.230(10)~~ or identified in watershed planning documents prepared and adopted under Chapter 90.82 RCW, the salmonid recovery plan or watershed management board habitat project list, and the County's shoreline restoration plan and upon acquisition of any required state or federal permits. The structure shall be designed to avoid adverse effects on stream flow, water quality, or other habitat functions and values.

~~M. Single family developments may be permitted to encroach into stream buffers subject to the technical administrator's approval; provided, that all of the criteria in WCC 16.16.270(B) are met.~~

~~N.M.~~ All other development may be allowed in shellfish protection districts outside of actual shellfish habitats with a valid ~~development project~~ permit and when the requirements of subsection O of this section are met.

~~O.N.~~ Alteration or removal of **beaver-built structures** more than two years old; provided, that:

Commented [CES81]: Not needed. 16.16.270 would apply to any type of development and is covered by (A)

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1. The property owner can show that the beaver dam is harming or likely to harm his or her property.
2. It has been demonstrated that beaver deceivers or auto leveler devices cannot appropriately resolve ponding/backwatering that is negatively affecting adjacent land or property.
3. Impacts to wetland, river, or stream functions are minimized and mitigation is provided to compensate for lost ecological value.
4. The property owner obtains an HPA from WDFW prior to initiating alteration or removal of the beaver-built structure.
5. The property owner provides a copy of the HPA to the ~~technical administrator~~ Director.

P.O. On Eliza Island, applicants shall complete the U.S. Fish and Wildlife Service (USFWS) self-assessment (<https://www.fws.gov/pacific/eagle/>) to determine whether a USFWS bald eagle permit is needed and, if so, apply for one. Development activities near bald eagle habitat shall be carried out consistent with the National Bald Eagle Guidelines.

P. Timber Removal.

1. To allow for greater flexibility in a development proposal when an application has been submitted for a Conversion Option Harvest Plan (COHP) or a Class IV General FPA, an applicant has the opportunity to remove timber within the standard buffers if the applicant's mitigation measures incorporate all of the performance standards based upon water type listed in Table 3. In conformance with professional standards used by the Washington Department of Natural Resources for forest practices in sensitive areas, all removal of timber within HCA buffers shall be subject to conditions specified by the Director in conjunction with an on-site technical team review in which participation by representatives of the proponent, Ecology, WDFW, WDNR and natural resource representatives of affected Indian tribes is solicited.
2. The intent of this section is to provide an additional opportunity for an applicant to propose some level of timber removal within the riparian habitat zone, as long as it can be demonstrated that the function of the buffer can be maintained at the levels described below. If the buffer, in its current state, cannot meet these standards, then the Director will not be able to give its approval for any activity which would inhibit recovery of or degrade the current buffer.
3. The current performance of a given buffer area is compared to its potential performance as rated by the Soil Conservation Service's most recent Soil Survey of Whatcom County. In consultation with a representative from the Natural Resource Conservation Service, Soil Conservation District, or professional forester, the applicant will determine the capability of the site for woodland management, using the most suitable tree species according to the soil survey, and establish the stand characteristics that would be expected from a mature stand of those species established on site:
4. If the current stand can exceed the riparian protection that could be expected based on site potential, then additional activity may be allowed provided the following performance standards can be met. ~~For Type S streams, an alternative method may be utilized to allow limited timber harvest within the outer 100 feet of a buffer.~~
5. The provisions of WCC 16.16.720.P above shall not apply within shoreline jurisdiction.

Commented [CES82]: Borrowed from Skagit County, this section would allow timber harvesting to occur w/in buffers while still retaining the HCA's functions. This is aimed at closing a loophole wherein applicants remove timber before applying for a development permit, which is when the CAO becomes applicable (the CAO is not applicable to forest practices except for Class IV Conversions).

Commented [ECY Req'd83]: The change is required for consistency with WAC 173-26-201(2)(a) since the source of the scientific and technical information that supports the provision could not be identified. The provisions also allow for "alternative methods" to allow timber harvest within Type S Streams but provides no detail on what these alternative methods may be. SMP regulations must be sufficient in scope and detail to ensure proper implementation (WAC 173-26-191(2)(a)(ii)(A) and result in no net loss of shoreline ecological functions. A change is required to ensure this new critical area provision, that allows removal up to 50% of timber within regulatory buffer areas, does not apply within shoreline jurisdiction.

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Table 3. Performance-Based Riparian Standards*

Water type	Performance Standards
Type S	<p><u>Maintain 95% of total LWD recruitment expected to enter freshwater stream(s) from a mature stand; and</u></p> <p><u>Maintain 85% of the trees which are greater than 24 inches DBH within 100 feet of the water(s); and</u></p> <p><u>Maintain an average of 75% canopy cover (based on canopy densitometer readings at the water(s) edge).</u></p> <p><u>The applicant may further request some limited timber harvest of up to 30% of the merchantable timber within the outer 100 feet of any 200-foot required buffer provided the harvest:</u></p> <p><u>(a) Does not reduce the LWD and canopy requirements; and</u></p> <p><u>(b) The applicant will increase the total buffer size by 50 feet to mitigate for the limited timber harvest in the required buffer to provide additional wildlife habitat. The additional 50-foot buffer shall retain a minimum of 50% of the total number of trees with 25% of the total trees left having a diameter at breast height (DBH—4-1/2 feet) greater than 12 inches; and</u></p> <p><u>(c) No more than 50% of the dominant trees in the outer 100 feet may be harvested.</u></p>
Type F	<p><u>Maintain 85% of total LWD recruitment expected to enter freshwater stream(s) from a mature stand; and</u></p> <p><u>Maintain 85% of the trees which are greater than 18 inches DBH within 100 feet of the water(s); and</u></p> <p><u>Maintain an average of 75% canopy cover (based on canopy densitometer readings at the water(s) edge).</u></p>
Types Np and Ns	<p><u>Maintain 50% of total LWD recruitment expected to enter freshwater stream(s) from a mature stand; and</u></p> <p><u>Maintain 85% of the trees which are greater than 24 inches DBH within 50 feet of the water(s); and</u></p> <p><u>Maintain an average of 75% canopy cover (based on canopy densitometer readings at the water(s) edge).</u></p>

* Note: These standards must be exceeded before additional activity can be permitted within the riparian zone. Applicants electing to employ performance-based mitigation in accordance with the above matrix shall include appropriate analysis and justification in their site assessment/habitat management plan.

16.16.730 Locally Important Habitats and Species – Standards.

Alterations that occur within a locally important habitat area or that may affect a locally important species as defined herein shall be subject to review on a case-by-case basis. The technical administrator shall have the authority to require an assessment of the effects of the alteration on species or habitats

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~~and may require mitigation to ensure that unmitigated adverse effects do not occur. This standard is intended to allow for flexibility and responsiveness with regard to locally important species and habitats.~~

16.16.740-730 Habitat Conservation Area Buffers – Standards.

In addition to the applicable general protective measures found in WCC [16.16.265](#) and [16.16.720](#), the ~~technical administrator~~ Director shall have the authority to require buffers from the edges of all habitat conservation areas ~~(in addition to the building setback required by 16.16.265(D))~~ in accordance with the following:

A. General.

~~A.1.~~ Buffers shall be established for activities adjacent to habitat conservation areas as necessary to protect the integrity, functions, and values of the resource. Buffer widths shall reflect the sensitivity of the species or habitat present and the type and intensity of the proposed adjacent human use or activity. Buffers shall not include areas ~~that are functionally and effectively disconnected from the habitat conservation area by an existing, legally established road or other that are functionally and effectively disconnected from the habitat area by of an existing, legally established road or other~~ substantially developed surface.

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B. Stream Buffers.

~~C.2.~~ The standard buffer widths required by this Article are considered to be the minimum required and presume the existence of a dense vegetation community in the buffer zone adequate to protect the ~~stream ecological~~ functions and values at the time of the proposed activity. When a buffer lacks adequate vegetation to protect critical area functions, the ~~technical administrator~~ Director may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

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~~3.~~ The standard buffer shall be measured landward horizontally ~~from the edge of the ordinary high water mark as identified in the field. The required buffer shall be extended to include any abutting regulated wetland(s), landslide hazard areas, and/or erosion hazard areas and required buffers.~~

~~1-4.~~ For streams, the standard buffer is measured ~~on both sides of the stream~~ from the ordinary high water ~~on both sides of the stream~~ mark as identified in the field; provided, that for streams with identified channel migration zones, the buffer shall extend outward horizontally from the outer edge of the channel migration zone on both sides. ~~The required buffer shall be extended to include any abutting regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not be extended across roads or other lawfully established structures or hardened surfaces.~~

~~2.~~ The following standard buffer width requirements are established:

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~~a.~~ Shoreline streams: 150 feet;

~~b.~~ Fish-bearing streams: 100 feet;

~~c.~~ Non fish-bearing streams: 50 feet.

Commented [CES85]: Moved to Table 4

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~~3.5~~ Portions of streams that flow underground may be exempt from these buffer standards at the ~~technical administrator~~ **Director's** discretion when it can be demonstrated that no adverse effects on aquatic species will occur.

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B. ~~Buffers for Other~~ Habitat Conservation Areas Buffer Widths.

~~1.~~ Standard buffer widths for habitat conservation areas shall be as identified in Table 4.

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~~2.~~ For habitat conservation areas not listed in Table 4, including those of locally important habitats and species and State priority habitats and areas with which federally listed or state priority species have a primary association, minimum buffers shall be based on habitat a management plan prepared pursuant to WCC 16.16.750. ~~he technical administrator shall determine appropriate buffer widths for other habitat conservation areas.~~ The Director shall have the authority to require a critical area assessment report and/or habitat management plan (HMP) pursuant to WCC 16.16.750, and may require mitigation to ensure that unmitigated adverse effects do not occur. ~~based on the best available information. Buffer widths for non-stream habitat conservation areas shall be as identified in Table 3:~~

Table 4. Buffer Requirements for HCAs

Habitat Conservation Area	Buffer Requirement
Type S – Freshwater	Streams – 200 feet Lakes – 100 feet
Type S – Marine	150 feet
Type F – Lake	100 feet
Type F – Stream	150 feet
Type Np	50 feet
Type Ns	50 feet
Manmade ponds identified in 16.16.710 (C)(910)	25 feet, unless otherwise approved through a Habitat Management Plan pursuant to subsection (B)(2), above, or a Conservation Farm Plan pursuant to Article 8
Areas with which federally listed species have a primary association State priority habitats and areas with which priority species have a primary association	Minimum buffers shall be based on recommendations provided by the Washington State Department of Fish and Wildlife PHS Program; provided, that local and site specific factors shall be taken into consideration and the buffer width based on the best available information concerning the species/habitat(s) in question and/or the opinions and recommendations of a qualified professional with appropriate expertise. When there are no state recommendations or species management guidelines then only the building setback (WCC 16.16.265) shall be applied.

