ATTACHMENTS: (all current and past materials provided to the Council can be found at http://www.whatcomcounty.us/2417/County-Council-Review)
   A. Staff memo to Council dated 1/19/2017
   B. Best Available Science Report 2016 (previously distributed)
   C. Chapter 16.16 Draft Critical Areas Ordinance - 2016-06-09, PC adopted (previously distributed)
   D. Release & Indemnification Agreement for Geohazards
      (materials also found at http://www.whatcomcounty.us/2417/County-Council-Review)

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE: (If this item is an ordinance or requires a public hearing, you must provide the language for use in the required public notice. Be specific and cite RCW or WCC as appropriate. Be clear in explaining the intent of the action.)

This is another workshop (in a series of many) on the proposed ordinance to amend Whatcom County Critical Areas Ordinance (CAO) (WCC 16.16) pursuant to RCW 36.70A.130(1). The Growth Management Act (RCW 360.70A) defines critical areas as wetlands, frequently flooded areas, fish and wildlife habitat conservation areas (including streams), geologically hazardous areas, and critical aquifer recharge areas. The purpose of this periodic update is to ensure that the CAO meets the GMA requirements, including consistency with the Whatcom County Comprehensive Plan, best available science, and state agency guidance updates. Numerous amendments are being proposed, though most of them pertain to correcting grammar, updating references to other documents or laws, clarifying and updating administrative procedures, etc. The County is also required to integrate the CAO provisions with its Shoreline Master Program (SMP). Whatcom County has done so by adopting the CAO by reference within the SMP (WCC 23.10.060(A)). This reference is also proposed to be amended.
Memorandum

TO: The Honorable County Council
    Jack Louws, County Executive
FROM: Cliff Strong, Senior Planner
THROUGH: Mark Personius, Asst. Director
DATE: January 19, 2017
SUBJECT: 2016 Critical Areas Ordinance Update
County Council Review, Workshop 4, 7 February 2017

On February 7th the Council will continue its review of the 2016 Critical Areas Ordinance Update. Topics to be covered include:

- Review of Certain Proposed Amendments to:
  - Article 6 – Wetlands
  - Article 8 – Conservation Program on Agriculture Lands

To prepare for this meeting, please review Articles 6 and 8 of the draft code and read the Best Available Science Addendum regarding those two sections (in your previous meeting packet materials), in which I point out the more substantive recommended amendments.

Council Questions from January 10, 2017

Council had several questions regarding the materials discussed on 1/10/17. Here are staff responses.

1. 16.16.235(B)(4) – Why is notification necessary for felling trees? How are people supposed to know that they even need to do this? There is concern that people just aren’t going to know to do this, or even think that this would be something that they would need to notify for. If someone out in the county has a tree that seems like it is going to fall on their house, they’re just going to go cut it down. (Brenner and Browne)

Staff Response: Under the current code there is a glitch in that the felling of hazard trees within a critical area is an exempt activity, yet to do so also requires that the property owner submit a tree risk assessment to PDS to ascertain whether the tree truly is a hazard tree (and not just a tree on a steep slope blocking a view, for instance). Thus, it seemed best to move this allowance from 16.16.230 (Exempt
Activities) to 16.16.235 (Activities allowed with notification) since it was already required. Staff realizes that folks may not know that to cut a tree one must notify PDS; however, given that it was already a requirement, moving it doesn’t really change anything. It doesn’t get rid of the notification requirement, and it doesn’t really change how many people will know that they’re supposed to notify PDS. It does give us an internally consistent rule, however.

2. 16.16.265(E) – Would like to see the document that indemnifies the county when people choose to build in hazard areas (Brenner)

PDS’s Release & Indemnification Agreement for geohazards is attached.

3. 16.16.270(B)(2)(g) and (h) (Brenner) – Would like to see the whatever form is used to assess the reasonable use criteria.

**Staff Response:** PDS doesn’t have a form we use to assess the reasonable use criteria. We do have applicants address how they believe they meet the criteria in the reasonable use application, and staff reviews this. We must then also make findings in the permit that’s issued addressing how staff feels they meet (or not) these criteria so that there’s an appealable record.

4. 16.16.500 (Weimer) – Would like to see some suggestions about integrating protecting the aquifer from nitrates. Additionally, why haven’t the studies that have been done on this issue (apparently from Canada?) been included in the best available science?

**Staff Response:** First, let me point out that the two mentioned nitrate studies are listed in the Best Available Science Addendum:

<table>
<thead>
<tr>
<th>Ref. #</th>
<th>Document</th>
</tr>
</thead>
</table>


However, they are both listed in the section on Article 8 (Conservation Program on Agriculture Lands), as they were introduced by the TAC/CAC during their discussion on that Article. The issue of nitrate contamination was not brought up during the discussion on Critical Aquifer Recharge Areas during our TAC/CAC process; it was only brought up by a few of their members after the committees had finished their review of the Critical Areas Ordinance. Staff did not feel we had the authority to amend something outside of that process. However, the issue was raised by Ms. Harris during the Planning Commission review, which the P/C discussed, but did not make any additional changes.

As for what can be done, I point you to the recommendations of the *Sumas-Blaine Aquifer Nitrate Contamination Summary* (Document #65):
Results of this study support the following recommendations.

