

## Jessi Roberts

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**From:** Ingram, Joel W (DFW) <Joel.Ingram@dfw.wa.gov>  
**Sent:** Monday, March 09, 2015 5:00 PM  
**To:** Cliff Strong  
**Subject:** Art 7 HCA reviewed and ready for distribution  
**Attachments:** Art 7 HCAs Revised Ingram 03-09-2015.docx

Cliff

Attached is Art7 HCA. This copy has edits and comments. Still fighting with formatting a bit something about the original source I used for the code.

Anyways, I may spend some time tweaking format but comments and edits complete.

### Joel Ingram

Washington Dept. Fish and Wildlife  
Habitat Program  
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## Jessi Roberts

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**From:** Ingram, Joel (DFW) <Joel.Ingram@dfw.wa.gov>  
**Sent:** Wednesday, September 24, 2014 11:15 AM  
**To:** Cliff Strong  
**Subject:** RE: Critical Areas Technical Advisory Committee meeting agenda 9/24

Cliff

Thanks for the clarification, I was wondering the same thing. I am just looking through some of the codes now and the areas in which staff and the CAT are having issue. I have contacted my main Landscape Planner in Olympia but have not received much direction. I am willing to meet but will not likely have much to share as far as areas of the code that I think need to be addressed.

I am winding down from a busy permit season and will be able to give this more attention in the upcoming weeks.

Let me know how you would like to proceed.

Joel

-----Original Message-----

From: Cliff Strong [<mailto:CStrong@co.whatcom.wa.us>]  
Sent: Wednesday, September 24, 2014 11:07 AM  
To: Dan McShane  
Cc: Ingram, Joel (DFW); Kara Kuhlman; Oliver Grah; Wendy Steffensen  
Subject: RE: Critical Areas Technical Advisory Committee meeting agenda 9/24  
Importance: High

My bad. 12:30. However, I just got a few cancellations. Looks like only you, me, Oliver and Joel can make it.

To the rest of you, can you confirm whether or not you can make it today? If only 3 of us it may not make sense to meet.

Thanks,

Cliff Strong  
Senior Planner  
Whatcom County Planning & Development Services

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-----Original Message-----

From: Dan McShane [<mailto:mcshanedan@gmail.com>]  
Sent: Wednesday, September 24, 2014 11:02 AM  
To: Cliff Strong  
Subject: Re: Critical Areas Technical Advisory Committee meeting agenda 9/24

Cliff:

The agenda says 1:30 or are we meeting at 12:30? I may have got cornfused.

On Fri, Sep 19, 2014 at 11:24 AM, Cliff Strong <[CStrong@co.whatcom.wa.us](mailto:CStrong@co.whatcom.wa.us)> wrote:

> Please find attached the agenda for next Wednesday's TAC meeting. And  
> remember, documents we'll be discussing are found at  
> <http://www.whatcomcounty.us/pds/plan/lr/projects/technicaladvisory.jsp>  
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> Thanks,  
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> Cliff Strong  
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> Senior Planner  
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> Whatcom County Planning & Development Services  
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>  
>  
> [cstrong@co.whatcom.wa.us](mailto:cstrong@co.whatcom.wa.us)  
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Dan McShane  
Stratum Group  
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Reading the Washington Landscape

## Jessi Roberts

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**From:** Ingram, Joel W (DFW) <Joel.Ingram@dfw.wa.gov>  
**Sent:** Friday, May 29, 2015 9:23 AM  
**To:** Cliff Strong  
**Cc:** 'George Boggs' (GBoggs@whatcomcd.org)  
**Subject:** RE: Critical Areas CAC agenda for 6/3/15

Cliff

In looking through some of the edits from this last round by the TAC, specifically section 16.16.710 (C)(1)(d), I looked up WAC 365-190-130 (2)(c) and it refers to commercial and recreational shellfish beds. Not what I think George was trying to convey. Reading through [WAC 365.190.130](#) I did not see any reference to drainage ditches. In order to make this section more clear I would prefer some written text that describes what ditches are and are not, instead of listing a WAC that then has to be cross referenced (one of Georges initial complaints). I think adding a section referring to drainage ditches in this section similar to what is found in the definitions is appropriate and should include language about being wholly artificial and does not include channels that resulted from the modification natural watercourses.

