
Ecology Feedback on Sumas CAO Draft (PlanView Submittal ID #2025-S-9793)

From Atkins, Emily (ECY) <eatk461@ECY.WA.GOV>

Date Wed 10/15/2025 3:24 PM

To Carson Cortez <CCortez@cityofsumas.com>

 1 attachment (82 KB)

ECYCommentsSumas_Draft CAO 8.26.2025.docx;

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Carson Cortez,

Thank you for submitting Sumas' draft CAO to PlanView and giving Ecology the opportunity to provide feedback as part of the review period. We have provided our initial feedback on the wetland related provisions below and have the same comments attached to this email as inline comments to make review easier. Most of our feedback is based on our [Wetland Guidance for Critical Area Ordinance \(CAO\) Updates: Western and Eastern Washington](#) which contains both guidance and sample ordinance language we recommend to local jurisdictions.

15.20.090 Exemption from critical area review requirements.

A.1. Ecology recommends including a time limit for restoration, rehabilitation, or replacement of a critical area damaged or altered by emergency activities; for example, the restoration must be initiated within one year of the date of the emergency and completed in a timely manner. This it help prevent temporal loss of wetland functions and values.

15.20.220 Land clearing and forest practices.

A. Class IV general forest practices should also be regulated by your CAO. Class IV activities constitute an intentional conversion from forestry to some other use. The local government should attach permit conditions as needed to ensure forest practice permits are consistent with CAO wetland and buffer protections. Restoration actions (e.g., replanting, road removal, etc.) may be necessary to achieve compliance. You might consider including some language addressing this for clarity.

15.20.230 Critical area mitigation—Generally.

A. The mitigation sequence is missing the final monitoring step that is outlined in WAC 197-11-768. Please include the final step:

“6. Monitoring the impact and taking appropriate corrective measures.”

15.20.280 Wetlands—Detailed study requirements.

A. You might consider defining what criteria meet a “qualified wetland biologist” in order to make sure quality work on wetland reports and delineations are done. Consider using recommended criteria from Ecology’s guidance document:

should be limited to pervious surfaces no more than five (5) feet in width and designed for pedestrian use only. Raised boardwalks utilizing non-treated pilings may be acceptable. "

15.20.480 Definitions.

"Agriculture" or "agricultural activities"- If agricultural activities are idle for more than five years we recommend that your critical area ordinance should apply since the land is no longer being used for agriculture. In your exemptions agriculture is mentioned and we would recommend the following definition from our guidance to address what existing and ongoing might mean:

***"Agricultural activities, existing and ongoing:** Those activities conducted on lands defined in RCW 84-34-020(2), and those activities involved in the production of crops and livestock, including but not limited to operation, maintenance and conservation measures of farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and normal operation, maintenance or repair of existing serviceable structures, facilities or improved areas. Activities that bring an area into agricultural use are not part of an ongoing activity. An operation ceases to be ongoing when the area in which it was conducted is proposed for conversion to a nonagricultural use or has lain idle for a period of longer than five years, unless the idle land is registered in a federal or state soils conservation program. "*

We hope this feedback will be useful as Sumas continues to work on the CAO update process. If you would like to go over our recommendations to address any concerns you might have please let me know. We would be happy to set up a meeting.

