

WHATCOM COUNTY COUNCIL AGENDA BILL

NO. 2016-276F

CLEARANCES	Initial	Date	Date Received in Council Office	Agenda Date	Assigned to:
Originator: Cliff Strong	<i>CS</i>	12/27/2016	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>RECEIVED</p> <p>JAN 03 2016</p> <p>WHATCOM COUNTY COUNCIL</p> </div>	1/10/2017	COTW
Division Head: Mark Personius	<i>MP</i>	12/29/16			
Dept. Head: Sam Ryan	<i>SR</i>	12/29/16			
Prosecutor: Royce Buckingham	<i>RB</i>	12-29-16			
Purchasing/Budget:					
Executive: Jack Louws	<i>JL</i>	1/3/17			

TITLE OF DOCUMENT:

2016 Critical Areas Ordinance Update - Article 5.5 - Lummi Island

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 12/20/2016

SEPA review required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO SEPA review completed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO	Should Clerk schedule a hearing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO Requested Date:
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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.

COMMITTEE ACTION:

COUNCIL ACTION:

Related County Contract #:

Related File Numbers:

Ordinance or Resolution Number:

Please Note: Once adopted and signed, ordinances and resolutions are available for viewing and printing on the County's website at: www.co.whatcom.wa.us/council.



Memorandum

TO: The Honorable County Council
 Jack Louws, County Executive

FROM: Cliff Strong, Senior Planner *CS*

THROUGH: Mark Personius, Asst. Director *MP by DP*

DATE: December 20, 2016

SUBJECT: 2016 Critical Areas Ordinance Update
 County Council Review, Workshop 2, 10 January 2017

On January 10th the Council will continue its review of the 2016 Critical Areas Ordinance Update. Topics to be covered include:

- Anticipated Schedule
- A note about changes proposed post-Planning Commission recommendation
- Overview of Certain Proposed Amendments to:
 - Global Changes
 - Article 1 – Purpose
 - Article 2 – Administrative Provisions
 - Article 5 – Critical Aquifer Recharge Areas
 - Article 5.5 – Lummi Island
 - Article 9 – Definitions

Anticipated Schedule

Date	Topic(s)
9/20/16	• Overview
10/25/16	• Public Hearing
1/10	<ul style="list-style-type: none"> • Article 1 – Purpose • Article 2 – Administrative Provisions • Article 5 – Critical Aquifer Recharge Areas • Article 5.5 – Lummi Island • Article 9 – Definitions
1/24	<ul style="list-style-type: none"> • Article 4 – Frequently Flooded Areas • Article 7 – Habitat Conservation Areas
2/7	<ul style="list-style-type: none"> • Article 6 – Wetlands • Article 8 – Conservation Program on Agriculture Lands
2/21	• Article 3 – Geologically Hazardous Areas
3/7	• Review of Any Outstanding Issues
3/21	• Introduction of Ordinance
4/11	<ul style="list-style-type: none"> • Public Hearing • Adoption

Changes Proposed Post-Planning Commission Recommendation

There have been a few issues brought to staff's attention since the Planning Commission made their recommendation that we would like the Council to consider. Some are still being worked on so can't all be listed now, but staff will point out these proposed amendments as we progress through the chapters.

Remember the Supporting Materials

Please remember that there is supporting documentation on the CAO Update webpage for your reference and consideration. These include:

- 2005 Best Available Science Report
- 2016 Best Available Science Supplemental Report
- Best Available Science studies
- Written comments provided prior to the Planning Commission action from the Citizens Advisory Committee, the Technical Advisory Committee, staff, and the public (public comments received since are found on the Council's website)

All these are posted on the CAO Update website:

<http://www.whatcomcounty.us/2417/County-Council-Review> (or to navigate to it: Home > Your Government > Departments > Planning & Development Services > Planning > Long Range Planning > Projects & Programs > Critical Areas Update > County Council Review)

Proposed Amendments

Global Changes

Remember from the overview workshop that in general, many of the amendments pertain to:

- Correcting grammar
- Updating references to other documents or laws
- Clarifying procedures
- Moved a few subsections to sections they seemed to fit into better.
- Separated a few larger sections into distinct sections
- Many of the "mays" are proposed to be changed to "shalls"

Article 1 – Purpose

- No proposed changes

Article 2 – Administrative Provisions

WCC Section	Proposed Amendment
Throughout	Many of the "mays" are proposed to be changed to "shalls," as it is believed that, in instances where the language spoke to the Technical Administrator, less discretion should be afforded due to a perceived history of previous staff being too lenient.