Thanks

### Joel Ingram

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**From:** Cliff Strong [<mailto:CStrong@co.whatcom.wa.us>]  
**Sent:** Thursday, May 28, 2015 4:21 PM  
**To:** Audrey Borders; David Haggith; Kate Blystone; Laura Sachs; Mark Personius; Roger Almskaar; Virginia Watson; Wendy Harris; Wes Kentch  
**Cc:** Bert Rubash; Dan McShane; Ingram, Joel W (DFW); Kara Kuhlman; Oliver Grah; Pete Sim; Ryan Ericson; Meyer, Susan (ECY); Wendy Steffensen; Amy de Vera; Analiese Burns; Dannon Traxler; David Onkels; Debbie Vander Veen; Dena Jensen ([dbobena@yahoo.com](mailto:dbobena@yahoo.com)); Dick Conaboy; [ebinney@pacificecologic.com](mailto:ebinney@pacificecologic.com); George Boggs; Max & Carole Perry; Michele; Pam Borso; Perry Eskridge; Vikki; Amy Dearborn; Andrew Wiser; Chris Elder; Erin Page; John Thompson; Matthew Mahaffie; Travis Bouma; Wayne Fitch  
**Subject:** Critical Areas CAC agenda for 6/3/15

Greetings CACAC,  
Attached is the agenda and materials for next week's meeting. See you there.

Thanks,

**Cliff Strong**  
Senior Planner  
Whatcom County Planning & Development Services

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## Jessi Roberts

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**From:** Ingram, Joel W (DFW) <Joel.Ingram@dfw.wa.gov>  
**Sent:** Monday, February 02, 2015 11:05 AM  
**To:** Cliff Strong  
**Subject:** RE: CAO question

Cliff

To my knowledge there is no State law lining out the 2 year guideline. There is a WA State RCW 77.36.030 related to removal of wildlife that is causing damage to property.

In my experience most of the beaver dams that I have dealt with during my time here at WDFW have been structures that have presumably been in place for longer than 2 years, based on size and vegetation growing in and along the beaver dam. Also, when removing or altering a beaver dam, there will undoubtedly be an impact on the size of potential rearing area, and short lived water quality impacts. Through the RCW previously stated, landowners or tenants have the right to remove wildlife when causing a problem. With beavers this action typically has limited effect, due to the natural productivity of beavers when their numbers are reduced; any remaining populations become more sexually active so that their offspring can re-colonize the area.

When thinking about removing this activity from the list of “activities allowed with notification” the main focus group to be affected will be the agricultural community and alter the requirements they face when attempting to keep drainage ditches and channels clear.

To Ryan’s comment any activity to remove or alter a beaver dam will require an HPA, regardless of age of the structure, 6 months, 1 year, 2 years or 10. WDFW sees a lot of these applications and has deemed this a fairly low risk activity so much that we have developed a Simplified Application process to reduce the amount of paperwork and pre-project requirements. WDFW has also allowed this activity under general HPA’s to WSDOT, cities and counties to be able to conduct this work if following BMPs.

I feel that by removing this section from “activities allowed with notification” and rolling all beaver dam work into the HCA section requiring a full blown CAO assessment, permitting, mitigation, monitoring and assignment of savings will make this process more onerous for landowners and increase costs without seeing much appreciable increase in habitat potential. These extra steps may actually have a detrimental effect on the ability of the CAO staff and compliance with the rules, resulting in more violations of the code.

Is this an area of the current code that CAO staff is having a problem with?

If you would like to talk more about this, I am available at my office number for the majority of the day.

Sorry for missing the meeting

## Joel Ingram

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**From:** Cliff Strong [<mailto:CStrong@co.whatcom.wa.us>]  
**Sent:** Thursday, January 29, 2015 3:13 PM  
**To:** Ingram, Joel W (DFW)  
**Subject:** CAO question

Joel, the TAC wrestled with the beaver issue yesterday, and needed your expert guidance. The comments are shown. Any input?

**16.16.235 Activities allowed with notification.**

- A. Alteration or removal of beaver-built structures two years old or less; provided, that:
1. There is no adverse impact to wetland or river or stream functions.
  2. The landowner can demonstrate that the structure will damage their property.
  3. The property owner obtains an HPA from WDFW prior to the maintenance activity.
  4. The property owner provides a copy of the HPA to the technical administrator as part of the written notification. (Ord. 2005-068 §1).