Commented [CES86]: Policy change: 200' is the Court recommended based on National Wildlife Federation v. FEMA (Federal District Court Case No. 2:11cv-02044-rsm; NMFS Doc. #2006-00472)

Commented [Co/C87]: Amended pursuant to Resolution 2022-027

Commented [CES88]: Now covered by subsection (B)(2)

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Habitat Conservation Area	Buffer Requirement
Critical saltwater habitats	Buffers shall extend 150 feet landward from ordinary high water mark of the marine shore. Buffers shall not be required adjacent to shellfish protection districts, but only in nearshore areas where shellfish reside.
Natural ponds and lakes	Ponds under 20 acres — Buffers shall extend 50 feet from the ordinary high water mark. Lakes 20 acres and larger (which are subject to WCC Title 23) — Buffers shall extend 100 feet from the ordinary high water mark; provided, that where vegetated wetlands are associated with the shoreline, the buffer shall be based on the wetland buffer requirements in WCC 16.16.630.
Natural area preserves and natural resource conservation areas	Buffers shall not be required adjacent to these areas. These areas are assumed to encompass the land required for species preservation.
Locally important habitat areas	The buffer for marine nearshore habitats shall extend landward 150 feet from the ordinary high water mark. The need for and dimensions of buffers for other locally important species or habitats shall be determined on a case by case basis, according to the needs of the specific species or habitat area of concern. Buffers shall not be required adjacent to the Chuckanut wildlife corridor. The technical administrator shall coordinate with the Washington State Department of Fish and Wildlife and other state, federal or tribal experts in these instances, and may use WDFW PHS management recommendations when available.

Commented [CES89]: Now covered by the water types, above.

Commented [CES90]: Now covered by the water types, above.

Commented [CES91]: Now covered in subsection (B)(2)

16.16.740 Habitat Conservation Area Buffer Modification.

Buffer widths may be increased, decreased, or averaged in accordance with the following provisions, which provide flexible approaches to maximize both ecological functions and allowed uses. All mitigation proposed shall be consistent this Chapter.

A. **Buffer Width Increasing.** The Director may require the standard buffer width to be increased or to establish a non-riparian buffer, when such buffers are necessary for one of the following:

1. To protect priority fish or wildlife using the HCA.
2. To provide connectivity when a Type S or F waterbody is located within 300 feet of:
 - a. Another Type S or F water body; or
 - b. A fish and wildlife HCA; or
 - c. A Category I, II or III wetland;
3. ~~To comply with the requirements of a habitat management plan prepared pursuant to WCC 16.16.750.~~
4. ~~To protect fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance, provide adequate recruitment for large woody debris, maintain adequate streamwater temperatures, or maintain in-stream water conditions.~~

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5. ~~€~~To compensate for degraded vegetation communities, Clean Water Act 303(d) impaired water bodies, or steep slopes adjacent to the habitat conservation area.
6. ~~€~~To maintain areas for channel migration and/or frequently flooded areas.
7. ~~€~~To protect adjacent or downstream gradient areas from erosion, landslides, or other hazards.
8. ~~€~~To protect streamwaters from high intensity adjacent land uses.

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect habitat functions. Increasing the buffer widths will only be done where necessary to preserve the structure, function and value of the habitat.

B. Buffer Width Averaging.

1. Buffer width averaging allows limited reductions of buffer width in specified locations while requiring increases in others. Averaging of required buffer widths shall be allowed only where the applicant demonstrates that all of the following criteria are met:
 - a. The buffer has not been reduced pursuant to subsection (C). Buffer averaging is not allowed if the buffer has been reduced.
 - b. Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available due to site constraints caused by existing physical characteristics such as slope, soils, or vegetation; and
 - c. The habitat contains variations in sensitivity due to existing physical characteristics; and
 - d. Averaging will not adversely impact the functions and values of fish and wildlife conservation areas; and
 - e. Averaging meets performance standards for protecting fish species; and
 - f. The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging; and
 - g. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30% percent; and
 - h. The buffer width shall not be reduced below 75% of the standard buffer width.
2. In the specified locations where a buffer has been reduced to achieve averaging, the Director may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.

C. Buffer Width Reduction.

1. The Director shall have the authority to reduce buffer widths on a case-by-case basis; provided, that the general standards for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied, and when the applicant demonstrates to the satisfaction of the Director that all of the following criteria are met:
 - a. The buffer has not been averaged pursuant to subsection (B). Buffer reduction is not allowed if the buffer has been averaged.
 - b. The applicant demonstrates buffer averaging is not feasible.
 - c. The buffer shall not be reduced to less than 75% percent of the standard buffer specified in ~~Table 4~~Table 3.

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- d. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30% percent (see Article 3 of this chapter).
- e. The applicant has demonstrated application of mitigation sequencing as required in WCC 16.16.260 (General Mitigation Requirements).
- f. To minimize impacts and provide equivalent functions and values as required by this section, the Director may require any or all of the following:
 - i. The use of alternative on-site wastewater systems in order to minimize site clearing, where appropriate;
 - ii. Using low impact development (LID) and LID best management practices where appropriate;
 - ~~In order to offset habitat loss from buffer reduction, retaining existing native vegetation on other portions of the site equal to no more than the area impacted.~~
- g. All buffer reduction impacts are mitigated and result in equal or greater protection of the HCA functions and values. This includes enhancement of existing degraded buffer area and provide mitigation for the disturbed buffer area.

Commented [P/C92]: P/C motion to strike. Carries 7-1-1

- 2. In all circumstances when the buffer between the area of reduction and the habitat conservation area is degraded, this degraded portion of the buffer shall include replanting with native vegetation in order to achieve a dense vegetative community.

Commented [P/C93]: P/C motion to approve. Carries 9-0

- D. Buffer Width Variance.** Standard buffer widths may be reduced by more than 25% through a variance pursuant to WCC 16.16.273 (Variances); provided, that buffer averaging beyond that allowed in subsection (B) is prohibited.
- E.** ~~The technical administrator shall have the authority to reduce buffer widths on a case-by-case basis; provided, that the general standards for alternatives analysis and mitigation sequencing per WCC 16.16.260 have been applied, and when the applicant demonstrates to the satisfaction of the technical administrator that all of the following criteria are met:~~
- ~~1. The buffer reduction shall not adversely affect the habitat functions and values of the adjacent habitat conservation area or other critical area.~~
 - ~~2. The buffer shall not be reduced to less than 75 percent of the standard buffer specified in Table 3.~~
 - ~~3. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30 percent (see Article 3 of this chapter).~~
 - ~~4. The area that has been reduced shall be mitigated at least at a ratio of 1:1, on an area basis.~~
- F.** ~~The technical administrator shall have the authority to average buffer widths on a case-by-case basis; provided, that the general standards for avoidance and minimization per WCC 16.16.260(A)(1)(a) and (b) shall apply, and when the applicant demonstrates to the satisfaction of the technical administrator that all of the following criteria are met:~~
- ~~1. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer and all increases in buffer dimension are parallel to the habitat conservation area.~~

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~~2. The buffer averaging does not reduce the functions or values of the habitat conservation area or riparian habitat, or the buffer averaging, in conjunction with vegetation enhancement, increases the habitat function.~~

~~3. The buffer averaging is necessary due to site constraints caused by existing physical characteristics such as slope, soils, or vegetation.~~

~~4. The buffer width is not reduced to less than 75 percent of the standard width specified in Table 3.~~

~~5.1. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed 30 percent.~~

~~6. Where a buffer has been reduced, the technical administrator may require enhancement to the remaining buffer to ensure no net loss of ecologic function, services, or value.~~

~~G. **Buffer Increases.** The technical administrator shall have the authority to increase the width of a habitat conservation area buffer on a case-by-case basis when there is clear evidence that such increase is necessary to achieve any of the following:~~

~~1. Comply with the requirements of a habitat management plan prepared pursuant to WCC 16.16.750.~~

~~2.1. Protect fish and wildlife habitat, maintain water quality, ensure adequate flow conveyance, provide adequate recruitment for large woody debris, maintain adequate stream temperatures, or maintain in-stream conditions.~~

~~3.1. Compensate for degraded vegetation communities, Clean Water Act 303(d) impaired water bodies, or steep slopes adjacent to the habitat conservation area.~~

~~4.1. Maintain areas for channel migration and/or frequently flooded areas.~~

~~5.1. Protect adjacent or downstream areas from erosion, landslides, or other hazards.~~

~~6.1. Protect streams from high intensity adjacent land uses.~~

16.16.750 Habitat Conservation Areas – Review and Reporting Requirements.

A. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration is more likely than not to contain habitat conservation areas or buffers, or could adversely affect a habitat area or buffer, the ~~technical administrator~~ Director shall require a site evaluation (field investigation) by a qualified professional or other measures to determine whether or not the species or habitat is present. If no habitat conservation areas are present, then review will be considered complete. If the site evaluation determines that the species or habitat is present, the ~~technical administrator~~ Director shall require a critical areas assessment report or habitat management plan (HMP), except; provided, that

1. No report or evaluation shall be required for developments outside of buffers within the upland portions of shellfish conservation areas.
2. The ~~technical administrator~~ Director shall have the authority to waive the report requirement when he/she determines that the project is a single-family building permit development that involves less than one-half acre of clearing and/or vegetation removal and will not directly disturb the species, or specific areas or habitat features that comprise the habitat conservation

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area (nest trees, breeding sites, etc.) as indicated by a site plan or scaled drawing of the proposed development.

- B. In addition to the reporting requirements of WCC [16.16.255](#), the habitat conservation area assessment report/HMP shall describe the characteristics of the subject property and adjacent areas, including condition, quality, function, and values of the habitat conservation area at a scale appropriate to the function being evaluated (see WAC [365-196-830\(6\)](#)). The assessment shall include determination of appropriate buffers as set forth in WCC [16.16.740](#). The assessment shall also include field identification and/or delineation of habitat areas, analysis of historical aerial photos, and review of public records as necessary to determine potential effects of the development action on critical areas. Assessment reports shall include the following site- and proposal-related information unless the ~~technical administrator~~ Director determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development:
1. A map drawn to a common scale or survey showing the following information:
 - a. Topographic, hydrologic, and vegetative features.
 - b. The location and description of wildlife and habitat features, and all critical areas on or within 200 feet of the site, or farther, given the scale appropriate to the function being evaluated.
 - c. Proposed development activity.
 - d. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.
 - e. Surrounding land uses and zoning (to ensure appropriate buffer).
 2. An analysis, including an analysis of cumulative impacts, of how the proposed development activities will affect the fish and wildlife habitat conservation area and/or buffer, including the area of direct disturbance; effects of stormwater management; effects on any 303(d) impaired water bodies; proposed alteration to surface or subsurface hydrology; natural drainage or infiltration patterns; clearing and grading impact; temporary construction impacts; effects of increased intensity of use (including noise, light, human intrusion, etc.).
 3. Provisions to reduce or eliminate adverse impacts of the proposed development activities on the functions and values of the habitat conservation area including, but not limited to:
 - b. Buffering;
 - c. Clustering of development;
 - d. Retention of native vegetation;
 - e. Access limitations;
 - f. Seasonal restrictions on construction activities in accordance with the guidelines developed by the Washington State Department of Fish and Wildlife, the U.S. Army Corps of Engineers, the salmonid recovery plan and/or other agency or tribe with expertise and jurisdiction over the subject species/habitat; and
 - g. Other appropriate and proven low impact development techniques.
 4. Management recommendations developed by WDFW through its Priority Habitat and Species program.