- Conduct aquifer-wide follow-up nitrate monitoring in shallow wells to compare with 1997.
- Monitor nitrate concentrations in wells 40 feet deep and greater in the Sumas-Blaine Aquifer (SBA) to evaluate the extent of nitrate contamination throughout the aquifer.
- Work cooperatively among government agencies, with agriculture, environment, and human health responsibilities, to ensure that residents of the SBA are not harmed by drinking water above the nitrate maximum contaminant level (MCL).
- Encourage all residents on private wells to have their drinking water tested for nitrate.
- Provide public education and outreach to residents whose well water exceeds 10 mg/L-nitrogen (N).
- Intensify efforts to minimize nitrate leaching. Examples of strategies include:
  - Improving synchronization of nitrogen application and crop need
  - Track nitrogen mass balance for all crops grown on the SBA
  - Include groundwater and drinking water standards into technical standards for crop management.
  - Curtail fall nitrogen application.
- Coordinate with Canadian federal, provincial, and academic groups conducting monitoring and research to improve groundwater nitrate conditions on both sides of the transboundary Abbotsford-Sumas Aquifer. Investigate the degree of influence of Canadian nitrate sources on groundwater in Washington.

I would suggest that this issue is a multinational, multijurisdictional issue best addressed by those agencies that have better authority to address such trans-border and statewide issues, and that they actually are working to address the issue pursuant to those recommendations. That doesn’t mean that Whatcom County shouldn’t be involved, but not as a lead, but rather as a partner with these agencies (which in fact, we are). And as the study points out, it’s a problem decades in the making and will take perhaps even longer for the aquifer to clean itself out once past practices that led to the problem are curtailed.
RELEASE AND INDEMNIFICATION AGREEMENT

GRANTOR: 
GRANTEE: Whatcom County

ASSESSOR'S TAX PARCEL #(#s):
ADDRESS:

LEGAL DESCRIPTION:

REFERENCE NUMBERS OF DOCUMENTS RELEASED OR ASSIGNED:

(use abbreviated legal description on first page attach additional page with full legal description from current deed):

This Release and Indemnification Agreement (this "Agreement") is made by and between the Whatcom County, Washington, a County of the State of Washington ("County") and ("Owner").

RECITALS

A. The Owner owns real property in the County, which real property is legally described on Attachment A attached hereto and incorporated by this reference ("Real Property"). The Real Property is located at Whatcom County, WA.

B. The Owner has submitted an application for a development proposal on the Real Property, under the County’s File No.

C. The Real Property contains a geologically hazardous area. This type of area is "susceptible to erosion, landslides, earthquakes, volcanic activity, tsunamis and/or other geological processes," and is "a potential threat to natural resources, public health and safety, and can put the development and surrounding developments and uses at risk."

The Owner agrees that "alterations shall be directed toward portions of parcels or parcels under contiguous ownership that are not subject to, or at risk from, geologic hazards." WCC 16.16.310 and WCC 16.16.320.

Release and Indemnification
PL4-86-001-CC
- 1 -
October 2016
D. In view of the risks inherent in construction of buildings or structures in geologically hazardous areas, the County requires the owners of real property on which development is proposed in a geologically hazardous area to execute an indemnification agreement prior to any construction activities.

**AGREEMENT**

The parties agree as follows:

1. **Permit Processing.** The County agrees that the Owner's submission of this Agreement satisfies the requirements of WCC 16.16. The County shall process all future building permit applications in accordance with the requirements of Whatcom County Natural Resource Assessment Number __________ subject to the Owner meeting all requirements of all applicable codes, regulations, rules, and other laws.

2. **Release.** The Owner releases and discharges the County and its officers, employees, agents, successors, assigns and consultants from all known and unknown losses, liabilities, claims, damages or causes of action that the Owner has or may have relating to, arising out of, or resulting from, directly or indirectly, soil movement or the construction of buildings, structures and improvements on the Real Property, including but not limited to unintended results from maintenance, modification, or aging of drainage.

3. **Indemnification and Hold Harmless.** The Owner agrees to indemnify and hold harmless the County and its officers, employees, agents, successors, assigns and consultants from and against any losses, liabilities, claims, damages, or causes of action (including attorneys' fees incurred in defense thereof), for deaths or injuries to persons or loss of or damage to property, occurring either on or off the Real Property, sustained by any person or entity, including but not limited to the property Owner, family, guests, visitors, the County or its officers, employees, agents, successors, assignees and consultants, relating to, arising out of, or resulting from, directly or indirectly, soil movement or the construction of buildings, structures and improvements on the Real Property, including but not limited to unintended results from maintenance, modification, or aging of drainage and any other County or private facilities. The Owner shall give the County prompt notice in the event of claims potentially covered by this Agreement.

4. **Binding Nature.** The provisions of this Agreement shall inure to the benefit of and be binding on the parties and their respective heirs, representatives, successors and assigns. The provisions of this Agreement shall constitute covenants running with the Real Property.

5. **Recording.** This Agreement shall be recorded with the Whatcom County Auditor.

6. **Attorneys' Fees.** In the event of any dispute relating to or arising out of this Agreement, including mediation, arbitration or litigation, then the prevailing party shall be awarded all costs and expenses, including reasonable attorney fees, incurred in connection with the dispute.
Reviewed and approved by:

Whatcom County Technical Administrator

Date

Date Stamp

Signature of Owner

Signature of Owner

Print Name

Print Name

Date

Date

STATE OF WASHINGTON

COUNTY OF WHATCOM

) ss:

I certify that I know or have satisfactory evidence that ___________________________
is/are the person(s) who appeared before me, and said person(s) acknowledged it to be
his/her free and voluntary act for the uses and purposes mentioned in this instrument.

Dated ____________________

Notary Signature: _______________________

Printed Name: _______________________

Residing at: _______________________

My appointment expires: _______/______/_____

Release and Indemnification
PL4-86-001-CC

- 3 -

October 2016
STATE OF WASHINGTON
                                    ) ss:
COUNTY OF WHATCOM)

I certify that I know or have satisfactory evidence that ______________________
is/are the person(s) who appeared before me, and said person(s) acknowledged it to be
his/her free and voluntary act for the uses and purposes mentioned in this instrument.