Thanks,

**Cliff Strong**  
Senior Planner  
Whatcom County Planning & Development Services

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## ARTICLE 7 HABITAT CONSERVATION AREAS (HCAs)

### 16.16.700 Purpose

The purposes of this article are to:

- A. Maintain fish and wildlife populations, ~~especially populations of anadromous fish species,~~ by protecting and conserving ~~valuable~~ fish and wildlife habitat and protecting the ecological processes that sustain these resources.
- B. Protect marine shorelines, valuable terrestrial habitats, and natural 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 avoided, ~~especially along riparian corridors.~~
- D. Maintain the natural geographic distribution, connectivity, and quality of fish and wildlife habitat.

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

- A. Habitat conservation areas are those areas identified as being of critical importance to the maintenance of certain fish, wildlife, and/or plant species. These areas are typically identified either by known point locations of specific species (such as a nest or den) or by habitat areas or both. All areas within the County meeting these criteria are hereby designated critical areas and are subject to the provisions of this article (see also Appendix D).
- B. The approximate location and extent of identified fish and wildlife habitat 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 determination. The County shall update the maps as new fish and wildlife habitat areas are identified.
- C. For purposes of this chapter, habitat conservation areas shall include all of the following:
  - 1. Streams. Streams shall be designated according to the following criteria:
    - a. Shoreline streams are those streams identified and regulated as shorelines of the state as defined by WAC 173-18-410 and designated in the Whatcom County Shoreline Master Program (WCC Title 23).
    - b. ~~Other~~ fish bearing streams that do not meet the definition of shorelines of the state but have known use or potential use by anadromous or resident fish species. The Technical Administrator shall make determinations of known or potential fish use in consultation with federal, state and tribal biologists and in accordance with Best Available Science. Factors of consideration when determining a stream as fish bearing include but are not limited to: and shall take into consideration factors such as species life cycle requirements, habitat suitability, channel gradient, presence or lack of fish passage barriers, stocked fish populations by government or tribal entities and/or a reasoned evaluation of current, historic, and potential fish use by a qualified

ARTICLE 7 – HABITAT CONSERVATION AREAS

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professional.

- c. Non-fish bearing streams are those streams that have no known or potential use by anadromous or resident fish.
2. Areas ~~in with~~ which federally and/or state listed species have been identified or the presence of suitable potential habitat for listed species. See Appendix D.~~have a primary association.~~
  3. State priority habitats and areas associated with state priority species.
  4. ~~Commercial and recreational shellfish areas, including designated~~ Shellfish Habitat Conservation Areas.
  5. Kelp and eelgrass beds.
  6. Surf smelt, Pacific herring, and Pacific sand lance documented and potential spawning areas.
  7. Naturally occurring ponds and lakes, under 20 acres in size.
  8. ~~Naturally occurring lakes over 20 acres and o~~All other waters defined as Waters of the State, including marine waters, ~~and waters planted with game fish by a government or tribal entity.~~
  9. Natural Area Preserves and natural resource conservation areas as defined by Washington Department of Natural Resources.
  10. Locally important species and habitats that have recreational, cultural, and/or economic value to citizens of Whatcom County, including the following:
    - a. Species
      - i. Osprey
      - ii. Turkey vulture
      - iii. Nooksack dace
      - iv. Salish sucker
    - b. Habitats
      - i. The Marine nearshore habitat 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 ordinary high water mark. Provided that reaches of the marine shoreline that were lawfully developed for commercial and industrial uses, prior to the adoption of this chapter, may be excluded from this designation, but not otherwise exempt from this chapter. See Appendix E.
      - ii. Identified elk wintering and calving grounds.
      - iii. Unique natural plant communities designated by the Washington Department of Natural Resources.

**Comment [JWI1]:** Defined in several RCWs as lakes, rivers, ponds, streams, inland waters, underground water, salt waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of the state, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Comment [JWI2]:** Consider removing species from this list and focus on habitat areas. Fish species and shellfish covered under other areas, terrestrial species could include black bear, deer, mountain lions, wolves, waterfowl and a variety of other species not found in Appendix D

ARTICLE 7 – HABITAT CONSERVATION AREAS

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iv. 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, (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. See Appendix E.  
~~Mountain including Lookout Mountain, Stewart Mountain, and the~~

**Comment [JW13]:** Clarification of corridor area. Also Stewart Mountain not included in graphic in Appendix E. Include?