Best,

Emily Atkins

She/Her

Critical Areas Ordinance Coordinator

Shorelands and Environmental Assistance Program

WA State Dept of Ecology

emily.atkins@ecy.wa.gov | 360-628-6680

15.20.180 Application and fees.

15.20.190 Threshold determination.

15.20.200 Detailed study.

15.20.210 Final determination.

15.20.220 Land clearing and forest practices.

15.20.230 Critical area mitigation—Generally.

15.20.240 Bonding.

15.20.250 Frequently flooded areas.

15.20.260 Wetlands—Designation and classification.

15.20.270 Wetlands indicators.

15.20.280 Wetlands—Detailed study requirements.

15.20.290 Wetlands—Performance requirements.

15.20.300 Wetlands—Mitigation requirements.

15.20.310 Allowed activities in wetlands, streams, and buffers.

15.20.320 Fish and wildlife habitat conservation areas—Designation.

15.20.330 Fish and wildlife HCA indicators.

15.20.340 Fish and wildlife habitat conservation areas—Detailed study requirements.

15.20.350 Fish and wildlife habitat conservation areas—Performance requirements.

15.20.360 Fish and wildlife habitat conservation areas—Mitigation requirements.

15.20.380 Geologically hazardous areas classification and designation.

15.20.390 Geologically hazardous areas indicators.

15.20.400 Geologically hazardous areas detailed study requirements.

15.20.410 Geologically hazardous areas performance requirements.

15.20.420 Aquifer recharge area designation.

15.20.430 Aquifer recharge area detailed study requirements.

15.20.440 Aquifer recharge area performance requirements.

15.20.445 Variances.

15.20.450 Reasonable use exceptions.

- A. The regulations contained in this chapter shall apply as an overlay to other regulations established by the city. In the event of any conflict between these regulations and any other regulations, the more restrictive shall apply.
- B. Regulation of frequently flooded areas as required by Chapter 36.70A RCW and Chapter 365-190 WAC is primarily provided through the flood damage prevention ordinance codified in Chapter 14.30 of the Sumas Municipal Code. See Section 15.20.250 for additional regulations applicable within frequently flooded areas.
- C. Regulation of most wetlands is provided through the shoreline master program codified in Chapter 15.04. See Section 15.20.050, which addresses applicability of this chapter within shoreline jurisdiction.
- D. Regulation of most fish and wildlife habitat conservation areas and riparian wildlife habitat conservation areas is provided through the shoreline master program codified in Chapter 15.04. See Section 15.20.050, which addresses applicability of this chapter within shoreline jurisdiction.
- E. Compliance with the provisions of this chapter shall not be construed as constituting compliance with any other applicable regulation.
- F. These regulations are additional to, and coordinate with, the Sumas comprehensive plan, the shoreline master program, the flood damage prevention ordinance, and other applicable regulations adopted by the city of Sumas.

15.20.050 Applicability and jurisdiction.

This chapter shall apply to all land and water areas, all land uses and development, and all structures and facilities within the city of Sumas, except as specifically exempted under Section 15.20.090; provided, that upon the effective date of an updated shoreline master program adopted by the city and approved by the Washington Department of Ecology pursuant to Chapter 90.58 RCW and Chapter 173-26 WAC, this chapter shall only apply to those areas within the city lying outside of shoreline jurisdiction as established in Chapter 15.04, except to the extent that specific provisions contained herein have been incorporated by reference into the updated shoreline master program.

15.20.070 Authorization required.

- A. No development activity or alteration of land, water or vegetation within a critical area or its standard buffer, except as specifically allowed under Section 15.20.090, shall be allowed without prior authorization from the zoning administrator. Said authorization shall document compliance with the procedural and substantive requirements of this chapter.
- B. The city of Sumas shall ensure that the provisions of this chapter are applied in conjunction with review of applications for the following permits and approvals:
 - 1. Building permit;
 - 2. Conditional use permit;
 - 3. Fill and grade permit;
 - 4. SEPA determination;

period of time too short to allow full compliance with this chapter. The person or agency undertaking such emergency action shall notify the zoning administrator within one working day or as soon as practical following commencement of the emergency activity. Following such notification, the zoning administrator shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the zoning administrator determines that the action taken or any part of the action taken was beyond the scope of allowed emergency actions, then the enforcement provisions of Section 15.20.460 shall apply. The approval of an exemption for an emergency activity does not eliminate the need for later mitigation to offset the impacts of the activity. Once the immediate threat has been addressed, any adverse impacts on critical areas must be minimized and mitigated.