Dated ____________________

Notary Signature: ______________________

Printed Name: ______________________

Residing at: ______________________

My appointment expires: ______/_____/______
ATTACHMENT A
ARTICLE 6. WETLANDS

16.16.600 Purpose.
The purposes of this article are to:
A. Recognize and protect the beneficial functions, values, uses, and services performed by many 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.

A. Wetlands are those areas that are inundated or saturated by surface 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. Swamps, freshwater and saltwater marshes, bogs, and some meadows are examples of wetlands. Some riparian areas adjacent to streams are also wetlands.

B. A. Wetlands shall be identified in accordance with the requirements of RCW 36.70A.175. Unless otherwise provided for in this chapter, all areas within the County meeting the criteria in the Washington State Wetlands Identification and Delineation Manual (Ecology Publication 96-94) or WAC 173-30 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, as revised or updated, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this article.

C. 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. The county shall update the maps as new wetlands are identified and as new information becomes available.

D. 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, August 2004 (Ecology Publication No. 34-06-01904-06-025), as determined using the appropriate rating forms and associated figures, as contained in that publication. These categories are generally defined as follows:
1. Category I. Category I wetlands are: (1) relatively undisturbed estuarine wetlands larger than 1 acre, (2) wetlands of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR; (3) bogs; (4) mature and old-growth forested wetlands larger than 1 acre; (5) wetlands in coastal lagoons; (6) interdunal wetlands that score 8 or 9 habitat points and are larger than 1 acre; and (7) wetlands that perform many functions well (scoring 23 points or more). These wetlands: (1) represent unique or rare wetland types; (2) are more sensitive to disturbance than most wetlands; (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions.

1. Category II. Wetlands. Category II wetlands are those wetlands of exceptional value in terms of protecting water quality, storing flood and stormwater, and/or providing habitat for wildlife as indicated by a rating system score of 23 points or more on the Ecology rating forms. These are wetland communities of infrequent occurrence that often provide documented habitat for rare, threatened, or endangered species, and/or have other attributes with functions that are very difficult or impossible to replace if altered. Category II wetlands include large, undisturbed estuarine wetlands, wetlands with a high conservation value, bogs, wetlands with mature or old growth forests, coastal lagoons, and interdunal wetlands.

2. Category II. Category II wetlands are: (1) estuarine wetlands smaller than 1 acre, or disturbed estuarine wetlands larger than 1 acre; (2) interdunal wetlands larger than 1 acre or those found in a mosaic of wetlands; or (3) wetlands with a moderately high level of functions (scoring between 20 and 22 points). Category II Wetlands. Category II wetlands have significant value based on their function as indicated by a rating system score of between 2051 and 2269 points on the Ecology rating forms. They do not meet the criteria for Category I rating but occur infrequently and have qualities that are difficult to replace if altered.

3. Category III. Category III wetlands are: (1) wetlands with a moderate level of functions (scoring between 16 and 19 points); (2) can often be adequately replaced with a well-planned mitigation project; and (3) interdunal wetlands between 0.1 and 1 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. Category III Wetlands. Category III wetlands have important resource value as indicated by a rating system score of between 1530 and 1950 points on the Ecology rating forms. They occur commonly in Whatcom County.

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. Category IV Wetlands. Category IV wetlands are wetlands that have been highly altered and are of limited resource value, as indicated by a rating system score of less than 1630 points on the Ecology rating forms. They typically have vegetation of similar age and class, lack special habitat features, and/or are isolated or disconnected from other aquatic systems or high-quality upland habitats. Nevertheless, Category IV wetlands still have value, as cumulatively, they can play a vital role in moderating hydrolgy. They also have the most potential for ecological lift (difference in value if restored).

E.D. All wetlands shall be regulated regardless of size; provided, that hydrologically isolated Category IV wetlands less than one-tenth acre (4.366 square feet) in size may be adversely impacted shall be exempt from the requirements of this article when all of the following criteria are met:
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, or buffer, as defined in WCC 16.16.710, or buffer, and is not integral to the maintenance of habitat functions of a habitat conservation area.

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. 14-06-02994-06-026); and

6. The wetland is not identified as locally significant by a local watershed plan prepared pursuant to Chapter 400-12 WAC.

6.7. Adverse impacts are mitigated pursuant to WCC 16.16.680


The following activities may be permitted in wetlands and/or wetland buffers as specified when 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 that cannot be avoided, and the amount and degree of alteration are limited to the minimum needed to accomplish the project purpose:

A. Developments that meet the reasonable use or variance standards as set forth in WCC 16.16.270.

B. Surface water discharge into Category II, III, and IV wetlands and their buffers and/or Category I wetland buffers when no other alternatives for discharge are feasible and the discharge is designed to minimize physical, hydrologic, and ecological impacts to the wetland.

C. 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:

1. 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.

2. Clearing, grading, and excavation activities are limited to the minimum necessary to install the utility line and the area is restored following utility installation.

3. Buried utility lines shall be constructed in a manner that prevents adverse impacts to surface and subsurface drainage. This may include respect to the approximate original contour or the use of trench plugs or other devices as needed to maintain hydrology.

3.4. 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. Public roads, bridges, and trails, 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, or trail 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.

E. Access to private development sites may be permitted to cross Category II, III, or IV wetlands or their buffers, provided there are no feasible alternative alignments and measures are taken to maintain preconstruction hydrologic connectivity across the access road. Alternative access shall be pur-
sued to the maximum extent feasible, including through the provisions of Chapter 8.24 ROW. Exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be specified, including placement on elevated structures as an alternative to fill, if feasible.