~~northern portions of Anderson Mountain to Chuckanut Bay and the adjacent marine waters and represents the last remaining place in the Puget Trough where the natural land cover of the Cascades continues to the shore of Puget Sound. See Appendix E.~~

- D. In addition to the ~~species~~, habitats, and wildlife corridors identified in WCC 16.16.710.C.10, the County 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 d~~Declining population,
      - ii. ~~Documented species s~~Sensitivity to habitat manipulation,
      - iii. Commercial, recreational, cultural, or other special value, or
      - 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.

#### **16.16.720 Habitat Conservation Areas – General Standards**

The following activities may be permitted in habitat conservation areas and/or their buffers when all reasonable measures have been taken to avoid adverse effects on species and habitats, compensatory 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 16.16.730:

- A. Developments that meet the reasonable use and variance standards set forth in WCC 16.16.270.
- B. 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,

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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 Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement or identified in watershed planning documents prepared and adopted pursuant to RCW 90.82, the Salmonid Recovery Plan or the Salmon Recovery Board Habitat Project List or County Shoreline Restoration Plan.

C. Road, trail, bridge, and right-of-way crossings provided they meet the following criteria:

1. There is no other feasible alternative route with less impact on critical areas.
2. The crossing minimizes interruption of natural processes such as 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 the 100yr event and provide adequate horizontal clearance on each side of the ordinary high water mark, and~~ provide adequate vertical clearance ~~for debris likely to be encountered at high water above the ordinary high water mark.~~
3. Culverts shall be designed according to applicable state and federal guidance criteria for fish passage as identified in ~~Water Crossing Design Guidelines, WDFW 2013 Fish Passage Design at Road Culverts, WDFW March 1999,~~ and/or the National Marine Fisheries Service *Guidelines for Salmonid Passage at Stream Crossings*, 2000, (and subsequent revisions) and in accordance with a state Hydraulic Project Approval. The applicant or property owner shall maintain fish passage through the bridge or culvert.
4. 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 ~~and a feasible alternative exists.~~
5. ~~Culvert c~~ Crossings shall be limited to the minimum ~~width-length~~ necessary. ~~Shared c~~ common crossings are the preferred approach where multiple properties can be accessed by one crossing.
6. Access to private development sites may be permitted to cross habitat conservation areas if there are no feasible alternative alignments. Alternative access shall be pursued to the maximum extent feasible, including through the provisions of RCW 8.24. 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 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.~~

Comment [JW14]: Defined as the point when stream water leaves the channel and begins to inundate the surrounding floodplain.

D. Construction of a structure that is associated with an agricultural use; 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 existing agricultural

use.

2. There is no other feasible location with less impact to critical areas.
3. Clearing and grading activity and impervious surface are limited to the minimum

ARTICLE 7 – HABITAT CONSERVATION AREAS

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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.

E. Storm water 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:

1. The facility is located in the outer fifty percent (50%) of the standard stream buffer and does not displace or impact a forested riparian community;
2. There is no other feasible location for the storm water facility and the facility is located, constructed, and maintained in a manner that minimizes adverse effects on the buffer and adjacent critical areas;
3. The storm water facility meets applicable County or state storm water management standards and the discharge water meets state water quality standards; and
4. Low impact development approaches have been considered and implemented to the maximum extent feasible.

F. Storm water 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 determines that all of the following are met:

1. Due to topographic or other physical constraints, there are no feasible locations for these facilities outside the buffer;
2. The discharge is located as far from the ordinary high water mark as possible and in a manner that minimizes disturbance of soils and vegetation;
3. The discharge outlet is designed to prevent erosion and promote infiltration; and
4. The discharge meets freshwater and marine state Water Quality Standards, including 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.”

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

G. 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.

2. Appropriate erosion and sediment control measures shall be used at all times. The

**Comment [JW15]:** With special considerations for Water Resource Special Management Areas as described in WCC 20.80.735, Lake Sammish, Padden and Whatcom watersheds

soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, disturbed topsoil shall be redistributed to other areas of the site. Areas shall be revegetated as needed to stabilize the site.

3. The moisture-holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or re-establishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.