WCC Section	Proposed Amendment
16.16.230	Exempt activities. Moved tree felling activities from Exempt Activities to 16.16.235(B)(4) Activities allowed with notification, as a tree risk assessment is a submittal requirement to determine if a tree meets the definition of Hazard Tree.
16.16.230(G)	Exempt activities. Moved restoration activities to Exempt Activities (from Activities allowed with notification), as these types of activities are exempt per RCW 77.55.181(4)).
16.16.235(B)(8)	Activities allowed with notification. Deleted the use of pesticides in buffers as an "Activity allowed with notification" since insects are important to the food chain. Also clarified that herbicides only be allowed for eradicating invasive species, not native plants.
16.16.240(A)(2) & (C)(2)	Technical administrator and hearing examiner authority. Proposed amendment would give the Technical Administrator decision-making authority over all Reasonable Use Permits for single-family residential uses, including those in geohazard area, so as to minimize cost to the typical homeowner.
16.16.250	Submittal requirements and critical areas review process. Amended section to reflect process developed under Kaizan review procedures and now used.
16.16.260	General mitigation requirements. Though mitigation sequencing has always been a requirement, and that alternatives and cumulative impacts be analyzed, the code wasn't clear that these should be explicitly addressed. Amendments to this section make that more clear.
16.16.260(E)	General mitigation requirements. Added a paragraph explicitly stating that mitigation areas are to be permanently protected, though that if future development is proposed on the mitigation site, any restrictions can be removed as long as the final plan meets the requirements of this chapter for all cumulative impacts.
16.16.261, 262, and 263	Three different alternative mitigation strategies (Alternative or Innovative Mitigation Plans, Watershed-Based Management Plans, and Mitigation Banking) were contained in one section. These have been broken into three sections now, and a new section 263(D) (Use of Bank Credits) added based on DOE guidance.
16.16.264	In-Lieu Fees. Added a new section to allow an in-lieu fee program be set up. This language, which comes from DOE guidance documents, allows for such a program to be established.
16.16.265(B)	Critical areas protective measures. Added language that would allow the Technical Administrator to waive the notice on title requirement for certain, low risk geohazards.
16.16.265(E)	Critical areas protective measures. Added a requirement that applicants indemnify the County when a permit is granted for development or use within a geologic, flood, or other hazard area.
16.16.265(F)	Critical areas protective measures. Added a paragraph notifying applicants that temporary protection measures are required during construction.

WCC Section	Proposed Amendment
16.16.270 and 16.16.273	Reasonable use and Variances. In the existing code, the rules for reasonable use permits and variances are contained in the same section. However, these are very different mechanisms, and it was thought they each deserve their own section so were split. Most changes in these sections have to do with separating them out.
16.16.270(B)(2)(g & h)	Reasonable use. Split g & h into two sections. Amended (g) to state that any proposed activities won't cause damage to other properties, and (h) to state that the activities won't increase risk, as opposed to guarantee no threat, which is an impossibility (earthquakes and other geohazards may still happen; no one can guarantee they won't).
16.16.270(B)(2)(k)	Reasonable use. PDS Administrative Policy PL5-85-001A (CAO Reasonable Use/SMP Variance (has been incorporated into the code. This policy sets the Maximum Impact Area of 2,500 sf for CAO reasonable uses and Shoreline Management Program variances and has been in place since 4/17/08.
16.16.280	Appeals. Amended the language to require that any issues brought on appeal to the courts were raised and heard by the County's appeal body first. This is a standard legal practice for appeals these days.
16.16.285(l)	Penalties and enforcement. Added an "After the Fact Permit Fee." Charging "after the fact" fees is consistent with how PDS handles "atf" building permits. It should be cheaper to ask for permission than forgiveness.
16.16.290	Conservation program on agricultural lands. The CPAL provisions (290 and Appendix A) have been combined and moved to a new Article 8.