E. Agricultural Uses as follows:
1. Construction of an appurtenant structure that is associated with a primary agricultural use;
or the reconstruction, remodeling, or maintenance of such structures in wetland buffers, subject to all of the following specific criteria:
   i. The structure is located within an existing lot of record and is an existing ongoing agricultural use.
   ii. There is no other feasible location with less impact to critical areas.
   iii. 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. Existing ongoing agricultural activities subject to the following:
   i. The activities are conducted in accordance with all applicable provisions of this chapter and WCC Title 17, or
   ii. The agricultural activity is in compliance with the Conservation Program on Agricultural Lands (CPAL) as described in WCC 16.16.290, and Appendix AArticle 8 of this chapter.

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; and
   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.

G. Stormwater management facilities, fecal
3.1 Stormwater management facilities, limited to detention/retention/treatment ponds, media filtration facilities, and lagoons or infiltration basins, or bio-retention cells (engineered or rain gardens) may be permitted within the outer 50% percent of a Category II, III or IV wetland buffer, provided; that:
   i. Construction of the stormwater facility does not displace or impact a forested buffer;
   ii. 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 16.16.620;
   iii. 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;
   iv. 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
   v. Low impact development approaches have been considered and implemented to the maximum extent feasible per the Department of Ecology Stormwater manual.

4.2 Surface water or stormwater conveyance or discharge facilities such as dispersion trenches, level spreaders, and outfalls may be permitted within a Category II, III, or IV wetland buffer on a case-by-case basis when the technical administrator determines that all of the following are met:
1. 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.

2. 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.

3. The discharge outlet is designed to prevent erosion and promote infiltration.

4. The dispersion outfall is within the outer 25% of the buffer area.

5. Passive recreation facilities that are part of a nonmotorized trail system or environmental education program, including walkways, wildlife viewing structures, and/or public education trails in wetland buffers, provided that all of the following criteria are met:
   1. Private trails shall not exceed 46 feet in width, and public trails shall not exceed 10 feet in width.
   2. They shall be made of pervious material or on an elevated structure where feasible.
   3. They shall be designed to avoid removal of significant trees.
   4. When located in the buffer, the trail or facility shall be located in the outer 25% of the buffer, or should be designed to avoid removal of significant trees. 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.
   5. They shall be constructed and maintained in a manner that minimizes disturbance of the buffer and associated critical areas.

6. Existing ongoing agricultural activities subject to the following:
   1. The activities are conducted in accordance with all applicable provisions of this chapter and WCC Title 47 or.
   2. The agricultural activity is in compliance with the Conservation Program on Agricultural Lands (CPA) as described in WCC 16.16.290, and Appendix A of this chapter.

7. 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(A) (Reasonable Use) are met.

8. On-site sewage disposal systems (OSS) may be permitted in wetland buffers when accessory to an approved residential structure;
   1. When it is not feasible to connect to a public sanitary sewer system; and,
   2. It is located as far as possible from the wetland; and,
   3. When it is operated and maintained in accordance with WCC 24.05.170; provided, that adverse effects on water quality are avoided.

16.16.630 Standards—wetland buffer widths.
The technical administrator shall have the authority to require buffers from the edges of all wetlands in addition to the building setback required by 16.16.265(D) in accordance with the following:

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

B. Wetland buffers shall be measured perpendicular to the wetland edge on all sides as marked in the field. Buffers shall not include areas that are functionally and effectively disconnected from the wetland by a non-existing, legally established road or other substantial developed surface.

B. The 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 may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.
C. The standard buffer shall be based on a combination of wetland category, habitat function score (from the wetland rating form), and land use intensity—i.e., the intensity of the proposed land use and the functions and values provided by the wetland. The intensity of the land use shall be determined in accordance with the definitions outlined in Article 8-2 of this chapter unless the technical administrator 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 Section 16.16.640.

D. Standard buffer widths are shown in Table 2. There are three possible standard buffer scenarios listed in the following tables:

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Habitat Function Score</th>
<th>Land Use Intensity</th>
<th>Buffer Width (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>8 - 9</td>
<td>300</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>6 - 7</td>
<td>150</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>&lt; 5</td>
<td>100</td>
<td>75</td>
</tr>
<tr>
<td>Category II</td>
<td>8 - 9</td>
<td>275</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>6 - 7</td>
<td>150</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>&lt; 5</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Category III</td>
<td>8 - 9</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>6 - 7</td>
<td>150</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>&lt; 5</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Category IV</td>
<td>8 - 9</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>6 - 7</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>&lt; 5</td>
<td>50</td>
<td>25</td>
</tr>
</tbody>
</table>

* Definitions for high, moderate, and low intensity land use are provided in Article 8 of this chapter.

E. For wetlands that have a high level of function for wildlife habitat as indicated by a habitat function score of 8 to 929 points or more on the wetland rating form, the buffers shall be as follows:

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>High Intensity</th>
<th>Moderate Intensity</th>
<th>Low Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Buffer Width (ft)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category I</td>
<td>300</td>
<td>225</td>
<td>150</td>
</tr>
<tr>
<td>Category II</td>
<td>275</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td>Category III</td>
<td>150</td>
<td>110</td>
<td>75</td>
</tr>
<tr>
<td>Category IV</td>
<td>50</td>
<td>40</td>
<td>25</td>
</tr>
</tbody>
</table>
F. For wetlands that have a moderate level of function for wildlife habitat as indicated by a habitat function score of 20 to 285 points on the wetland rating form, the buffers shall be as follows:

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>High Intensity Buffer Width (feet)</th>
<th>Moderate Intensity Buffer Width (feet)</th>
<th>Low Intensity Buffer Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>150</td>
<td>110</td>
<td>75</td>
</tr>
<tr>
<td>Category II</td>
<td>150</td>
<td>110</td>
<td>75</td>
</tr>
<tr>
<td>Category III</td>
<td>150</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>Category IV</td>
<td>50</td>
<td>40</td>
<td>25</td>
</tr>
</tbody>
</table>

Definitions for high, moderate and low intensity land use are provided in Article 8 of this chapter.