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5. Additional information including, but not limited to, direct observations of species use or detailed physical and biological characteristics both on and off site at an appropriate scale (see WAC [365-196-830\(6\)](#)). The assessment of off-site conditions shall be based on available information and shall not require accessing off-site properties.
6. Applicants near a bald eagle nest shall complete the U.S. Fish and Wildlife Service (USFWS) self-assessment (<https://www.fws.gov/pacific/eagle>) to determine whether a USFWS bald eagle permit is needed, and if so, apply for one. Development activities near bald eagle habitat shall be carried out consistent with the National Bald Eagle Guidelines.
- C. All habitat management plans ~~shall~~ **should** be prepared in consultation with the State Department of Fish and Wildlife and/or other federal, state, local or tribal resource agencies with jurisdiction and expertise in the subject species/habitat, **and shall contain a review of the most current best available science applicable to the subject species/habitat.**
- D. **For single-family building permits, the applicant may hire a qualified professional to prepare the assessment report or may request that the County assess the regulated HCA(s) and buffers and determine the impacts associated with the project, subject to the following:** ~~At the request of the applicant, the County may gather the required information in this section for applicants seeking to develop a single-family home; provided, that:~~
 1. Availability of County staff shall be at the discretion of the ~~technical administrator~~ **Director** and subject to workload and scheduling constraints.
 2. Fees for County staff services shall be in accordance with the Unified Fee Schedule.

16.16.760 Habitat Conservation Areas – Mitigation Standards.

Activities that adversely affect habitat conservation areas and/or their buffers as determined by the ~~technical administrator~~ **Director** shall include mitigation sufficient to achieve no net loss of habitat functions and values **or an ecological lift** in accordance with WCC [16.16.260](#) and this section.

- ~~A. In determining the extent and type of mitigation required, the technical administrator may consider all of the following:~~
- ~~1. The ecological processes that affect and influence critical area structure and function within the watershed or sub-basin;~~
 - ~~2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;~~
 - ~~3. Observed or predicted trends regarding the gains or losses of specific habitats or species in the watershed, in light of natural and human processes;~~
 - ~~4. The likely success of the proposed mitigation measures;~~
 - ~~5. Effects of the mitigation actions on neighboring properties; and~~
 - ~~6. Opportunities to implement restoration actions formally identified by an adopted shoreline restoration plan, watershed planning document prepared and adopted pursuant to Chapter [90.82 RCW](#), a salmonid recovery plan or project that has been identified on the watershed management board habitat project list or by the Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.~~

Commented [PDS94]: An approved habitat management plan may require a lift to comply.

Commented [CES95]: Moved to 16.16.260 General Mitigation Requirements

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- ~~B. The following additional mitigation standards shall apply:~~
- ~~B. Mitigation for alterations to habitat areas shall achieve equivalent or greater biologic functions, and shall provide similar functions to those that are lost or altered.~~
- ~~C.A. Mitigation in the form of habitat restoration or enhancement is required when a habitat is altered permanently as a result of an approved project. Alterations shall not result in net loss of habitat.~~
- ~~1. Where feasible, mitigation projects shall be completed prior to activities that will disturb habitat conservation areas. In all other cases, mitigation shall be completed as quickly as possible following disturbance and prior to use or occupancy of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fish, wildlife and flora; provided, that the technical administrator may adjust the timing requirements to allow grading, planting, and other activities to occur during the appropriate season(s).~~
- ~~2. Mitigation shall be provided on site whenever feasible. Off-site mitigation in a location that will provide a greater ecological benefit to the species and/or habitats affected and have a greater likelihood of success may be accepted at the discretion of the technical administrator. Mitigation shall occur as close to the impact site as possible. As mitigation is moved further away from the impacted habitat, the technical administrator may increase the amount of mitigation required. If off-site mitigation is proposed, the applicant must demonstrate through an alternatives/mitigation sequencing analysis (WCC 16.16.260) that the mitigation will have greater ecological benefit.~~
- ~~D.B. All mitigation sites shall have buffers consistent with the buffer requirements established in WCC 16.16.740; provided, that the technical administrator Director shall have the authority to approve a smaller buffer when existing site constraints (such as a road) prohibit attainment of the standard buffer. Mitigation actions shall not create buffer encumbrances on adjoining properties.~~
- ~~3. The technical administrator shall require annual monitoring of mitigation activities and submittal of annual monitoring reports in accordance with WCC 16.16.260(C) to ensure and document that the goals and objectives of the mitigation are met. Monitoring shall be for a period of up to five years.~~
- ~~E.C. Mitigation projects involving in-stream water work including, but not limited to, installation of large woody debris shall be designed to ensure there are no adverse hydraulic effects on upstream-up- or downstream-downgradient properties. The County Public Works River and Flood Division shall review any such mitigation projects for compliance with this provision.~~
- ~~D. As applicable, apply mitigation standards of the Army Corps of Engineer Regional General Permit 6 for inland marine waters as amended February 12, 2020.~~
- ~~F.E. On a case-by case basis, the technical administrator shall have the authority to require mitigation for permanent impacts to a habitat conservation areas or their buffers, mitigation shall be provided at the following ratios, unless the Director approves a habitat management plan with greater ratios:~~
- ~~1. Where the mitigation is in place and functional before the impacts occur (i.e., advanced mitigation), at a ratio determined by the functions, values, and goals of an advanced mitigation plan, at a 1:1 ratio (area or function).~~
 - ~~2. Where the mitigation is in place within 1 year of the impact occurring, at a 1:1 ratio (area or function). Where the mitigation is placed after the impact occurs, at a 1.25:1 ratio (area or function); and~~

Commented [CES96]: Moved to 16.16.260 General Mitigation Requirements

Commented [CES97]: Now covered by 16.16.260(D)

Commented [CES98]: Covered by 16.16.260(I)(2).

Commented [CES99]: Added for consistency with RGP-6

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- ~~2.3.~~ Where the mitigation is placed after 1 year of the impact occurring, at a 1.25:1 ratio (area or function).
- 4. For retroactive permits the Director may require the ratio shall be up to double the ratio in subsection (3) above.

Commented [P/C100]: P/C motion to amend as shown. Passes 7-0

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Article 8. Conservation Program on Agriculture Lands (CPAL)

16.16.800 Purpose.

- A. The well-being of farms and ranches in Whatcom County depends in part on good quality soil, water, air, and other natural resources. Agricultural operations that incorporate protection of the environment, including critical areas and their buffers as defined by this chapter, are essential to achieving this goal.
- B. The purpose of the CPAL program is to allow farmers practicing ongoing agricultural activities that may affect critical areas, their functions and values, and/or their buffers to do so either (1) in accordance with the standard requirements of this chapter or (2) pursuant to a conservation farm plan voluntarily prepared and approved pursuant to this article. If farmers and ranchers are willing to enter into the CPAL program, and demonstrate no impacts to critical areas through the assessment, then flexibility in these provisions may be extended to them. If not, then they must observe the standard provisions of this chapter.
- C. This program shall be subject to continued monitoring and adaptive management to ensure that it meets the purpose and intent of this chapter.

Commented [Co/C101]: Amended pursuant to Resolution 2022-027

16.16.810 Resource Concerns.

Agricultural operations, including the keeping of horses and other large animals, have the potential to create adverse impacts to critical areas. It is the County's policy to minimize such impacts.

- A. Nutrient Pollution of Water. Animal waste contains nutrients (nitrogen and phosphorous). With each rain, these wastes can wash off the land and into the nearest stream, lake, or wetland. In surface water, phosphorous and nitrogen fertilize aquatic plants and weeds. As the plants and weeds proliferate and decay, the dissolved oxygen that fish need to survive is depleted. Nitrogen in the form of nitrate is easily dissolved in and carried with rainfall through our permeable soils to groundwater. Nitrate concentrations exceeding the maximum contaminate level for safe drinking water are found in many wells of Whatcom County. These can present a significant human health risk, particularly to the very old and young.
- B. Pathogen Pollution of Water. Manure contains bacteria and other pathogens. These can make the water unfit for drinking without treatment or shellfish unfit for human consumption. They can also make water unsafe for human contact and recreational sports such as fishing, swimming or water skiing. Both surface and groundwater are vulnerable to this type of pollution.
- C. Sediment Pollution to Surface Water. Regardless of the amount of supplemental feed provided, large animals will continue grazing until all palatable vegetation is gone. On especially small lots (one or two acres), the animals that are allowed free and continuous access to vegetation quickly graze-out and trample pasture grasses and forbs. These areas are then susceptible to invasion by weeds, including noxious weeds, and brush. The resulting bare ground is subject to erosion from wind and water. Lands that lack adequate vegetation are subject to erosion, and contaminated runoff from these areas can enter water bodies and wetlands and interfere with fish and wildlife habitat.

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D. Degradation of Riparian Areas. The term “riparian” is defined in Article 9 of this chapter and includes the areas adjacent to streams, lakes, marine shorelines and other waters. A healthy riparian area is essential to protecting fish and wildlife, including salmon and shellfish. Dense riparian vegetation along the water’s edge will slow and protect against flood flows; provide infiltration and filtering of pollutants; secure food and cover for fish, birds and wildlife; and keep water cooler in summer. If it occurs, uncontrolled grazing has the potential to remove important riparian vegetation.

16.16.820 Classification and Applicability.

- A. A conservation farm plan identifies the farming or ranching activities and the practice(s) necessary to avoid their potential negative impacts (resource concerns). Practice selection depends upon the types of livestock raised and crops grown. Based upon the type and intensity of the operation, some generalizations can be made as to the resource concerns and remedies that apply.
- B. Some operations present relatively low risks to critical areas because of their benign nature, timing, frequency, or location. For these operations, the resource concerns and remedies are relatively easy to identify and implement. These are described in more detail as Type 1 agricultural operations subject to standardized conservation farm plans in WCC [16.16.830](#) and [16.16.840\(A\)](#).
- C. Where the potential negative impacts to critical areas are moderate or high, solutions are more difficult to formulate and implement. In those circumstances, a more rigorous planning process is required. In such cases, a formal written plan shall provide the desired environmental protection. These types of operations are described as agricultural operations requiring custom conservation farm plans in WCC [16.16.830](#) and [16.16.840\(B\)](#) or (C).

D: Any agricultural activity that an assessment by the Conservation District or a Conservation District-approved third party determines has no adverse impacts to critical areas, based on number/type of animals, type of soils, productivity of the pasture, among other factors, or already-implemented best management practices, shall not be required to have a farm plan and shall be deemed to be in compliance with the provisions of CPAL and this Chapter.

D-E: Agricultural activities that qualify for coverage include:

- 1. Type 1 Operations.
 - a. To qualify as a Type 1 operation, a farm shall not exceed one animal unit per one acre of grazable pasture. These operations present a low potential risk to critical area degradation including ground/surface water contamination because the animals kept generate fewer nutrients than can be used by the crops grown there.
 - b. Critical areas on Type 1 operations are protected against the potential negative impacts of agricultural activities through the implementation of an approved standard conservation farm plan prepared in accordance with WCC [16.16.830](#) and [16.16.840\(A\)](#).
 - c. Those operators qualifying for a Type 1 (standard) conservation farm plan may elect to do a Type 2 (custom) conservation farm plan if they want to use “Prescribed Grazing” (NRCS Practice 528A) to manage vegetative filter strips installed alongside critical areas.