H. Stream bank stabilization and shoreline protection may be permitted subject to all of the following standards:

1. Natural shoreline processes will be maintained to the maximum extent practicable. The activity will not result in increased erosion and will not alter the size or distribution of shoreline or stream substrate, or eliminate or reduce sediment supply from feeder bluffs.
2. 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.
3. No adverse impact to critical fish or wildlife habitat areas or associated wetlands will occur.
4. No alteration of juvenile fish migration corridors will occur.
5. No net loss of intertidal or riparian habitat function will occur.
6. Non-structural 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.
7. Stabilization is achieved through bioengineering or soft armoring techniques in accordance with an applicable ~~H~~Hydraulic ~~P~~Permit Approval issued by the Washington Department of Fish and Wildlife.
8. 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.
9. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not a demonstration of need.
10. 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.

I. Construction of trails and roadways less than or equal to thirty (30) feet wide, 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:

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ARTICLE 7 – HABITAT CONSERVATION AREAS

1. There is no other feasible alternative route with less impact on the critical area.
2. 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.
3. ~~The road or trail in through a~~ riparian (stream) buffers shall be located in the outer fifty percent (50%) of the standard buffer. ~~except for limited viewing platforms and crossings; shall not exceed 12 feet in width and shall be made of pervious material where feasible.~~
- ~~4. Trails may include limited viewing platforms that shall not exceed 12 feet in width and shall be made of pervious materials where feasible.~~
- ~~4.5.~~ The road or trail is constructed and maintained in manner that minimizes disturbance of the buffer and associated critical areas.

Comment [JWI16]: This will result in a functional loss of habitat protection and should be mitigated for.

J. New utility lines and facilities may be permitted when all of the following criteria are met:

1. Impacts to fish and wildlife habitat shall be avoided to the maximum extent possible.
2. Where feasible, installation shall be accomplished by boring beneath the scour depth of the stream or water body and the width of the channel migration zone where present.
3. ~~The utilities shall cross streams. Trenching of utilities across a stream channel shall be conducted as at an angle greater than sixty (60) degrees to the centerline of the channel or~~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.
4. Crossings shall be contained within the footprint of an existing road or utility crossing where possible.
5. The utility installation shall not increase or decrease the natural rate, extent, or opportunity of channel migration.

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. Instream 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 SMP 23.110.W.10 or identified in watershed planning documents prepared and adopted under RCW 90.82, the Salmonid Recovery Plan or Salmon Recovery 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. Construction, reconstruction, repair and maintenance of docks and public or private launching ramps may be permitted subject to the following:

Comment [JWI17]: All lakes have public access to my knowledge and new private launches should not be permitted

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

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aquatic and terrestrial life; ecological processes; eelgrass beds, shellfish beds, spawning habitat, and wetlands.

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 adverse impact to critical fish or wildlife habitat areas or associated wetlands will occur.
  5. No alteration of juvenile fish migration corridors will occur.
  6. No net loss of intertidal or riparian habitat function will occur.
- N. On-site sewage disposal systems (OSS) may be permitted when accessory to an approved residential structure, for which it is not feasible to connect to a public sanitary sewer system and when operated and maintained in accordance with WCC 24.05.170, provided that adverse effects on water quality and slope stability are avoided.
- O. 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.A are met.
- P. All other developments may be allowed in Shellfish Protection Districts outside of actual shellfish habitats, when permitted by zoning and when the requirements of WCC 16.16.720.N are met.
- Q. Alteration or removal of beaver built structures more than two years old, provided that:
1. The applicant demonstrates that non-destructive measures, such as the use of "beaver deceivers" are not feasible. Beaver deceivers or auto leveler devices have been demonstrated to not appropriately resolve ponding / backwatering that is negatively affecting adjacent land or property.
  2. Impacts to wetland, river or stream functions are minimized and mitigation is provided to compensate for lost value.
  3. The property owner obtains a HPA from WDFW prior to initiating alteration or removal of the beaver built structure.
  4. The property owner provides a copy of the HPA to the Technical Administrator.

**Comment [JW18]:** RCW 77.36.030 authorizes the removal of wildlife (including beaver) that are negatively impacting property

**16.16.730 Standards – Locally Important Habitats and Species**

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

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species and habitats.

**16.16.740 Standards – Habitat Conservation Area Buffers**

The Technical Administrator shall have the authority to require buffers from the edges of all habitat conservation areas in accordance with the following:

A. 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 area by a road or other substantial developed surface.

B. Stream Buffers. 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 functions and values at the time of the proposed activity. When a buffer lacks adequate vegetation to protect critical area functions, the Technical Administrator may increase the standard buffer, require buffer planting or enhancement, and/or deny a proposal for buffer reduction or buffer averaging.