G. For wetlands that have a low level of function for wildlife habitat as indicated by a habitat function score of less than 20.5 points on the wetland rating form, the buffers shall be as follows:

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>High Intensity Buffer Width (feet)</th>
<th>Moderate Intensity Buffer Width (feet)</th>
<th>Low Intensity Buffer Width (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>100</td>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>Category II</td>
<td>100</td>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>Category III</td>
<td>80</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Category IV</td>
<td>50</td>
<td>40</td>
<td>25</td>
</tr>
</tbody>
</table>

Definitions for high, moderate and low intensity land use are provided in Article 8 of this chapter.

H. Because there is a large increase in width associated with a one-point increase in the habitat score, the technical administrator may deviate from the buffer requirements outlined in subsection D of this section and increase the buffer widths in increments of 20 feet for every one-point increase in the habitat score in accordance with guidance developed by the Department of Ecology in Wetlands in Washington State—Volume 2: Guidance for Protecting and Managing Wetlands (Publication No. 95-06-008). [TAC111]
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, or II, or III wetland shall not be reduced to less than 75% percent of the required buffer or 50 feet, whichever is greater;
C. The buffer of a Category III or 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 reduce the adverse effects of adjacent land uses and ensure no net loss of buffer functions and values. The specific such measures may that shall be implemented include, but are not limited to, the following:
1. Direct lights away from the wetland and buffer;
2. Locate activities facilities that generate substantial noise (such as some manufacturing, industrial and recreational facilities) away from the wetland and buffer;
3. Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered.
4. Establish covenants limiting use of pesticides within 150 feet of the wetland.
5. Implement integrated pest management programs.
6. Prevent channelized flow from lawns that directly enters the buffer.
7. Infiltrate or treat, detain, and disperse runoff into buffer, new runoff from impervious surfaces and new lawns.
8. 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.
9. Use privacy fencing.
10. Use best management practices to control dust. [CAC11]
11. Plant buffer with dense native vegetation appropriate for the region County to delineate buffer area and to create screens or thorny barriers to noise, light, human intrusion and discourage domestic animal intrusion. [TAC11]
12. Use low impact development where appropriate.
13. Establish a permanent conservation easement or tract to protect the wetland and the associated buffer.

16.16.650 Standards—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 an essential 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, or 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 III or 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
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 Standards—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. Prevent windthrow damage; or
C. Maintain viable populations of species such as herons and other priority fish and wildlife; or
D. Protect wetlands or other critical areas from landslides, erosion or other hazards.

16.16.670 Review and reporting requirements.
A. Review Process for Non-Single Family Development. When County critical area maps or other sources of credible information indicate that a site proposed for development or alteration may contain or abut wetlands or wetland buffers, the technical administrator may require a site evaluation (field investigation) 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 the technical administrator determines that a wetland is more likely than not present, the technical administrator shall require a wetland assessment report pursuant to WCC 16.16.755 and subsection B of this section. If no regulated wetlands are present, then wetland review will be considered complete.
B. A wetland assessment report describes the characteristics of the subject property and adjacent areas and must be consistent with WCC 16.16.755. The 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. The investigation shall also include field identification and a complete NR5117 delineation of all wetland boundaries [with delineations field flagged and left in the field for County verification]. This may include analysis of historical aerial photos, review of public records, and interviews with adjacent property owners. Assessment reports shall include the following site- and proposal-related information unless the technical administrator determines that any portion of these requirements is unnecessary given the scope and/or scale of the proposed development:
1. Location information (legal description, parcel number, and address);
2. A qualitative written assessment and accompanying maps of critical areas, 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 wetlands shall be based on available information and shall not require accessing off-site properties;
3. 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 reduction or averaging including documentation that functions and values will not be adversely affected by the reduction or averaging; 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 or human intrusion;
4. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;
6. Wetland Determination and Mapping. The exact location of all wetland boundaries shall be determined through the performance of a field investigation by a qualified wetland professional applying 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 (WAC 246-20-1101) as revised Washington State Wetlands Identification and Delineation Manual as required by RCW 36.70A.175 (Ecology Publication No. 36.991) (WAC 246-20-1102). The wetland boundary shall be marked in the field and surveyed. The surveyed wetlands areas shall be mapped showing location and size of all wetlands. The Technical Administrator may request verification of the wetland delineation by the Army Corps of Engineers when a high degree of accuracy is necessary to determine applicable regulations and requirements.
7. Wetland Delineation Requirements. The following are required components of a wetland delineation report:
   a. The report shall be prepared by a qualified professional for wetlands, who meets the minimum requirements as defined in this chapter;
   b. Maps. The wetland delineation report shall include the following maps:
      i. Vicinity map;
      ii. Parcel map, with scale, showing all wetlands within 300 feet of the development footprint unless access is denied in writing by the adjacent property owner. Parcel map shall include all streams and drainages (Type 1, 2, 3. 4, or 5 streams), shorelines, floodplains, flood prone areas and critical habitat for threatened and endangered species within 150 feet of the development footprint;
      iii. Topographic map based on city or surveyed data;
      iv. Map of development proposal with accurate scale;
   c. Wetland Analysis. A wetland delineation report shall provide an analysis of all wetlands and buffers (to the extent they can be legally accessed) within 150 feet of the development footprint including, at a minimum, the following information:
      i. Wetland delineation;
      ii. The wetland boundaries shall be surveyed by a licensed surveyor or using an equivalent method with an accuracy of plus or minus one foot of a survey;
      iii. Determination of each wetland size;
      iv. Description of each wetland class and category;
      v. Description of overall water sources and drainage patterns on site;
      vi. Description of vegetation, hydrologic conditions, and soil and substrate conditions;
      vii. Description of wildlife and habitat;
      viii. Topographic elevation, at two-foot contours;
      ix. 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;
      x. Standard buffer requirements for each wetland;
   d. Site plan that includes scale, and wetlands and associated buffers and proposed development;
C. Review Process for single-family development permits. The following options shall apply when development of a single-family dwelling is proposed on a site that contains wetlands or wetland buffers:
D. An assessment report shall be required when the single-family dwelling and associated features are proposed within the wetland or standard buffer of a regulated wetland. 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:
   a. Field investigation by County staff shall be at the discretion of the technical administrator
      and subject to workload and scheduling constraints.
   b. Fees for County staff services shall be in accordance with the unified fee schedule.