2. Existing activities defined as ongoing agriculture, including related development and activities which do not result in expansion into a critical area or its standard buffer.
3. Normal and routine maintenance or repair of existing structures, utilities, sewage disposal systems, potable water systems, drainage facilities, ponds, or public and private roads and driveways associated with existing residential or commercial development.
4. Normal maintenance, repair, or operation of existing structures, facilities, and improved areas accessory to a single-family residential use.
5. Modification of any existing residence that does not add to or alter the existing use and does not expand the building footprint or increase septic effluent.
6. Construction of a residential structure upon the following soil classifications is exempt from review as a geologically hazardous area; provided, that the structure is designed in accordance with the Sumas building code as adopted in Chapter 14.02: 107 Mt. Vernon fine sandy loam, 123 Puget silt loam, 22 Briscot silt loam, 115 Oridia silt loam, 162 Sumas silt loam.
7. Activities involving artificially created wetlands or artificial watercourses intentionally created from nonwetland sites, including, but not limited to, grass-lined swales, irrigation and drainage ditches, stormwater detention facilities, and landscape features, except those features which were created as mitigation pursuant to city, state, or federal regulations.
8. Outdoor recreational activities which do not adversely impact critical areas or their buffers.
9. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling soil, planting crops, or changing existing topography, water conditions or water sources.
10. The lawful operation and maintenance of public and private diking and drainage systems which protect life and property; provided, that the activity does not further drain wetlands or further encroach on critical areas or their buffer. Maintenance of agricultural ditches should be limited to removing sediment in existing ditches to a depth equal to the depth at date of last maintenance.
11. Education and scientific research activities which do not adversely impact critical areas or their buffers.

Commented [EA1]: Ecology also recommends including a time limit for restoration, rehabilitation, or replacement of a critical area damaged or altered by emergency activities; for example, the restoration must be initiated within one year of the date of the emergency and completed in a timely manner. This it help prevent loss of wetland functions and values over time.

2. The subsequent construction activity complies fully with the conditions established as part of the initial land use approval; and
 3. No substantial changes in the nature or extent of the approved activity have been made.
- B. B. Requests for such waivers shall be submitted in writing to the zoning administrator and shall include the following:
1. Description of the proposed activity and citation of the previous approval;
 2. Identification of any changes in the nature or extent of the proposed activity subsequent to the previous approval; and
 3. Documentation of compliance or substantiation of plans for compliance with all critical areas conditions imposed as part of the previous approval.
- C. The zoning administrator shall review the waiver request and shall certify or reject the request based on demonstration of compliance with this chapter.
- D. A copy of the waiver request and subsequent determination shall be included in the file for the proposed construction activity.

15.20.105 Critical area maps.

- A. In conjunction with adoption of this chapter, the city council shall adopt maps indicating the locations of known or potential aquifer protection areas, geologically hazardous areas, and upland wildlife habitat conservation areas within the city of Sumas. These maps shall be based on the best available scientific information and shall include natural resource information gathered through field inventory, as well as information prepared by state and federal natural resource agencies. These maps shall be hereafter referred to as the "critical area maps" of the city of Sumas. These maps shall be updated periodically to reflect new information and shall be made available to the public upon request.
- B. The critical area maps shall be utilized as a source of generalized information and shall not be considered as absolute regulatory standards or as substitutes for site-specific assessment. The actual type, extent and boundaries of critical areas shall be determined by a qualified consultant on a site-specific basis according to the provisions established in this chapter.

15.20.180 Application and fees.

For any proposed activity not found to be exempt pursuant to Section 15.20.090, the applicant shall provide critical areas information in conjunction with an application for any of the permits or approvals identified under Section 15.20.070(B). Such information shall be submitted on forms provided by the city. Minimum fees for processing of critical areas review and other services provided pursuant to this chapter shall be as established in Chapter 20.108. In addition to the established minimum fees, the applicant shall pay any cost incurred by the city for services provided by a qualified consultant retained by the city to perform critical areas review.

15.20.190 Threshold determination.

setback will be impacted by the proposed activity. All such findings shall be made in writing and shall be included in the project file.