Commented [Co/C102]: Amended pursuant to Resolution 2022-027

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2. Type 2 Operations.
 - a. Type 2 operations are farms that include, but are not limited to, those that exceed one animal unit per one acre of grazable pasture; farms that have orchards, vineyards, small-fruit field or row crops; and drainage improvement districts. These operations present a potential moderate risk to critical area degradation, including ground or surface water contamination, because the nutrients applied from manure or commercial fertilizers may exceed that which can be easily used by the crops grown there without careful planning and management. The agricultural activities are also likely to be much more intense than Type 1 operations, posing greater potential risks to other critical areas.
 - b. Critical areas on Type 2 operations are protected against the potential negative impacts of agricultural activities through the implementation of an approved custom conservation farm plan prepared in accordance with WCC [16.16.830](#) and [16.16.840\(B\)](#).
3. Type 3 Operations.
 - a. Type 3 operations include dairies and animal feeding operations/concentrated animal feeding operations (AFO/CAFOs). These operations are already regulated by state and federal governments (see Chapter [90.64](#) RCW et seq.; [40](#) CFR [122.23](#) and [40](#) CFR Part 412).
 - b. Critical areas are protected against the potential negative impacts of Type 3 agricultural activities through the implementation of an approved custom conservation farm plan prepared in accordance with WCC [16.16.830](#) and [16.16.840\(C\)](#).

16.16.830 Conservation Farm Plans – General Standards.

- A. All conservation farm plans shall include all practicable measures, including best management practices, to maintain existing critical area functions and values.
- B. A conservation farm plan shall not recommend nor authorize:
 1. Filling, draining, grading, or clearing activities within critical areas or buffers:
 - a. Except on ongoing agricultural land where such activities are a demonstrated essential part of the ongoing agricultural use or part of routine maintenance; and
 - b. When it does not expand the boundaries of the ongoing agricultural use; and
 - c. The appropriate permits for doing so have been obtained.
 2. The construction of new structures. New structures shall be constructed in compliance with the applicable standard requirements of this chapter and the Whatcom County Code.
 3. New or expanded drainage systems. Routine maintenance of existing drainage systems may be allowed, but only in compliance with the Washington State Hydraulic Code (Chapter [220-660](#) WAC) and the best management practices found in the “Drainage Management Guide for Whatcom County Drainage Improvement Districts.”
 4. The conversion of land to agricultural use.
- C. Other plans prepared for compliance with state or federal regulations (e.g., nutrient management plans), or to obtain an accredited private third-party certification (e.g., GLOBALG.A.P.), or similar plans may be used as part of or in lieu of a conservation farm plan if the ~~technical administrator~~ [Director](#) determines they adequately address the requirements of this title.

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16.16.840 Conservation Farm Plan Requirements.

- A. **Type 1 (Standard) Conservation Farm Plans.** Owners of Type 1 operations have limited options to control animal waste because their operations are small. The required conservation farm plan can be prepared by the landowner and include a simple map of the property, a standard checklist designed to protect water quality, and the following additional components:
1. System Siting and Design. Barns, corrals, paddocks, or lots are to be sited to avoid runoff directly into critical areas.
 - a. Where structures exist in critical areas or buffers and cannot be relocated, corrective measures must be taken if necessary to avoid runoff of pollutants and bacteria to critical areas.
 - b. Along regulated streams², lakes, ponds, or wetlands:
 - i. Where trees and shrubs already exist, they shall be retained and managed to preserve the existing functions of the buffer pursuant to the USDA Natural Resource Conservation Service's (NRCS) Conservation Practice 391, "Riparian Forest Buffer."
 - ii. Where trees and shrubs are absent, a strip or area of herbaceous vegetation shall be established and maintained between barns, corrals, paddocks, and grazing areas pursuant to the NRCS Conservation Practice 393, "Vegetative Filter Strip," and USDA's buffer width design tool for surface runoff found in the publication "Conservation Buffers Design Guidelines for Buffers, Corridors, and Greenways." Livestock shall be excluded from the vegetative filter strips established to protect critical areas pursuant to NRCS Practice 472, "Access Control."
 2. Manure Collection, Storage, and Use. Manure and soiled bedding from stalls and paddocks are to be removed and are to be placed in a storage facility protected from rainfall so that runoff does not carry pollutants and bacteria to critical areas. Manure is to be used as cropland fertilizer. The rate and timing of manure application shall not exceed crop requirements or cause surface or groundwater water quality degradation. It is to be applied in a manner to avoid runoff of nutrients and bacteria to critical areas.
 3. Pasture Management. Pastures are to be established and managed pursuant to "Prescribed Grazing" (NRCS Practice 528A).
 4. Exercise or Barn Lots. These normally bare areas must be stabilized and managed to prevent erosion and sediment movement to critical areas. A diversion terrace shall be installed, where necessary, to hinder flow to and across the lot or paddock. Runoff from the lot must be treated via the vegetative filter strip or riparian buffer as described in subsection (A)(1) of this section to avoid contaminants reaching critical areas.
 5. Existing native vegetation within critical areas and their buffers shall be retained.
 6. Chemical additions, including fungicides, herbicides, and pesticides, shall not be applied within 50 feet of standing or flowing water except by a licensed applicator.

² Note that ditched channels may or may not meet the definition of a stream. See Article 9, Definitions.

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7. Fertilizers Other Than Manure. The rate and timing of fertilizer application shall not exceed crop requirements, or cause surface or groundwater quality degradation.
- B. **Type 2 (Custom) Conservation Farm Plans.** In addition to the elements of a Type 1 conservation farm plan, Type 2 plans must address the following:
1. In developing the elements that an approved conservation farm plan must contain, the ~~technical administrator~~ **Director** may authorize the use of the methods, technologies, and best management practices of the Natural Resources Conservation Service. Other standards may be used when such alternatives have been developed by a land grant college or a professional engineer with expertise in the area of farm conservation planning.
 2. Implementation of the conservation farm plan must protect existing values and functions of critical areas. Benchmark conditions are to be captured and described in the plan. This may consist of photo documentation, written reports or both.
 3. Wetlands shall be conserved pursuant to the provisions of Title 180 – National Food Security Act Manual (see <http://www.nrcs.usda.gov/programs/wetlands/index.html>).
 4. Custom conservation farm plans need not address the application, mixing, and/or loading of insecticides, fungicides, rodenticides, and pesticides; provided, that such activities are carried out in accordance with the Washington State Department of Agriculture and all other applicable regulations including, but not limited to: the provisions of Chapter [90.48](#) RCW, the Clean Water Act, United States Code (USC) Section 136 et seq. (Federal Insecticide, Fungicide, and Rodenticide Act), Chapter [15.58](#)RCW (Pesticide Control Act), and Chapter [17.21](#) RCW (Pesticide Application Act).
 5. Where potential significant impacts to critical areas are identified through a risk assessment, then plans shall be prepared to prevent and/or mitigate same by:
 - a. A planning advisor; or
 - b. Through the USDA Natural Resources Conservation Service; or
 - c. The Whatcom conservation district; or
 - d. An eligible farmer or rancher, who participates in this program by:
 - i. Attending a County-sponsored or approved workshop, and
 - ii. Conducting a risk assessment of their farm or ranch, alone or with a planning advisor's assistance, and
 - iii. Developing a plan to prevent and/or mitigate any identified risks, and
 - iv. Having the plan approved pursuant to WCC [16.16.290](#).

One resource for guidance is "Tips on Land and Water Management for Small Farm and Livestock Owners in Whatcom County, Washington." It can be obtained from the Whatcom conservation district's website: <http://www.whatcomcd.org/small-farm>. Other guidance may also be used, provided it is consistent with the best available science criteria in WAC [365-195-900](#) through [365-195-925](#).
- C. **Type 3 (Custom) Conservation Farm Plans.** Conservation farm plans meeting the criteria of state and federal laws pertaining to AFO/CAFOs (see Chapter [90.64](#) RCW et seq., [40](#) CFR [122.23](#) and [40](#) CFR Part 412) fulfill the requirements of this chapter. (See U.S. EPA "Final

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Guidance – Managing Manure Guidance for Concentrated Animal Feeding Operations (CAFOs)”
at: <http://epa.gov/guide/cafo/>.

16.16.850 Preparation and Approval of Conservation Farm Plans.

Conservation farm plans shall be subject to County review, approval, monitoring, adaptive management, and enforcement in accordance with the following:

- A. The ~~technical administrator~~ Director shall review and approve all conservation farm plans.
- B. Table ~~5~~ Table 4 shows which entities may prepare and/or provide technical assistance and recommendations in preparing which type of conservation farm plan:

Table 5. Who May Prepare Conservation Farm Plans

Who May Prepare	Type 1 Operations	Type 2 and 3 Operations
The farm operator	X	
Whatcom County planning and development services	X	X
A qualified consultant	X	
A watershed improvement district (for a farm or ranch that is within its boundaries)	X	
The Whatcom conservation district	X	X
A planning advisor	X	X

- C. The farm operator can seek conservation farm plan approval directly through the department of planning and development services, or grant permission to any of the entities listed in Table ~~5~~ Table 4 to prepare and submit it. If the conservation farm plan is prepared by any entity listed in Table ~~5~~ Table 4 other than the Whatcom conservation district, the Department will conduct a site visit prior to plan approval in order to assess critical areas and sufficiency of the plan to protect water quality and critical areas.

16.16.860 Monitoring and Compliance.

- A. The ~~technical administrator~~ Director and/or the farm operator shall periodically monitor plan implementation and compliance beginning one year after plan approval and every two years thereafter, through the life of the plan, or more frequently at the ~~technical administrator~~ Director's discretion. The monitoring may include periodic site inspections, self-assessment by the farm operator, or other appropriate actions. For a time period of up to every five years, self-certification is allowed for Type 1 conservation farm plans, or if the plan is prepared by the Whatcom conservation district or planning advisor and approved by the department. If a sufficient self-certification monitoring report (must include photos and implemented best management practices) is not submitted within 30 days of request, County staff may make a site visit. Site visits will be coordinated with the landowner/farm operator. Prior to carrying out a site inspection, the ~~technical administrator~~ Director shall provide reasonable notice to the owner or manager of the property as

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to the purpose or need for the entry, receive confirmation, and afford at least two weeks in selecting a date and time for the visit. At the landowner's/farm operator's discretion, staff may be accompanied by the planning advisor or Whatcom conservation district planner.

- B. Where the planning advisor has reason to believe that there is an imminent threat to public health or significant pollution with major consequences occurring as a result of the agricultural operations, the planning advisor will advise the agricultural operator of his or her concerns in writing. While the planning advisor may provide suggestions for resolving the issue, the responsibility for compliance and resolution of issues rests solely with the farm operator. If compliance issues are not promptly resolved, the planning advisor shall promptly withdraw from representing the farm operator, notify the ~~technical administrator~~ Director of such, and may report such situations to the ~~technical administrator~~ Director for subsequent action and enforcement in accordance with WCC [16.16.285](#).
- C. The farm practices described in an approved conservation farm plan will be deemed to be in compliance with this chapter so long as the landowner/farm operator is properly and fully implementing the practices and responding to possible adaptive management requirements according to the timeline in the plan. This will be verified through conservation farm plan implementation monitoring.
- D. Agricultural operations shall cease to be in compliance with this article, and a new or revised conservation farm plan will be required, when the ~~technical administrator~~ Director determines that any of the following has occurred:
1. When a farm or ranch operator fails to properly and fully implement and maintain their conservation farm plan.
 2. When implementation of the conservation farm plan fails to protect critical areas. If so, a new or revised conservation farm plan shall be required to protect the values and functions of critical areas at the benchmark condition.
 3. When substantial changes in the agricultural activities of the farm or livestock operation have occurred that render the current conservation farm plan ineffective. Substantial changes that render a conservation farm plan ineffective are those that:
 - a. Degrade baseline critical area conditions for riparian and wetland areas that existed when the plan was approved; or
 - b. Result either in a direct discharge or substantial potential discharge of pollution to surface or ground water; or
 - c. The type of agricultural practices change from Type 1 to Type 2, Type 2 to Type 3, or Type 1 to Type 3 operations.
 4. When the increase in livestock or decrease in land base or nutrient export results in the farm being out of balance between the nutrients generated and to be used by growing crops.
 5. When a new or revised conservation farm plan is required, and the farm operator has been so advised in writing and a reasonable amount of time has passed without significant progress being made to develop said plan. Refusal or inability to provide a new plan within a reasonable period of time shall be sufficient grounds to revoke the approved conservation farm plan and require compliance with the standard provisions of this chapter.