2. When the proposed single family dwelling and associated features are located outside the
   standard buffer required under WCC 16.16.630 (no encroachment), no assessment report shall
   be required. #5128

E-D. 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 shall have the au-
thority to require that deterrent devices (e.g., split rail fence or completed, clearly visible
wetland buffer signage) 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 in the form of a letter or similar affidavit.

In addition to the applicable general protective measures found in WCC 16.16.265, activities that ad
versely 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 shall 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 wetland types in the wa-
      tershed, 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 rest-
      oration plan, watershed planning document prepared and adopted pursuant to Chapter 90.82
      RCW, a watershed plan prepared pursuant to Chapter 460-12 WAC, a salmonid recovery plan or
      project that has been identified on the Salmon Recovery Board Habitat Project List or by the
      Washington State Department of Fish and Wildlife as essential for fish and wildlife habitat en-
      hancement, a fully authorized mitigation bank (§16.16.260(l)), or an in lieu fee program.
B. Type of Mitigation.
   1. Wetland Alterations. Compensatory mitigation projects shall restore, create, rehabilitate, en-
      hance, and/or preserve equivalent wetland functions and values pursuant to no net loss of func-
      tion and area. Compensation for wetland alterations shall occur in the following order of pre-
      ference:
      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 determines that the overall mitigation package fully replaces the functions and values lost due to development.

2. Buffer Alterations. Compensatory mitigation for buffer impacts shall be consistent with WCC 16.16.640, 650, and 660 and 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.

2. Compensatory mitigation for wetland alterations shall be based on the wetland category and the type of mitigation activity proposed. The replacement ratio shall be determined according to the ratios provided in the table below (Table 3); 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.

<table>
<thead>
<tr>
<th>Replacement Ratio (TAG) 2</th>
<th>Category I</th>
<th>Reestablishment or Creation</th>
<th>Rehabilitation</th>
<th>Enhancement Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>3:1</td>
<td>6:1</td>
<td>12:1</td>
<td></td>
</tr>
<tr>
<td>Category II</td>
<td>2:1</td>
<td>4:1</td>
<td>8:1</td>
<td></td>
</tr>
<tr>
<td>Category III</td>
<td>1:1</td>
<td>3:1</td>
<td>6:1</td>
<td></td>
</tr>
</tbody>
</table>

*Ratio is the replacement area:impact area

3. The mitigation ratios noted above in Table 3 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 16.16.260(F).

Table 3. Mitigation ratios for projects in western Washington.

<table>
<thead>
<tr>
<th>Category and Type of Wetland Impacts</th>
<th>Reestablishment or Creation</th>
<th>Rehabilitation Only</th>
<th>Reestablishment or Creation (R/C) and Rehabilitation (R/R)</th>
<th>Reestablishment or Creation (R/C) and Enhancement (E)</th>
<th>Enhancement Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>3:1</td>
<td>Case-by-case</td>
<td>1:1 R/C and 1:1 R/R</td>
<td>1:1 R/C and 2:1 E</td>
<td>6:1</td>
</tr>
<tr>
<td>Category II</td>
<td>2:1</td>
<td>Case-by-case</td>
<td>1:1 R/C and 2:1 R/R</td>
<td>1:1 R/C and 4:1 E</td>
<td>8:1</td>
</tr>
<tr>
<td>Category III</td>
<td>1:1</td>
<td>Case-by-case</td>
<td>1:1 R/C and 4:1 R/R</td>
<td>1:1 R/C and 6:1 E</td>
<td>12:1</td>
</tr>
</tbody>
</table>

D. Replacement 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; provided, that the technical administrator shall have the authority to approve a smaller buffer when existing site constraints (such as a road).

---

prohibit attainment of the standard buffer. Replacement wetlands shall not create buffer encum-

brances on adjoining properties.

E. The technical administrator shall have the authority to adjust the replacement ratios when one or

more of the following apply:

1. 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 3, at a 3:1 ratio. For example, impacts to one acre of a Category II wetland requiring a 3:1

ratio for creation can be compensated by creating one acre and enhancing four acres (instead of

the additional two acres of creation that would otherwise be required).

2. When the project proponent has demonstrated ability, based on past performance, to suc-

cessfully design, construct, monitor and maintain wetland mitigation projects/sites.

3. When use of the guidance for Calculating Credits and Debits for Compensatory Mitigation in

Wetlands of Western Washington results in a lower mitigation ratio than the standard ratio.

When meeting the required ratios would adversely affect other natural and valuable char-

acteristics of an otherwise appropriate and suitable mitigation site.

4. The ratios reduced pursuant to subsections (C)(2) and (3) of this section shall be at least 60 per-

cent of the standard ratios listed in subsection (C)(2) of this section and shall not be less than a

3:1 ratio.

F. 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 oc-
curs as close as possible to the impact area and within the same watershed as the permitted alter-
tation. 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.

G. All mitigation areas shall be protected and managed to prevent degradation and ensure protection

of critical area functions and values into perpetuity. Permanent protection shall be achieved through

deed restriction or other protective covenant in accordance with WCC 16.16.265.