15.20.210 Final determination.

- A. Following submission of a detailed study that is both complete and accurate, the zoning administrator shall make a final written determination. The determination shall address the adequacy of the project, as proposed, to mitigate potential effects on the critical areas in question and to comply with applicable performance requirements. The determination shall be either favorable or unfavorable.
- B. A favorable determination shall be issued only if the proposed project is found to adequately mitigate its impacts on the critical areas and to comply with applicable performance requirements.
- C. An unfavorable determination shall be issued if it is found that the proposed project does not adequately mitigate its impacts to critical areas and/or does not comply with applicable performance requirements. The determination shall indicate the reasons for the finding and the areas of noncompliance. This determination may (at the zoning administrator's discretion) include recommendations for bringing the proposal into compliance. In response to an unfavorable determination, the applicant may request reconsideration of a revised mitigation plan. If the revisions are found to be substantial and relevant to the critical area review, the zoning administrator may reopen the review and make a new determination.
- D. If at any time prior to issuance by the city of an associated permit or approval, the zoning administrator receives reliable new information that a critical area may be impacted by the proposed activity, then the critical area review process shall be reopened pursuant to this chapter.
- E. Once all associated permits and approvals have been issued by the city, the final determination may not be reopened by the city and shall be considered final unless appealed pursuant to Section 20.08.150.

15.20.220 Land clearing and forest practices

- A. Forest Practice Permits. Development activities that include land clearing meeting the definition of forest practices pursuant to Chapter 76.09 RCW shall obtain all required forest practice permits from the Washington Department of Natural Resources, including, where applicable, a Class IV General Permit. Copies of such permits shall be provided to the City prior to commencing land-disturbing activities.
- B. SEPA Review. Except where found to be exempt pursuant to WAC 197-11-800, all land clearing activities including regulated forest practices, shall require review pursuant to RCW 43.21C, the State Environmental Policy Act (SEPA).
- C. NPDES Permit Coverage. Where applicable, all land-disturbing activities shall obtain coverage from the state Department of Ecology under the National Pollution Discharge Elimination System (NPDES) for stormwater discharges during construction. Proof of all

Commented [EA2]: Class IV general forest practices should also be regulated by your CAO. Class IV activities constitute an intentional conversion from forestry to some other use. The local government should attach permit conditions as needed to ensure forest practice permits are consistent with CAO wetland and buffer protections. Restoration actions (e.g., replanting, road removal, etc.) may be necessary to achieve compliance. You might consider including some language addressing this for clarity.

- C. The bond shall be in the amount of one hundred twenty-five percent of either the estimated cost of the uncompleted mitigation measures, or the estimated cost of restoring the functions and values of the critical areas at risk, whichever is greater.
- D. The period of the bond shall be three years, or until the additional activity or construction has been completed and passed the necessary inspections, whichever is longer.

15.20.250 Frequently flooded areas.

- A. Designation. Frequently flooded areas shall include those areas mapped by the Federal Emergency Management Agency (FEMA) as being within the one-hundred-year floodplain as shown on the adopted flood insurance rate maps prepared by FEMA. Such areas are also referred to as areas of special flood hazard.
- B. Regulation. Development within frequently flooded areas shall be pursuant to the flood damage prevention ordinance now codified as Chapter 14.30.
- C. Notification. All documents recorded with the county auditor in conjunction with subdivisions or other developments approved within frequently flooded areas shall include the following notification:

This property is located in an area that may be subject to inundation by floodwaters. For further information regarding this hazard, contact the Federal Emergency Management Agency, the Whatcom County Emergency Management Division or the city of Sumas.

- D. Residential Construction. Except where authorized below, new residential construction shall not utilize slab-on-grade construction, but shall utilize alternative construction methods intended to minimize impacts to flood storage volumes. The building official may permit slab-on-grade construction for at-grade construction of garages and where residential construction using foundation walls and flood vents is not feasible, such as in situations where the base flood elevation at the site is less than one foot above the existing grade. The limitation set forth in this subsection shall be in addition to, and shall not supersede, the requirements established in Chapter 14.30, Flood Damage Prevention.

15.20.260 Wetlands—Designation and classification.

- A. Designation. Wetlands shall be identified and delineated according to the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0, 2010 or as revised) or currently approved federal manual and supplements.
- B. Rating (Classification). Wetlands shall be rated (classified) as Category I, Category II, Category III, or Category IV based upon Washington State Department of Ecology's Wetlands Rating System for Western Washington (2014) or most recent update.