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- 6. When an owner or manager denies the ~~technical administrator~~ Director reasonable access to the property for technical assistance, monitoring, or compliance purposes, then the ~~technical administrator~~ Director shall document such refusal of access and notify the owner of his/her findings. The owner shall be given an opportunity to respond in writing to the findings of the ~~technical administrator~~ Director, propose a prompt alternative access schedule, and to state any other issues that need to be addressed. Refusal or inability to comply with an approved conservation farm plan within a reasonable period of time shall be sufficient grounds to revoke said plan and require compliance with the standard provisions of this chapter.
- E. With one exception, Whatcom County will not use conservation farm plans (standard or custom) as an admission by the landowner that s/he has violated this chapter. Disclosure of current farm practices, structures on conservation farm plan documents, or observations made through monitoring inspections or conservation farm plan approval, will not be used to bring other enforcement actions against a farm operator. The exception is that when matters of major life, health, environment, or safety issues, as determined by the ~~technical administrator~~ Director, are observed and the landowner fails to immediately and permanently remediate, then the observations may be used in an enforcement action.

16.16.870 Limited Public Disclosure.

- A. Conservation farm plans will not be subject to public disclosure unless required by law or a court of competent jurisdiction;
- B. Provided, that the County will collect summary information related to the general location of a farming enterprise, the nature of the farming activity, and the specific best management practices to be implemented during the conservation farm plan review process. The summary information shall be provided by the farm operator or his/her designee and shall be used to document the basis for the County's approval of the plan.
- ~~C.~~ The County will provide to the public via its website information regarding which farms have approved conservation farm plans and the date of their approval.
- ~~D.C.~~ Upon request, the County may provide a sample conservation farm plan, exclusive of site- or property-specific information, to give general guidance on the development of a conservation farm plan.

Commented [Co/C103]: Amended pursuant to Resolution 2022-027

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Article 9. Definitions

16.16.900 Definitions.

The terms used throughout this program shall be defined and interpreted as indicated below. When consistent with the context, words used in the present tense shall include the future; the singular shall include the plural, and the plural the singular. Any words not defined herein shall be defined pursuant to Titles 20 (Zoning), 22 (Land Use and Development), 23 (Shoreline Management Program), or their common meanings when not defined in code.

“Accessory structure” means a structure that is incidental and subordinate in intensity to a primary use and located on the same lot as the primary use. Barns, garages, storage sheds, and similar appurtenances are examples. Structures that share a common wall with a primary residential structure shall be considered an extension of the primary structure, rather than an accessory structure.

“Active alluvial fan” means a portion or all of a fan that has experienced channel changes, erosion, or deposition. Active fans can be identified based on determination by field geomorphic and topographic evidence, and by historical accounts.

“Activity” means human activity associated with the use of land or resources.

“Adaptive management” means using scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. Management policy may be adapted based on a periodic review of new information.

“Adequate water supply” means a water supply that meets requirements specified in the Whatcom County drinking water ordinance (WCC Chapter 24.11-WCC).

“AFO” is an acronym for animal feeding operation.

“Agricultural activities” means those activities directly pertaining to the production of crops or livestock including, but not limited to: cultivation; harvest; grazing; animal waste storage and disposal; fertilization; the operation and maintenance of farm and stock ponds or drainage ditches, irrigation systems, and canals; and normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. The construction of new structures or activities that bring a new, non-ongoing agricultural area into agricultural use are not considered agricultural activities.

“Agricultural land” is land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, or animal products, or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, or livestock, and/or lands that have been designated as capable of producing food and fiber, which have not been developed for urban density housing, business, or other uses incompatible with agricultural activity.

Commented [AP104]: Added for consistency with revisions made to the SMP Bulk Provisions Table per Scoping Document, Item #17d.

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“Alluvial fan” means a fan-shaped deposit of sediment and organic debris formed where a stream flows or has flowed out of a mountainous upland onto a level plain or valley floor because of a sudden change in sediment transport capacity (i.e., significant change in slope or confinement).

“Alluvium” is a general term for clay, silt, sand, gravel, or similar other unconsolidated detrital materials, deposited during comparatively recent geologic time by a stream or other body of running water, as a sorted or semi-sorted sediment in the bed of the stream or on its floodplain or delta.

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

“Anadromous fish” means fish species that spend most of their lifecycle in salt water, but return to freshwater to reproduce.

“Animal unit” means 1,000 pounds of livestock live weight.

“Aquifer” means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs (Chapter [173-160](#) WAC).

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

“Aquifer vulnerability” is the combined effect of susceptibility to contamination and the presence of potential contaminants.

“Bankfull width” means:

1. For streams – The measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth. In cases where multiple channels exist, bankfull width is the sum of the individual channel widths along the cross section (see Forest Practices Board Manual, Section 2).
2. For lakes, ponds, and impoundments – Line of mean high water.
3. For tidal water – Line of mean high tide.
4. For periodically inundated areas of associated wetlands – Line of periodic inundation, which will be found by examining the edge of inundation to ascertain 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.

“Base flood” is a flood event having a ~~one percent~~1% chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on flood insurance map(s) always include the letters A (zone subject to flooding during a 100-year flood, but less so

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than V zones) or V (zone subject to the highest flows, wave action, and erosion during a 100-year flood).

“Bedrock” is a general term for rock, typically hard, consolidated geologic material that underlies soil or other unconsolidated, superficial material or is exposed at the surface.

“Best available science” means information from research, inventory, monitoring, surveys, modeling, synthesis, expert opinion, and assessment that is used to designate, protect, or restore critical areas. As defined by WAC [365-195-900](#) through [365-195-925](#), best available science is derived from a process that includes peer-reviewed literature, standard methods, logical conclusions and reasonable inferences, quantitative analysis, and documented references to produce reliable information.

“Best management practices” means conservation practices or systems of practices and management measures that:

1. Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and sediment;
2. Minimize adverse impacts to surface water and groundwater flow, circulation patterns, and to the chemical, physical, and biological characteristics of waters, wetlands, and other fish and wildlife habitat;
3. Control plant site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material.

“Buffer (the buffer zone)” means the area adjacent to the outer boundaries of critical areas including wetlands; habitat conservation areas such as streams, lakes, and marine shorelines; and/or landslide hazard areas that separates and protects critical areas from adverse impacts associated with adjacent land uses.

“CAFO” is an acronym for concentrated animal feeding operation.

“CFR” is an acronym for Code of Federal Regulations.

“Channel migration zone (CMZ)” means the area along a river or stream within which the channel can reasonably be expected to migrate over time as a result of normally occurring processes. It encompasses that area of current and historic lateral stream channel movement that is subject to erosion, bank destabilization, rapid stream incision, and/or channel shifting, as well as adjacent areas that are susceptible to channel erosion. There are three components of the channel migration zone: (1) the historical migration zone (HMZ) – the collective area the channel occupied in the historical record; (2) the avulsion hazard zone (AHZ) – the area not included in the HMZ that is at risk of avulsion over the timeline of the CMZ; and (3) the erosion hazard area (EHA) – the area not included in the HMZ or the AHZ that is at risk of bank erosion from stream flow or mass wasting over the timeline of the CMZ. The channel migration zone may not include the area behind a lawfully constructed flood protection device. Channel migration zones shall be identified in accordance with guidelines established by the Washington State Department of Ecology.

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“Clearing” means destruction of vegetation by manual, mechanical, or chemical methods and that may result in exposed soils. Clearing includes, but is not limited to, actions such as cutting, felling, thinning, flooding, killing, poisoning, girdling, uprooting, or burning.

“Commercial fish” means those species of fish that are classified under the Washington State Department of Fish and Wildlife Food Fish Classification as commercial fish (WAC [220-12-010](#)).

“Compensatory mitigation” means a project for the purpose of mitigating, at an equivalent or greater level, unavoidable critical area and buffer impacts that remain after all appropriate and practicable avoidance and minimization measures have been implemented. Compensatory mitigation includes, but is not limited to: wetland creation, restoration, enhancement, and preservation; stream restoration and relocation; rehabilitation; and buffer enhancement.

“Conservation” means the prudent management of rivers, streams, wetlands, wildlife and other environmental resources in order to preserve and protect them. This includes the careful use of natural resources in order to prevent depletion or harm to the environment.

“Conservation easement” means a legal agreement that the property owner enters into to restrict uses of the land for purposes of natural resources conservation. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property.

“Contaminant” means any chemical, physical, biological, or radiological substance that does not occur naturally in groundwater, air, or soil or that occurs at concentrations greater than those in the natural levels (Chapter [172-200](#) WAC).

“County” means Whatcom County, Washington.

“CPAL” is an acronym for Conservation Program on Agriculture Lands.

“Critical aquifer recharge areas” means areas designated by WAC [365-190-080](#)(2) that are determined to have a critical recharging effect on aquifers (i.e., maintain the quality and quantity of water) used for potable water as defined by WAC [365-190-030](#)(2).

“Critical area tract” means land held in private ownership and retained in an open undeveloped condition (native vegetation is preserved) in perpetuity for the protection of critical areas.

Critical Areas. The following areas shall be regarded as critical areas:

1. Critical aquifer recharge areas;
2. Wetlands;
3. Geologically hazardous areas;
4. Frequently flooded areas;
5. Fish and wildlife habitat conservation areas.

“Critical areas report” means a report prepared by a qualified professional or qualified consultant based on best available science, and the specific methods and standards for technical study required for each applicable critical area. Geotechnical reports and hydrogeological reports are critical area reports specific to geologically hazardous areas and critical aquifer recharge areas, respectively.

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“Critical facilities (essential facilities)” means buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes pursuant to the most recently adopted International Building Code (IBC).

“Critical habitat” means habitat areas with which endangered, threatened, sensitive or monitored plant, fish, or wildlife species have a primary association (e.g., feeding, breeding, rearing of young, migrating). Such areas are identified herein with reference to lists, categories, and definitions promulgated by the Washington State Department of Fish and Wildlife as identified in WAC [232-12-011](#) or [232-12-014](#); in the Priority Habitat and Species (PHS) Program of the Department of Fish and Wildlife; or by rules and regulations adopted by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or other agency with jurisdiction for such designations.

“Critical saltwater habitat” includes all kelp beds, eelgrass beds, spawning and holding areas for forage fish, such as Pacific herring, surf smelt and Pacific sandlance; subsistence, commercial and recreational shellfish beds; mudflats, intertidal habitats with vascular plants; and areas with which priority species have a primary association.

“Cumulative impact” means effects on the environment that are caused by the combined results of past, current and reasonably foreseeable future activities. Evaluation of such cumulative impacts should consider: (1) current circumstances affecting the critical area and relevant natural processes; (2) reasonably foreseeable future development that may affect the critical area; and (3) beneficial effects of any established regulatory programs under other local, state, and federal laws.

“Debris flow” means a moving mass of rock fragments, soil, and mud, more than half of the particles being larger than sand size; a general term that describes a mass movement of sediment mixed with water and air that flows readily on low slopes.