The standard buffer shall be measured landward horizontally on both sides of the stream from the ordinary high water 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 adjacent regulated wetland(s), landslide hazard areas and/or erosion hazard areas and required buffers, but shall not be extended across roads or other lawfully established structures or hardened surfaces. The following standard buffer width requirements are established, provided that portions of streams that flow underground may be exempt from these buffer standards at the Technical Administrator's discretion when it can be demonstrated that no adverse effects on aquatic species will occur:

1. Shoreline streams - 150 feet
2. Fish bearing streams - 100 feet
3. Non-fish bearing streams - 50 feet

C. Buffers for Other Habitat Conservation Areas. The Technical Administrator shall determine appropriate buffer widths for other habitat conservation areas based on the best available information. Buffer widths for non-stream habitat conservation areas shall be as follows:

Habitat Conservation Area	Buffer Requirement
Areas with which federally listed species have a primary association	Buffers shall be based on recommendations provided by the Washington 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
State Priority Habitats and areas with which Priority Species have a Primary Association	

**Comment [JW19]:** Existing roadway end buffer requirements. As per revision 16.16.720(3) allow new roadways within 50% of standard buffer. Overall reduction in buffer= loss. Truck road and Rutzatz Mosquito lake near acme, WDFW hatchery at Brainian Cr. as examples.

Roads or trails permitted under 16.16.720 I should not be considered as buffer break or the installation of roadway be mitigated for additional loss of buffer, 50% reduction.

**Comment [JW110]:** Does this happen?

**Comment [JW111]:** Agency working on new riparian buffer guidelines but won't be public until June 2016. Review of technical work conducted by other jurisdictions point towards buffers for all F streams based off of dominate climax community height. Here Doug Fir ~150FT.

WHATCOM COUNTY CRITICAL AREAS ORDINANCE

Habitat Conservation Area	Buffer Requirement
	recommendations of a qualified professional with appropriate expertise.
Commercial and recreational shellfish areas	Buffers shall extend one hundred-fifty (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.
Kelp and Eelgrass Beds	Buffers shall extend one-hundred fifty (150) feet landward from ordinary high water mark of the marine shore
Surf Smelt, Pacific Herring, and Pacific Sand Lance Spawning Areas	Buffers shall extend one-hundred fifty (150) feet landward from ordinary high water mark of the marine shore
Natural Pond and Lakes	Ponds under 20 acres - buffers shall extend 50 feet from the ordinary high water mark; Lakes 20 acres and larger - 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	<p>The buffer for marine nearshore habitats shall extent landward 150 feet from the ordinary high water mark.</p> <p>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 Department of Fish and Wildlife and other state, federal or Tribal experts in these instances, and may use WDFW PHS management recommendations when available.</p>

- D. The Technical Administrator shall have the authority to reduce buffer widths on a case-by-case basis, provided that the general standards for avoidance and minimization per 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:

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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 seventy-five (75) percent of the standard buffer as defined in WCC 16.16.740. **B and C**.
3. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed thirty percent (30%).

**Comment [JWI 12]:** Add protection of stream habitat conservation area buffer as well as items listed in chart.

E. 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 16.16.260.A(1)(a) and (b) shall apply, and when the applicant demonstrates to the satisfaction of the Technical Administrator that all 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.
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 seventy-five percent (75%) of the standard width as defined in WCC 16.16.740. **B and C**.
5. The slopes adjacent to the habitat conservation area within the buffer area are stable and the gradient does not exceed thirty percent (30%).
6. Buffer averaging shall not be allowed if habitat conservation area buffers are reduced pursuant to subsection D above.

**Comment [JWI 13]:** Same as comment 11

F. 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. 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. Compensate for degraded vegetation communities or steep slopes adjacent to the habitat conservation area.
4. Maintain areas for channel migration.
5. Protect adjacent or downstream areas from erosion, landslides, or other hazards.