H. 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 pri-

or 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 administra-

tor may adjust the timing requirements to allow grading, planting, and other activities to occur during

the appropriate season(s).

16.16.690 Standards—Compensatory wetland mitigation plan.

A. In addition to meeting the requirements of WCC 16.16.200(8), a compensatory mitigation plan for

wetland and wetland buffer impacts shall meet the following requirements:

1. 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.

2. The plan shall contain sufficient information to demonstrate that the proposed activities are lo-

gistically feasible, constructible, ecologically sustainable, and likely to succeed. Specific infor-

mation 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 (i.e., 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 wetland area(s);

e. Nature of mitigation activities, including area of restored, created, enhanced, rehabilitated and preserved wetland, by wetland type;

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. A description of site treatment measures including invasive species removal, use of mulch and fertilizer, placement of erosion and sediment control devices, and best management practices that will be used to protect existing wetlands and desirable vegetation;

h. A demonstration that the site will have adequate buffers sufficient to protect the wetland functions in perpetuity.

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 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.
PROPOSED FINDINGS OF FACT

(AS ADOPTED BY THE PLANNING COMMISSION)
Proposed Findings of Fact (as adopted by the Planning Commission)

WHEREAS, the adopted Whatcom County Comprehensive Plan supports the protection of environmentally critical areas through the adoption of development regulations; and

WHEREAS, the State Growth Management Act (GMA) includes adopted goals and requirements to guide the development and adoption of comprehensive plans and development regulations including requirements to designate and protect environmentally critical areas; and

WHEREAS; the County has considered those adopted goals, policies, and requirements in development of the proposed Whatcom County Code Amendments related to critical areas, and, has considered other state requirements, law, rules, guidelines, and agency comments; and

WHEREAS, the County researched and assessed the experience of other jurisdictions in regard to standards and requirements for regulating critical areas, undertook a Best Available Science (BAS) review and public process in accordance with the requirements of the GMA, developed Whatcom County Code amendment drafts, prepared environmental documents in accordance with the requirements of the State Environmental Policy Act (SEPA), and held meetings and hearings throughout the code development process; and

WHEREAS, the County has been provided feedback on draft work products and guidance from members of the public, County staff, the Washington State Department of Fish and Wildlife, the Washington State Department of Ecology, the Washington State Department of Commerce, the Lummi Nation, the Nooksack Indian Tribe, other stakeholders and experts, the Whatcom Planning Commission, and elected and appointed officials during the development of the recommended code amendments; and

WHEREAS, in developing this ordinance, the County has followed the GMA’s requirements, including to provide “early and continuous public involvement” through a variety of mechanisms described in the public record; and

WHEREAS, the County has followed the State guidelines for the BAS process required by RCW 36.70A.172 and WAC 365-195-900 through 925, employing a variety of mechanisms described in the public record; and

WHEREAS, a notice of intent to adopt the proposed code amendments was sent to the State of Washington Department of Commerce and to other State agencies on February 2, 2016, for a 60-day review and comment period in accordance with State law; and

WHEREAS, an environmental review has been conducted in accordance with the requirements of State Environmental Policy Act (SEPA), and a SEPA threshold determination was issued, and published on March 17, 2016, in the Bellingham Herald; and

WHEREAS, the Planning Commission held a total of 7 public meetings to consider the proposed amendments, which included two public hearings, one on May 12 and one on June 9, 2016, with deliberations throughout these meetings; and

WHEREAS, the Planning Commission has provided a recommendation to the County Council related to the proposed amendments; and
WHEREAS, the County Council held X study sessions on the proposed amendments on X, 2016, and a public hearing on X, 2016 and continued public hearing on X, 2016; and

WHEREAS, the County Council has considered the recommendation of the County Planning Commission and the public comments received; and

WHEREAS, the County Council has reviewed and considered a variety of information sources including Best Available Science materials, informational documents in the public record, and public testimony submitted verbally and in writing to the Planning Commission and to the County Council; and

WHEREAS, the County Council desires the proposed amendments to be effective throughout the County including within shoreline jurisdiction, a subsequent Shoreline Master Program amendment should be prepared for submittal to the State Department of Ecology for approval; and

WHEREAS, based upon the foregoing process, the County Council has made the following

Findings of Facts and Conclusions:

**General Critical Areas Findings**

1. The Growth Management Act requires critical areas to be designated and protected and to include and be informed by BAS when developing critical areas regulations. [RCW 36.70A]

2. Critical areas include wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, critical aquifer recharge areas, and frequently flooded areas.

3. The Whatcom County has within its borders a variety of environmentally sensitive areas that require protection of important functions and values.

4. Unregulated development may result in cumulative impacts to those functions and values of critical areas that contribute to and are necessary for a healthy natural environment and perceived quality of life.

5. The unregulated development of residences, businesses, shopping areas and other structures, and the clearing of land for accommodation of livestock and for such development all have the potential of adversely and significantly impacting the functions and values of critical areas.

6. The unregulated development of resource lands or areas susceptible to natural hazards may lead to inefficient use of limited public resources, jeopardize environmental resource functions and values, subject persons and property to unsafe conditions, and affect the perceived quality of life.

7. It is more costly to remedy the loss of critical area functions and values than to conserve and protect them from loss or degradation.

8. In determining what critical areas are to be afforded a particular degree of protection, Whatcom County has evaluated a wide range of the best science available with respect to the critical areas to make informed decisions that meet the intent of the Growth Management Act and that are also reflective of local needs.

9. The sources of this best available science that were evaluated and included in this ordinance are contained in Exhibit B: *Whatcom County Critical Areas Ordinance 2016 Update – Best Available Science Review: Addendum to the 2005 BAS Report.*
10. Protection standards for one critical area often provide protection for one or more other critical areas.