“Debris torrent” means a violent and rushing mass of water, logs, boulders and other debris.

“Deepwater habitats” means permanently flooded lands lying below the deepwater boundary of wetlands. Deepwater habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium in which the dominant organisms live. The boundary between wetland and deepwater habitat in the marine and estuarine systems coincides with the elevation of the extreme low water of spring tide; permanently flooded areas are considered deepwater habitats in these systems. The boundary between wetland and deepwater habitat in the riverine and lacustrine systems lies at a depth of two meters (6.6 feet) below low water; however, if emergent vegetation, shrubs, or trees grow beyond this depth at any time, their deepwater edge is the boundary.

“Delineation” means the precise determination of wetland/non-wetland boundaries in the field according to the application of the specific method described in the Corps of Engineers Wetlands Delineation Manual, 1987 Edition, as amended, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0) 2010, or as revised.

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Designated Species, Federal. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.

Designated Species, State. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC [232-12-014](#) (state endangered species) and WAC [232-12-011](#) (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

“Development” means any land use activity, action, or manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, site work, and installation of utilities; land division, binding site plans, and planned unit developments; dredging, drilling, dumping, filling, grading, clearing, or removal of any sand, gravel, or minerals; shoreline stabilization works, driving of piling, placing of obstructions; or any project of a permanent or temporary nature that interferes with the normal public use of the surface of the waters overlying lands subject to the act at any stage of water level. “Development” does not include dismantling or removing structures if there is no other associated development or redevelopment. any activity that requires federal, state, or local approval for the use or modification of land or its resources. These activities include, but are not limited to: subdivisions and short subdivisions; binding site plans; planned unit developments; variances; shoreline substantial development permits and exemptions; clearing activity; fill and grade work; activity conditionally allowed; building or construction; revocable encroachment permits; and septic approval.

“Director” means the director of the Whatcom County Department of Planning and Development Services, or his/her designee.

“Ditch” or “drainage ditch” means an artificially created watercourse constructed to convey surface or groundwater. Ditches are graded (manmade) channels installed to collect and convey water to or from fields and roadways. Ditches may include:

1. Irrigation ditches;
2. Waste ways;
3. Drains;
4. Outfalls;
5. Operational spillways;
6. Channels;

Commented [CES105]: Amended to be consistent with that in T-23.

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7. Stormwater runoff facilities; or

8. Other wholly artificial watercourses.

This definition is not meant to include artificial water courses that conveys or historically conveyed (prior to human alteration) waters of the state, is used by anadromous or other fish populations, or flows directly into shellfish habitat conservation areas.

“Emergency activities” means those activities which require immediate action within a time too short to allow full compliance with this chapter due to an unanticipated and imminent threat to public health, safety or the environment. Emergency construction does not include development of new permanent protective structures where none previously existed. All emergency construction shall be consistent with the policies of Chapter [90.58](#) RCW and this chapter. As a general matter, flooding or other seasonal events that can be anticipated and may occur but that are not imminent are not an emergency.

“Emergent wetland” means a wetland with at least ~~30% percent~~ of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.

“Enhancement” means actions performed within an existing degraded critical area and/or buffer to intentionally increase or augment one or more functions or values of the existing critical area or buffer. Enhancement actions include, but are not limited to, increasing plant diversity and cover, increasing wildlife habitat and structural complexity (snags, woody debris), installing environmentally compatible erosion controls, or removing nonindigenous plant or animal species.

“Erosion” means a process whereby wind, rain, water and other natural agents mobilize, transport, and deposit soil particles.

“Erosion hazard areas” means lands or areas underlain by soils identified by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) as having “severe” or “very severe” erosion hazards and areas subject to impacts from lateral erosion related to moving water such as river channel migration and shoreline retreat.

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

“Exotic” means any species of plants or animals that is not indigenous to the area.

“Farm pond” means an open water depression created from a non-wetland site in connection with agricultural activities.

“Feasible” means an action, such as a development project, mitigation, or preservation requirement that meets all of the following conditions:

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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/ proponent. In determining an action's infeasibility, the County may weigh the action's relative costs and public benefits, considered in the short- and long-term time frames.

"Feasible alternative" means an action, such as development, mitigation, or restoration, that 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. Feasibility shall take into account both short- and long-term monetary and nonmonetary costs and benefits.

"Fen" means a mineral-rich wetland formed in peat that has a neutral to alkaline pH. Fens are wholly or partly covered with water and dominated by grass-like plants, grasses, and sedges.

"Fill material" means any solid or semisolid material, including rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure that, when placed, changes the grade or elevation of the receiving site.

"Filling" means the act of transporting or placing by any manual or mechanical means fill material from, to or on any soil surface, including temporary stockpiling of fill material.

"Fish and wildlife habitat conservation areas" are 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. Counties and cities may also designate locally important habitats and species. "Fish and wildlife habitat conservation areas" does 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 unless they meet the qualifications of WCC 16.16.710(B).

"Fish habitat" means a complex of physical, chemical, and biological conditions that provide the life-supporting and reproductive needs of a species or life stage of fish. Although the habitat requirements of a species depend on its age and activity, the basic components of fish habitat in

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rivers, streams, ponds, lakes, estuaries, marine waters, and nearshore areas include, but are not limited to, the following:

1. Clean water and appropriate temperatures for spawning, rearing, and holding;
2. Adequate water depth and velocity for migrating, spawning, rearing, and holding, including off-channel habitat;
3. Abundance of bank and in-stream structures to provide hiding and resting areas and stabilize stream banks and beds;
4. Appropriate substrates for spawning and embryonic development. For stream- and lake-dwelling fishes, substrates range from sands and gravel to rooted vegetation or submerged rocks and logs. Generally, substrates must be relatively stable and free of silts or fine sand;
5. Presence of riparian vegetation as defined in this article. Riparian vegetation creates a transition zone, which provides shade and food sources of aquatic and terrestrial insects for fish;
6. Unimpeded passage (i.e., due to suitable gradient and lack of barriers) for upstream and downstream migrating juveniles and adults.

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

“Floodplain” is synonymous with one hundred-year floodplain and means that land area susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the act. “Floodplain” means the total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

“Floodway” means the area, as identified in a master program, that either: (a) Has been established in federal emergency management agency flood insurance rate maps or floodway maps; or (b) 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. “Floodway” means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one foot. Also known as the “zero rise floodway.”

“Forested wetland” means a wetland with at least 30%~~percent~~ of the surface area covered by woody vegetation greater than 20 feet in height, excluding monotypic stands of red alder or cottonwood that average eight inches in diameter at breast height or less.

Commented [CES106]: Revised per language of WAC 173-26-020(20).

Commented [P/C107]: P/C moved to approve. Carries 9-0

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“Frequently flooded areas” means lands in the floodplain subject to a ~~one percent~~1% or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance and attenuation functions, as determined by the County in accordance with WAC [365-190-080](#)(3). Classifications of frequently flooded areas include, at a minimum, the “special flood hazard area” designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

“Function assessment” or “functions and values assessment” means a set of procedures, applied by a qualified consultant, to identify the ecological functions being performed in a wetland or other critical area, usually by determining the presence of certain characteristics, and determining how well the critical area is performing those functions. Function assessments can be qualitative or quantitative and may consider social values potentially provided by the wetland or other critical area. Function assessment methods must be consistent with best available science.

“Functions” means the processes or attributes provided by areas of the landscape (e.g., wetlands, rivers, streams, and riparian areas) including, but not limited to, habitat diversity and food chain support for fish and wildlife, groundwater recharge and discharge, high primary productivity, low flow stream water contribution, sediment stabilization and erosion control, storm and flood water attenuation and flood peak desynchronization, and water quality enhancement through biofiltration and retention of sediments, nutrients, and toxicants. These beneficial roles are not listed in order of priority.

“Functions, services, and value” means the beneficial functions that critical areas perform, the services they provide humans, and the values people derive from these roles including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, wave attenuation, protection from hazards, providing historical and archaeological resources, noise and visual screening, open space, and recreation. These beneficial roles are not listed in order of priority.

“Game fish” means those species of fish that are classified by the Washington State Department of Wildlife as game fish (WAC [232-12-019](#)).

“Geologically hazardous areas” means areas that, because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.

“Gradient” means a degree of inclination, or a rate of ascent or descent, of an inclined part of the earth’s surface with respect to the horizontal; the steepness of a slope. It is expressed as a ratio (vertical to horizontal), a fraction (such as meters/kilometers or feet/miles), a percentage (of horizontal distance), or an angle (in degrees).

“Grading” means any excavating or filling of the earth’s surface or combination thereof.

“Grazable acres” means both pasture and hay land as described in the Whatcom County Standard Farm Conservation Planning Workbook.

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“Groundwater” means all water that exists beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves (Chapter [90.44](#) RCW).

“Groundwater management area” means a specific geographic area or subarea designated pursuant to Chapter [173-100](#) WAC for which a groundwater management program is required.

“Groundwater management program” means a comprehensive program designed to protect groundwater quality, to assure groundwater quantity, and to provide for efficient management of water resources while recognizing existing groundwater rights and meeting future needs consistent with local and state objectives, policies and authorities within a designated groundwater management area or subarea and developed pursuant to Chapter [173-100](#) WAC.

“Growing season” means the portion of the year when soil temperatures are above biologic zero (41 degrees Fahrenheit).

“Growth Management Act” means Chapters [36.70A](#) and [36.70B](#) RCW, as amended.

“Habitats of local importance” designated as fish and wildlife habitat conservation areas include those areas found to be locally important by Whatcom County pursuant to WCC [16.16.710](#)(C)(12).

“Hazard tree” (outside the shoreline jurisdiction) means a tree whose risk evaluation, as determined through a Whatcom County approved tree risk assessment method, is high. Risk evaluation is the combined measurement of: tree failure identification, probability of failure, potential damage to permanent physical improvements to property causing personal injury, and consequences. A tree that constitutes an airport hazard is considered a hazard tree. A hazard tree whose failure is imminent and consequences of damage to permanent physical improvements to property causing personal injury are significant is considered an emergency. “Imminent” in this instance means failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. Imminent may be determined by a qualified consultant (defined in this section) or when mutually agreed upon by a landowner and Whatcom County.

“Hazard tree” (within the shoreline jurisdiction) means any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors, and which because of its location is at risk of damaging permanent physical improvements to property or causing personal injury.

“Hazardous substance” means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC [173-303-090](#) or [173-303-100](#).

“High intensity land use” means land use that includes the following uses or activities: commercial, urban, industrial, institutional, retail sales, residential (more than one unit/acre), high-intensity new agriculture (dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), hobby farms,

Commented [P/C108]: P/C Motion to move these uses to moderate intensity land use definition. Motion carries 4-3-1-0

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and Class IV special forest practices, including the building of logging roads ~~(note that pursuant to WCC 16.16.230(A), all other forest practices are exempt from this chapter).~~

Commented [CES109]: They are not exempt; however, they do not require review under this chapter.

“Hydraulic project approval (HPA)” means a permit issued by the State Department of Fish and Wildlife for modifications to waters of the state in accordance with Chapter [75.20](#) RCW.

“Hydric soil” means a soil that is or has been saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined following the methods described in the NRCS “Field Indicators of Hydric Soils” Version 7, and/or the Corps of Engineers Wetlands Delineation Manual, as amended.

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

1. Low runoff potential and a high rate of infiltration potential;
2. Moderate infiltration potential and a moderate rate of runoff potential;
3. Slow infiltration potential and a moderate to high rate of runoff potential; and
4. High runoff potential and very slow infiltration and water transmission rates.