6. Protect streams from high intensity adjacent land uses.

**16.16.750 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 buffer, or could adversely affect a habitat area or buffer, the Technical Administrator 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 shall require a critical areas assessment report or habitat management plan (HMP), provided that no report or evaluation shall be required for developments outside of buffers within the upland portions of Shellfish Conservation Areas. The Technical Administrator shall have the authority to waive the report requirement when he/she determines that the project is a single-family development that involves less than 0.5 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 area (nest trees, breeding sites, etc.) as indicated by a site plan or scaled drawing of the proposed development.
- B. The assessment report / HMP shall describe the characteristics of the subject property and adjacent areas. 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, review of public records, and interviews with adjacent property owners 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 determines that any portion of these requirements are is unnecessary given the scope and/or scale of the proposed development:
1. A map drawn to 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 150ft of the site. ~~abutting the site.~~
    - c. Proposed development activity.
    - d. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.
  2. An analysis 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 storm water management; proposed alteration to surface or subsurface hydrology; natural drainage or infiltration patterns; clearing and grading impact; temporary construction impacts; effects of increased noise, light or human intrusion.
  3. Provisions to reduce or eliminate adverse impacts of the proposed development

**Comment [JWI 14]:** This statement seems very loose for single family developments and offers no real protection. Discussion needed.

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activities including, but not limited to:

- a. Buffering and clustering of development,
- b. Retention of native vegetation,
- c. Access limitations,
- d. Seasonal restrictions on construction activities in accordance with the guidelines developed by the Washington Department of Fish and Wildlife, the US Army Corps of Engineers, the Salmonid Recovery Plan and/or other agency or tribe with expertise and jurisdiction over the subject species/habitat, and
- e. Other appropriate and proven low impact development techniques.

- 4. Management recommendations developed by WDFW through its PHS program.
- 5. When appropriate due to the type of habitat or species potentially present or the project area conditions, the Technical Administrator may also require that the report include additional information including, but not limited to, direct observations of species use or detailed surface and subsurface hydrologic features both on and adjacent to the site. The assessment of off-site conditions shall be based on available information and shall not require accessing off-site properties.
- 6. Bald eagle habitats shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC-232-12-292), the provisions of which require a cooperative Habitat Management Plan to be developed in coordination between the WDFW and landowner whenever projects that alter habitat are proposed within a nest territory or communal roost. The County shall issue development permits only after certification from the WDFW that the development is in compliance with an approved Habitat Management Plan.

C. All habitat management plans shall 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.

D. 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 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 Mitigation Standards for Habitat Conservation Areas**

Activities that adversely affect habitat conservation areas and/or their buffers as determined by the Technical Administrator shall include mitigation sufficient to achieve no net loss of habitat functions and values in accordance with WCC 16.16.260 and this section.

**Comment [JWI 15]:** Is this something that is done often, does the County want to leave this in code.

- 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 RCW 90.82, a Salmonid Recovery Plan or project that has been identified on the Salmon Recovery Board Habitat Project List or by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.
- B. The following additional mitigation standards shall apply:
1. Compensatory 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.
  2. Compensatory 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.
  3. 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).
  4. ~~Compensatory mitigation shall be provided on-site whenever feasible, or off-site mitigation in the location that will provide the greatest ecological benefit to the species and/or habitats affected and have the greatest 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 offsite mitigation is proposed the applicant must demonstrate through a watershed or landscaped based analysis that the mitigation will have a greater ecological benefit, within the same sub-basin, and in a similar habitat type as the permitted alteration unless the applicant demonstrates to the satisfaction of the Technical Administrator through a watershed- or landscape-based analysis that mitigation within an alternative sub-~~

**Comment [JWI116]:** Trying to get across the point that impacts and mitigation for HCA's should be considered on a smaller reach scale size of impacts and offsetting impacts. Loss of shade, LWD, leaf litter, bank hardening, substrate manipulation, erosion, sedimentation cannot be adequately offset at other locations = increased mitigation for offsite activities.

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~~basin of the same watershed would have greater ecological benefit.~~

5. All mitigation sites shall have buffers consistent with the buffer requirements-  
~~established in 16.16.740 B and C of this chapter~~, 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. Mitigation actions shall not create buffer encumbrances on adjoining properties.
6. The Technical Administrator shall have authority to 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. The frequency and duration of the monitoring shall be based on the specific needs of the project as determined by the Technical Administrator.
7. 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~~.
8. Mitigation projects involving instream work including, but not limited to, installation of large woody debris shall be designed to ensure there are no adverse hydraulic effects on upstream or downstream properties. The County River and Flood Division shall review any such mitigation projects for compliance with this provision.

Comment [JWI17]: Notice on Title of Record?