11. Critical areas may also be protected by other actions by the County, such as stormwater management standards, clearing and grading regulations, critical area restoration, and public education; and from other regulations, such as the Forest Practices Act, the Shoreline Management Act, the State Environmental Policy Act, and others.

12. The U.S. Constitution prohibits the taking of private property without just compensation.

13. The proposed regulations for critical areas are sufficient and appropriate to protect the functions and values of those areas consistent with the Whatcom Comprehensive Plan and Growth Management Act.

14. The amendments hereafter set forth address requirements related to development in and near environmentally critical areas including environmentally critical areas buffers, performance standards, mitigation requirements, exemptions and exceptions.

15. The amendments serve to further implement the Comprehensive Plan, and provide protection for critical areas that is consistent with BAS and with providing options and development flexibility, and are in the public interest.

16. The critical areas regulations continue to allow for reasonable use of property to ensure that such regulations do not infringe on constitutional private property rights.

17. The public record demonstrates that the amendments were developed through a review of the BAS literature available to the County for review and consideration.

18. The County has followed the GMA’s requirements for public involvement and for including and considering BAS in modification of the regulations for critical areas.

19. The public testimony provided to the County included both support for the proposed amendments and suggestions for modifications.

20. Based on the review of the testimony and public record, the amendments attached to this ordinance reflect the County’s requirement to protect critical areas and to consider the planning goals of the GMA, while recognizing public and private interests.

**Wetlands**

21. Wetlands and streams are environmentally sensitive and have numerous natural functions and values. These functions include: wildlife and fisheries habitat; water quality protection; flood protection; shoreline stabilization; stream flow; and ground water recharge and discharge. In many situations, these functions cannot be adequately replicated or replaced.

22. The scientific literature supports in the inclusion of protective buffers from wetlands to provide sediment control and nutrient inputs to wetlands, and to protect important wetland functions.

24. The scientific literature supports the inclusion of protective buffers of relatively intact native vegetation from wetlands to adequately protect wetland functions and values.


**Critical Aquifer Recharge Areas**

26. WAC 365-190-080 defines wellhead protection areas, sole source aquifers, special protection areas, and other areas that are susceptible or vulnerable to ground water contamination as areas with a critical recharging effect on aquifers used for potable water (also referred to as critical aquifer recharge areas).

27. Potable water is an essential life-sustaining element.

28. Much of the County's drinking water in rural areas comes from groundwater supplies.

29. Once groundwater is contaminated it is difficult, costly, and sometimes impossible to clean up.

30. Preventing groundwater contamination is necessary to avoid exorbitant costs, hardships, and potential physical harm to people.


**Frequently Flooded Areas**

32. Flood hazard areas are subject to periodic inundation that results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

33. These flood losses are caused by development in areas prone to inundation that increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to flood loss.

34. Floodplain and stream connectivity are major elements in maintaining healthy riparian habitat and off-channel habitats for the survival of fish species and conveyance of floodwaters. If river, floodplains, and other systems are not viewed holistically as biological, geomorphological units, this can lead to serious degradation of habitat and increase flood hazards, which in turn can contribute to listing of various fish species as threatened or endangered and result in extraordinary public expenditures for flood protection and relief.

35. Frequently flooded areas, including the 100-year floodplain and the floodway, are commonly mapped on flood insurance maps, often known as Flood Insurance Rate Maps, or FIRMs.
Geologically Hazardous Areas

36. Geologically hazardous areas are subject to periodic geological events that result in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

37. Geologic hazards may be exacerbated by development and human activity in sensitive areas, and impacts resulting from geologic hazards may be reduced by limiting development and human activity within or adjacent to the geologic hazard.

38. Some geologic hazards may be intensified during periods of consistent or heavy rainfall that results in ground saturation or surface water drainage flows.

Fish and Wildlife Habitat Conservation Areas

39. Fish and wildlife habitat conservation areas perform many important physical and biological functions that benefit Whatcom County and its residents, including but not limited to: maintaining species diversity and genetic diversity; providing opportunities for food, cover, nesting, breeding and movement for fish and wildlife; serving as areas for recreation, education and scientific study and aesthetic appreciation; helping to maintain air and water quality; controlling erosion; and providing neighborhood separation and visual diversity within urban areas.

40. Wetlands and streams are environmentally sensitive and have numerous natural functions and values. These functions include: wildlife and fisheries habitat; water quality protection; flood protection; shoreline stabilization; stream flow; and ground water recharge and discharge. In many situations these functions cannot be adequately replicated or replaced.

41. The scientific literature supports the inclusion of protective buffers from streams to provide sediment control, nutrient inputs to downstream waters, large woody debris, and other functions important to riparian areas.

42. The Washington Department of Fish and Wildlife (WDFW) has prepared management recommendations for the preservation of priority habitat and species, which are based on the best available science, and include, in some instances, recommended protective buffer distances.

43. Kelp and eelgrass beds have been identified and mapped by the Washington State Department of Natural Resources (DNR) in some areas. Herring and smelt spawning times and locations are outlined in WAC 220-110-240 through 220-110-260. Locations for both may be found by referring to Critical Spawning Habitat for Herring, Surf Smelt, Sand Lance and Rock Sole in Puget Sound, Washington: A Guide for Local Governments and Interested Citizens, 2002, and the Puget Sound Environmental Atlas, Volumes 1 and 2.

44. Salmonid and anadromous fish may be more impacted by development and human activity during some times than others. Such times are referred to as “fish windows,” which have been documented by WDFW.

45. DNR has classified watercourses according to two stream-typing systems based on channel width, fish use, and perennial or intermittent status.
46. WAC 365-190-080(5) grants [the jurisdiction] the flexibility to make decisions in the context of local circumstances, and specifically excuses local jurisdictions from being required to protect "all individuals of all species at all time."