“Hydrophytic vegetation” means macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

“Hyporheic zone” means the saturated zone located beneath and adjacent to streams that contain some proportion of surface water from the surface channel. The hyporheic zone serves as a filter for nutrients, as a site for macroinvertebrate production important in fish nutrition and provides other functions related to maintaining water quality.

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

“In-kind compensation” means to replace critical areas with substitute areas whose characteristics and functions mirror those destroyed or degraded by a regulated activity.

“Infiltration” means the downward entry of water into the immediate surface of soil.

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“Intertidal zone” means the substratum from extreme low water of spring tides to the upper limit of spray or influence from ocean-derived salts. It includes areas that are sometimes submerged and sometimes exposed to air, mud and sand flats, rocky shores, salt marshes, and some terrestrial areas where salt influences are present.

“Invasive species” means a species that is: (1) nonnative (or alien) to Whatcom County, and (2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can be plants, animals, and other organisms (e.g., microbes). Human actions are the primary means of invasive species introductions.

“Lahar” means a mudflow and debris flow originating from the slopes of a volcano.

“Lahar hazard area” means areas that have been or potentially could be inundated by lahars or other types of debris flows, according to a map showing volcano hazards from Mount Baker, Washington.

“Lake” means a naturally or artificially created body of deep (generally greater than 6.6 feet) open water that persists throughout the year. A lake is larger than a pond, greater than one acre in size, equal to or greater than 6.6 feet in depth, and has less than 30%~~percent~~ aerial coverage by trees, shrubs, or persistent emergent vegetation. A lake is bounded by the ordinary high water mark or the extension of the elevation of the lake’s ordinary high water mark with the stream where the stream enters the lake.

“Landfill” means a disposal facility or part of a facility at which solid waste is permanently placed in or on land including facilities that use solid waste as a component of fill.

“Landslide” means a general term covering a wide variety of mass movement landforms and processes involving the downslope transport, under gravitational influence of soil and rock material en masse; included are debris flows, debris avalanches, earthflows, mudflows, slumps, mudslides, rock slides, and rock falls.

“Landslide hazard areas” means areas that, due to a combination of site conditions like slope inclination and relative soil permeability, are susceptible to mass wasting.

“Low intensity land use” means land use that includes the following uses or activities: forestry (cutting of trees only), low intensity open space (such as passive recreation and natural resources preservation), ~~and~~ unpaved trails, utility corridors without maintenance roads and little or no vegetation management, or similar uses that do not require land disturbance.

“LWD” is an acronym for large woody debris.

“Maintenance or repair” means those usual activities required to prevent a decline, lapse or cessation from a lawfully established condition or to restore the character, scope, size, and design of a serviceable area, structure, or land use to a state comparable to its previously authorized and undamaged condition. This does not include any activities that change the character, scope, or size of the original structure, facility, utility or improved area beyond the original design.

Commented [CES110]: Added to make consistent with DOE’s guidance.

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“Major development” means any project for which a major project permit is required pursuant to WCC Chapter 20.88 ~~WCC~~. For the purposes of this chapter, “major development” shall also mean any project associated with an existing development for which a major development permit has been required or other existing legally nonconforming development for which a major development permit would otherwise be required if developed under the current land use regulations outlined in WCC Title 20.

“Mass wasting” means downslope movement of soil and rock material by gravity. This includes soil creep, erosion, and various types of landslides, not including bed load associated with natural stream sediment transport dynamics.

“Mature forested wetland” means a wetland with an overstory dominated by mature trees having a wetland indicator status of facultative (FAC), facultative-wet (FACW), or obligate (OBL). Mature trees are considered to be at least 21 inches in diameter at breast height.

“Maximum credible event” means the largest debris flow event that can be hypothesized from geologic processes within a watershed above an alluvial fan with consideration of the volume of sediment and debris that would be available within the drainage combined with material from landslides that would enter the drainage, and the volume of water that could become trapped behind and within the debris flow or dammed within the drainage.

“May” means the action is allowable, provided it conforms to the provisions of this title.

“Mean annual flow” means the average flow of a river or stream (measured in cubic feet per second) from measurements taken throughout the year. If available, flow data for the previous 10 years should be used in determining mean annual flow.

“Mitigation” means individual actions that may include a combination of the following measures, listed in order of preference:

1. Avoiding an impact altogether by not taking a certain action or parts of actions;
2. Minimizing impacts by limiting the degree or magnitude of an action and its implementation;
3. Rectifying impacts by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating an impact over time by preservation and maintenance operations during the life of the action;
5. Compensating for an impact by replacing or providing substitute resources or environments;
and
6. Monitoring the mitigation and taking remedial action when necessary.

“Mitigation bank” means a site where wetlands or similar habitats are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

“Mitigation bank instrument” means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The “bank instrument” describes in detail the physical

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and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

“Mitigation bank review team” or “MBRT” means an interagency group of federal, state, tribal and local regulatory and resource agency representatives that are invited to participate in negotiations with the bank sponsor on the terms and conditions of the bank instrument.

“Mitigation bank review team process” or “MBRT process” means a process in which the County and other agencies strive to reach consensus with the MBRT members on the terms, conditions, and procedural elements of the bank instrument.

“Mitigation bank sponsor” means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

“Mitigation plan” means a detailed plan indicating actions necessary to mitigate adverse impacts to critical areas.

“Moderate intensity land use” means land use that includes the following uses or activities: residential (one unit/gross acre or less), moderate-intensity open space (parks with biking, jogging, etc.), moderate-intensity new agriculture (orchards, ~~and~~ hay fields, nurseries, raising and harvesting crops requiring annual tilling), ~~and~~ paved trails, building of logging roads, and utility corridors or rights-of-way shared by several utilities and including access/maintenance roads.

Commented [P/C111]: Motion to move these uses to moderate intensity land use definition. Motion carries 4-3-1-0

Commented [CES112]: Making consistent w/ DOE guidance.

“Monitoring” means evaluating the impacts of development proposals over time on the biological, hydrological, pedological, and geological elements of ecosystem functions and processes, and/or assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features compared to baseline or pre-project conditions and/or reference sites.

“Native vegetation” means plant species that are indigenous to Whatcom County and the local area.

“Nearshore habitat” means the zone that extends seaward from the marine shoreline to a water depth of approximately 20 meters (66 feet). Nearshore habitat is rich biologically, providing important habitat for a diversity of plant and animal species.

“No net loss” means the maintenance of the aggregate total of the County’s critical area functions and values as achieved through a case-by-case review of development proposals. Each project shall be evaluated based on its ability to meet the no net loss goal.

“Off-site mitigation” means to replace critical areas away from the site on which a critical area has been adversely impacted by a regulated activity.

“Ongoing agriculture” means those activities conducted on lands defined in RCW [84.34.020](#)(2), and those activities involved in the production of crops and livestock, including, but not limited to, operation and maintenance of existing farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities that bring an area into agricultural use are not part of an ongoing activity. An

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operation ceases to be ongoing when the area on which it was conducted has been converted to a nonagricultural use, or has lain idle for more than five consecutive years unless that idle land is registered in a federal or state soils conservation program. Forest practices are not included in this definition.

“Ordinary high water mark” means the mark or line on all lakes, rivers, streams, and tidal water that will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland in respect to vegetation (RCW [90.58.030](#)(2)(b)).

“Person” means any individual, trustee, executor, other fiduciary, corporation, firm, partnership, association, organization, or other entity, either public or private, acting as a unit ~~cooperative, public or municipal corporation, state agency or local governmental unit, however designated, or Indian nation or tribe.~~

Commented [CES113]: Making consistent w/ other Titles.

“Planned unit development (PUD)” means one or a group of specified uses, such as residential, resort, commercial or industrial, to be planned and constructed as a unit. Zoning or subdivision regulations with respect to lot size, building bulk, etc., may be varied to allow design innovations and special features in exchange for additional and/or superior site amenities or community benefits.

“Planning advisor” means those qualified individuals who have technical experience and training necessary to prepare conservation farm plans for agricultural lands and who have been certified a technical service provider by the USDA Natural Resources Conservation Service (see <http://techreg.usda.gov>) and signed the practice and confidentiality agreement.

“Pond” means an open body of water, generally equal to or greater than 6.6 feet deep, that persists throughout the year and occurs in a depression of land or expanded part of a stream and has less than 30% ~~percent~~ aerial coverage by trees, shrubs, or persistent emergent vegetation. Ponds are generally smaller than lakes. Farm ponds, ponds built for the primary purpose of combating fires, stormwater facilities, and beaver ponds less than two years old are excluded from this definition.

“Potable” means water that is suitable for drinking by the public (Chapter [246-290](#) WAC).

“Preservation” means actions taken to ensure the permanent protection of existing, ecologically important critical areas and/or buffers that the County has deemed worthy of long-term protection.

“Primary association” means the use or potential use of a habitat area by a listed or priority species for breeding/spawning, rearing young, resting, roosting, feeding, foraging, and/or migrating on a frequent and/or regular basis during the appropriate season(s) as well as habitats that are used less frequently/regularly but which provide for essential life cycle functions such as breeding/nesting/spawning.

“Priority habitat” means a habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes:

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comparatively high fish or wildlife density; comparatively high fish or wildlife species diversity; fish spawning habitat; important wildlife habitat; important fish or wildlife seasonal range; important fish or wildlife movement corridor; rearing and foraging habitat; important marine mammal haulout; refuge; limited availability; high vulnerability to habitat alteration; unique or dependent species; or shellfish bed. A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife (such as oak woodlands or eelgrass meadows). A priority habitat may also be described by a successional stage (such as old growth and mature forests). Alternatively, a priority habitat may consist of a specific habitat element (such as a consolidated marine/estuarine shoreline, talus slopes, caves, snags) of key value to fish and wildlife. A priority habitat may contain priority and/or nonpriority fish and wildlife (WAC [173-26-020\(24\)](#)).

“Priority species” means wildlife species of concern due to their population status and their sensitivity to habitat alteration, as defined by the Washington State Department of Fish and Wildlife.

“Project” means any proposed or existing activity regulated by Whatcom County.

“Project permit” or “project permit application” means any land use or environmental permit or approval required by Whatcom County, including, but not limited to, building permits, subdivisions, binding site plans, planned unit developments, conditional uses, shoreline substantial development permits, variances, lot consolidation relief, site plan review, permits or approvals authorized by a comprehensive plan or subarea plan.

“Qualified professional” or “qualified consultant” means a person with experience and training with expertise appropriate for the relevant critical area subject in accordance with WAC [365-195-905\(4\)](#). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, soil science, engineering, environmental studies, fisheries, geology, geomorphology or a related field, and related work experience, and meet the following criteria:

1. Is listed on a roster of qualified professionals or qualified consultants prepared by the [PDS Natural Resource Supervisor/Director](#) and made available to the public.
2. A qualified professional for wetlands must have a degree in wildlife biology, ecology, soil science, botany, or a closely related field and a minimum of five years of professional experience in wetland delineation and assessment associated with wetland ecology in the Pacific Northwest or comparable systems. The following is required to be submitted to be placed on the roster:
 - a. Curriculum vitae or resume;
 - b. Three complete and approved wetland delineations (as primary author on at least one), conducted in accordance with the *U.S. Army Corps of Engineers Wetlands Delineation Manual, 1987*, or as amended; and
 - c. One complete and approved wetland delineation using the *U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, 2010*, or as amended. Successful completion of a wetland class using this manual may be substituted for this requirement.