Article 5 – Critical Aquifer Recharge Areas

- No proposed changes other than a cross-reference

Article 5.5 – Lummi Island

- No proposed changes other than grammatical

Article 9 – Definitions

Adding definitions of:

- "Bankfull width"
- "Cumulative Impact"
- "Designated Species, Federal" "Designated Species, State"
- "Habitats of Local Importance" (from WAC 365-190-030)
- "Maximum Credible Event"
- "Practicable Alternative"
- "Species of Local Importance" (from WAC 365-190-030)
- "Stormwater Manual" (referred to throughout as a source for Best Management Practices)
- "Waters of the State" (from RCW 90.56.010(26))

Amending definitions of:

- "Critical Facilities" to keep maximum occupancy of uses under 500 and to exclude cell towers from the definition (needed if an emergency occurs)
- "Drainage Ditch" to try to clear up the public confusion between ditches and streams
- "Fish and wildlife habitat conservation areas" as the state definition has been amended (*amended since the P/C recommendation*)
- "Geologically Hazardous Areas" to make consistent with the GMA definition in RCW 36.70A.030(9)
- "High Intensity Land Use" to include Class IV Special forest practices (conversion of forest to development)
- "Hydric Soil" by changing the reference to that commonly used now
- "Moderate Intensity Land Use" to exclude nurseries and logging roads, both of which the TAC believe should be in the high intensity land use category
- "Planning Advisor," rather than "Qualified Planning Advisor" ("qualified" is not used in the text so it was hard to find in the definitions.)
- "Qualified Professional" to increase the years of professional experience needed for wetland biologist from 3 to 5 years, and to exclude those consultants who've had their certification revoked
- "Reestablishment," "Rehabilitation," and "Restoration" to make consistent with USACE definitions

ARTICLE 5.5. AREAS WITHIN THE RURAL RESIDENTIAL DISTRICT OF LUMMI ISLAND

16.16.540 Areas within the rural residential district of Lummi Island.

16.16.541 Exempt wells.

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

16.16.542 Minimum well spacing for all new wells.

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

16.16.543 Requirements for public water system wells, non-Group B two party wells and nondomestic wells.

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

A. Chloride Monitoring and Testing.

1. Monitoring. Well owners shall collect and have water samples analyzed for chloride concentration twice annually, in April and August, and submitted to the Whatcom County health department.
2. Chloride Determinations for New Wells or Increased Pumping of Existing Wells. Applications for new wells, applications to convert an existing private well into a two party well, any application to expand the number of connections of a public water system, and nondomestic use wells proposing greater than ~~20% percent~~ increase in groundwater withdrawals in an existing well require a minimum 24-hour-duration pumping test at ~~100% percent~~ of the proposed average daily demand, at the end of which a water sample will be collected for analysis of chloride concentration. Subdivisions using individual wells are required to test wells simultaneously, or alternatively have a licensed hydrogeologist evaluate well interference and water quality changes. Subdivision wells shall remain accessible for future testing in the event of subdivision expansion.
3. Restrictions on New Wells or Increased Pumping of Existing Wells. New wells cannot be permitted, existing private wells cannot be converted to two party wells, existing public water systems cannot expand beyond their existing number of approved connections, and nondomestic wells cannot increase pumping rates greater than ~~20% percent~~ if chloride concentrations measured at the end of the test specified in subsection (A)(2) of this section are greater than 100 mg/L. For systems expanding ~~20% percent~~ or less within one year, the highest chloride determination within the past year in subsection (A)(1) of this section cannot be greater than 100 mg/L.
4. Limit on Water Use by Existing Wells. Any increase (~~zero-0 to 20%-percent~~) in water use will not be permitted if either semi-annual analysis in the previous 12-month period indicates greater

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

30 **16.16.544 Administrative waiver.**

31 Administrative waivers may be granted to any section of these requirements by petition to the adminis-
 32 tering agency. Waiver request must demonstrate that the project is consistent with the intent of these
 33 requirements; no health hazard would result from this action, and must be stamped by a licensed Wash-
 34 ington State hydrogeologist.

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PROPOSED FINDINGS OF FACT

(AS ADOPTED BY THE PLANNING COMMISSION)

Whatcom County Critical Areas Ordinance Update 2016

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.
23. Wetlands are identified according to 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, and rated according to the *Washington State Wetland Rating System for Western Washington*, revised 2014, prepared by the Washington State Department of Ecology (Ecology).

24. The scientific literature supports the inclusion of protective buffers of relatively intact native vegetation from wetlands to adequately protect wetland functions and values.
25. Appropriate wetland mitigation ratios—ratios of areas of wetland replacement and enhancement to that altered or destroyed—are established in *Wetland Mitigation Replacement Ratios: Defining Equivalency*, published by Ecology, 1992, and *Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands*, Ecology Publication 05-06-008, April 2005.

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.
31. Guidance Document for Establishment of Critical Aquifer Recharge Area Ordinances, by Ecology, 2000, includes scientific recommendations for protecting ground water, including limiting certain uses and the intensity of development in critical aquifer recharge areas.

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."