Commented [Co/C114]: Added by Council 11/23/21

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3. A qualified professional for habitat conservation areas must have a degree in wildlife biology, ecology, fisheries, or a closely related field and a minimum of three years of professional experience related to the subject species/habitat type or approved equivalent work experience.
4. A qualified professional for geologically hazardous areas must be a professional engineering geologist or geotechnical engineer, licensed in the state of Washington.
5. A qualified professional for critical aquifer recharge areas means a Washington State licensed hydrogeologist, geologist, or engineer.
6. A qualified professional for tree risk assessment means a certified arborist or certified tree professional with a current ISA Tree Risk Assessment Qualification.
7. Anyone who has had their professional licensure or certification revoked for violations of the provisions of their profession does not meet the definition of a qualified professional or qualified consultant.

“RCW” is an acronym for Revised Code of Washington.

“Reasonable use” means a property that is deprived of all reasonable use when the owner can realize no reasonable return on the property or make any productive use of the property. “Reasonable return” does not mean a reduction in value of the land, or a lack of a profit on the purchase and sale of the property, but rather, where there can be no beneficial use of the property; and which is attributable to the implementation of the critical areas ordinance.

“Reasonable use exception” means an exception to the standards of this title that allows for any one of the uses allowed within a given zoning designation which cannot otherwise conform to the requirements set forth in this title, including the variance criteria; that have the least impact on the critical areas found on the subject property.

“Recharge” means the process involved in the absorption and addition of water from the unsaturated zone to groundwater.

“Reestablishment” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former critical area. Reestablishment results in rebuilding a former critical area and results in a gain in acres and functions. Activities could include removing fill, plugging ditches, or breaking drain tiles.

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

“Resident fish” means a fish species that completes all stages of its life cycle within freshwater and frequently within a local area.

“Restoration” means measures taken to restore an altered or damaged natural feature, including:

Commented [Co/C115]: All previously proposed amendments to this subsection rejected by Co/C 12/7/21 so it reverts to existing language.

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

“Retroactive Permit” means a permit applied for after the development, use, or activity has occurred, generally to bring such development, use, or activity into compliance through code enforcement.

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

“Riparian corridor” or “riparian zone” means the area adjacent to a water body (stream, lake or marine water) that contains vegetation that influences the aquatic ecosystem, nearshore area and/or fish and wildlife habitat by providing shade, fine or large woody material, nutrients, organic debris, sediment filtration, and terrestrial insects (prey production). Riparian areas include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems (i.e., zone of influence). Riparian zones provide important wildlife habitat. They provide sites for foraging, breeding and nesting; cover to escape predators or weather; and corridors that connect different parts of a watershed for dispersal and migration.

“Riparian vegetation” means vegetation that tolerates and/or requires moist conditions and periodic free-flowing water, thus creating a transitional zone between aquatic and terrestrial habitats which provides cover, shade and food sources for aquatic and terrestrial insects for fish species. Riparian vegetation and their root systems stabilize stream banks, attenuate high water flows, provide wildlife habitat and travel corridors, and provide a source of limbs and other woody debris to terrestrial and aquatic ecosystems, which, in turn, stabilize stream beds.

“Scrub-shrub wetland” means a wetland with at least 30% ~~percent~~ of its surface area covered by woody vegetation less than 20 feet in height as the uppermost strata.

“Seiche” is a standing wave in an enclosed or partially enclosed body of water. Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors. Seiches and seiche-related phenomena have been observed on lakes, reservoirs, swimming pools, bays, harbors and seas. The key requirement for formation of a seiche is that the body of water be at least partially bounded, allowing the formation of the standing wave.

“Seismic hazard areas” means areas that are subject to severe risk of damage as a result of earth-quake-induced ground shaking, slope failure, settlement, or soil liquefaction.

“SEPA” is a commonly used acronym for the State Environmental Policy Act.

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“Shellfish” means invertebrates of the phyla Arthropoda (class Crustacea), Mollusca (class Pelecypoda) and Echinodermata.

“Shellfish habitat conservation areas” means all public and private tidelands suitable for shellfish, as identified by the Washington State Department of Health classification of commercial growing areas, and those recreational harvest areas as identified by the Washington State Department of Ecology are designated as shellfish habitat conservation areas pursuant to WAC [365-190-80](#). Any area that is or has been designated as a shellfish protection district created under Chapter [90.72](#) RCW is also a shellfish habitat conservation area.

“Shellfish protection district” means the Drayton Harbor shellfish protection district (DHSPD) and the Portage Bay shellfish protection district (PBSPD) (~~WCC Chapter 16.20-WCC~~), or other area formed by the County based on RCW Title [90](#), in response to State Department of Health (DOH) closures or downgrades of a commercial shellfish growing area due to a degradation of water quality as a result of pollution. These areas include the watershed draining to the shellfish beds as part of the shellfish habitat conservation area.

“Shorelands” or “shoreland areas” means those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes and tidal waters which are subject to the provisions of Chapter [90.58](#)RCW.

“Shoreline” (Shoreline Management Act) means all of the water areas of the state, including reservoirs and their associated wetlands, together with lands underlying them, except:

1. Shorelines on segments of streams upstream from a point where the mean annual flow is 20 cubic feet per second or less and the wetlands associated with such upstream segments; and
2. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shorelines” means all of the water areas of the state as defined in RCW [90.58.030](#), including reservoirs and their associated shorelands, together with the lands underlying them, except:

1. Shorelines of statewide significance;
2. Shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second (cfs) or less and the wetlands associated with such upstream segments; and
3. Shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

“Shoreline Jurisdiction.” See WCC 23.20.010.

“Shorelines of statewide significance” means those areas defined in RCW [90.58.030](#)(2)(e).

“Shorelines of the state” means the total of all “shorelines,” as defined in RCW [90.58.030](#)(2)(d), and “shorelines of statewide significance” within the state, as defined in RCW [90.58.030](#)(2)(e).

“Single-family development” means the development of a single-family residence permanently installed and served with utilities on a lot of record.

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“Site” means any parcel or combination of contiguous parcels, or right-of-way or combination of contiguous rights-of-way, under the applicant’s/proponent’s ownership or control that is the subject of a development proposal or change in use.

“Slope” means:

1. Gradient.
2. The inclined surface of any part of the earth’s surface, delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

“Soil” means all unconsolidated materials above bedrock described in the Soil Conservation Service Classification System or by the Unified Soils Classification System.

“Special Flood Hazard Area (SFHA)” means the area that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood. On the FIRM maps, SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30.

“Species of local importance” are those species that are of local concern due to their population status or their sensitivity to habitat alteration or that are game species.

“Sphagnum bog” means a type of wetland dominated by mosses that form peat. Sphagnum bogs are very acidic, nutrient-poor systems, fed by precipitation rather than surface inflow, with specially adapted plant communities.

“Stormwater Manual” or “Stormwater Management Manual for Western Washington” means the version of the Department of Ecology’s Stormwater Management Manual for Western Washington most recently adopted by council.

“Streams” means those areas where surface water flows are sufficient to produce a defined channel or bed. A defined channel or bed is an area that 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 ditches or other artificial water courses unless they are used to convey streams naturally occurring prior to human alteration, and/or the waterway is used by anadromous or other fish populations, or flows directly into shellfish habitat conservation areas.

“Structure” means a permanent or temporary building or edifice of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner whether installed on, above, or below the surface of the ground or water, except for vessels.

“Substantially Developed Surface” is a legally established area of non-vegetated impervious surface.

“Surface waters of state.” See definition for “waters of the state”

“Survey” means one of the following:

1. Mapping using a compass and tape; or

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2. Mapping using a smart phone or hand held GPS; or
3. A survey completed by a licensed surveyor.

“Swale” means a shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one foot.

“Technical administrator” means the Director of the Department of Planning and Development Services. ~~This term is no longer used, but is still found older documents, or staff member designated by the director to perform the review functions required in this chapter.~~

“Toe” means the lowest part of a slope or cliff; the downslope end of an alluvial fan, landslide, etc.

“Top” means the top of a slope; or in this chapter it may be used as the highest point of contact above a landslide hazard area.

“Unavoidable” means adverse impacts that remain after all appropriate avoidance and minimization measures have been implemented.

“USDA” is an acronym for the United States Department of Agriculture

“Utilities” means all lines and facilities used to distribute, collect, transmit, or control electrical power, natural gas, petroleum products, information (telecommunications), water, and sewage.

“Volcanic hazard areas” means geologically hazardous areas that are subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, mudflows, or related flooding resulting from volcanic activity.

“WAC” is an acronym for Revised Code of Washington.

“Waters of the state” or “state waters” means all [lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and other surface waters and watercourses within the jurisdiction of Washington State \(RCW 90.48.020\)](#). ~~salt and freshwaters waterward of the ordinary high water line and within the territorial boundary of the state.~~

“Watershed” means a geographic region within which water drains into a particular river, stream or body of water. There are approximately 122 watersheds (e.g., Bertrand, Ten Mile, Dakota, Canyon Creek, Lake Whatcom, Lake Samish) identified in WRIA 1 and 3. These are nested within approximately 14 sub-basins (e.g., North Fork Nooksack, Drayton Harbor, Sumas River, Friday Creek), which are nested within four basins (e.g., Nooksack River, Fraser River, Samish River, coastal).

“Watershed improvement district” means a special district established pursuant to Chapter [85.38](#) RCW citation.

“WDFW” is an acronym for the Washington State Department of Fish and Wildlife.

“Wellhead protection area” means the area (surface and subsurface) managed to protect ground-water-based public water supplies.

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“Wet meadow” means palustrine emergent wetlands, typically having disturbed soils, vegetation, or hydrology.

“Wet season” means the period generally between November 1st and March 30th of most years when soils are wet and prone to instability. The specific beginning and end of the wet season can vary from year to year depending on weather conditions.

“Wetland” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands 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, retention 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. However, wetlands include those artificial wetlands intentionally created to mitigate wetland impacts.

“Wetland buffer” means a designated area contiguous or adjacent to a wetland that is required for the continued maintenance, function, and ecological stability of the wetland.

“Wetland class” means the general appearance of the wetland based on the dominant vegetative life form or the physiography and composition of the substrate. The uppermost layer of vegetation that possesses an aerial coverage of ~~30% percent~~ or greater of the wetland constitutes a wetland class. Multiple classes can exist in a single wetland. Types of wetland classes include forest, scrub/shrub, emergent, and open water.

“Wetland delineation” means the precise determination of wetland boundaries in the field according to the application of specific methodology as described in the Corps of Engineers Wetlands Delineation Manual, 1987 Edition, and the Western Mountains, Valleys, and Coast Region Supplement (Version 2.0) 2010, or as revised, and the mapping thereof.

“Wetland edge” means the boundary of a wetland as delineated based on the definitions contained in this chapter.

Wetland Enhancement. See “mitigation.”

“Wetland mitigation bank” means a site where wetlands and buffers are restored, created, enhanced or, in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

Wetland Restoration. See “mitigation” and “reestablishment.”

“Windthrow” means a natural process by which trees are uprooted or sustain severe trunk damage by the wind.

“Wood waste” means solid waste consisting of wood pieces or particles generated as a byproduct or waste from the manufacturing of wood products, handling and storage of raw materials and trees

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and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, hog fuel, and log sort yard waste, but does not include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate.

“WRIA” is an acronym for Water Resource Inventory Area