15.20.270 Wetlands indicators.

and values of the subject wetland and buffer or that all impacts to these areas will be fully mitigated. The following requirements shall apply:

1. Category I Wetlands. Regulated activities are prohibited within a Category I wetland and its standard buffer. Buffer reductions are prohibited.
 2. Category II Wetlands. Regulated activities are prohibited within a Category II wetland and its standard buffer. Reduction of the standard buffer adjacent to a Category II wetland shall be permitted only where consistent with subsection E of this section, and only when all impacts are compensated at the expense of the developer through implementation of a mitigation plan prepared by a qualified wetland biologist consistent with the requirements set forth in Section 15.20.300.
 3. Category III Wetlands. Regulated activities are prohibited within a Category III wetland and its standard buffer, except as follows. Filling of a Category III wetland or reduction of the standard buffer adjacent to a Category III wetland shall only be permitted where consistent with subsection E of this section, and only when all impacts are compensated at the expense of the developer through implementation of a mitigation plan prepared by a qualified wetland biologist consistent with the requirements set forth in Section 15.20.300.
 4. Category IV Wetlands. Regulated activities are prohibited within a Category IV wetland and its standard buffer, except as follows. Filling of a Category IV wetland or reduction of the standard buffer adjacent to a Category IV wetland shall only be permitted where consistent with subsection E of this section, and only when all impacts are compensated at the expense of the developer through implementation of a mitigation plan prepared by a qualified wetland biologist consistent with the requirements set forth in Section 15.20.300.
- B. **Buffers.** Buffers are upland areas adjacent to wetlands that are intended to provide sufficient separation between the aquatic feature and the surrounding areas and uses to protect the wetlands from disturbance from human activities. Buffers also provide vital upland habitat for wildlife species that require wetlands as part of their life cycle. Buffers shall be measured horizontally in a landward direction from the delineated wetland edge; provided, that wetland buffers shall not extend into and beyond substantially improved surfaces, such as lawfully established structures and impervious surfaces.
- C. **Standard Buffers.**
1. **Standard Buffers Where No Minimizing Measures Are Required.** The following standard buffers shall be established for all wetlands where no minimizing measures are required based on classification (rating) and level of function for wildlife habitat. Standard buffers are assumed to be comprised of an intact native vegetation community.

Wetland Category	Buffer width (in feet) based on habitat score			
	3 - 4	5	6 - 7	8 - 9
Category I (based on total score)	100	140	220	300
Category II (based on total score)	100	140	220	300
Category III (based on total score)	80	140	220	300
Category IV (based on total score)	50	50	50	50

Commented [EA5]: Our guidance's recommended buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer must either be planted to create the appropriate native plant community or be widened to ensure that the buffer provides adequate functions to protect the wetland. You might included language that makes this clear.

Commented [EA6]: These buffer widths are based on our previous 2016 buffer guidance. In 2018 we updated our habitat score range recommendations where low is now 3-5 and moderate is 6-7. You might consider looking at the 2022 wetland guidance for CAOs where we have new tables reflecting this change. Otherwise your buffer tables do look consistent with past Ecology guidance.

We also now recommend in the updated guidance that in order to use the smaller widths that minimization measures and a habitat corridor must be used with wetlands that score 6 or higher (per the 2018 habitat score ranges). This language is more clear and changes to reflect the new moderate habitat score range.

Dust	<ul style="list-style-type: none"> • Use best management practices to control dust
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- D. Increased Buffers. If the standard buffer is not comprised of an intact native vegetation community sufficient to protect the functions and values of the wetland, the administrator shall increase the standard buffer or the applicant may choose to enhance the standard buffer to meet the above standard. Any such buffer enhancement shall be undertaken at the sole expense of the applicant and shall be based on and incorporated into a mitigation plan prepared by a qualified biologist consistent with the requirements established at Section 15.20.300(G). The administrator shall also increase the required buffer above the standard buffer width if it is determined that unique circumstances exist, either in terms of the sensitivity of the wetland or the intensity of the proposed land use, such that an increased buffer is necessary to protect the functions and values of the wetland.
- E. Buffer Reductions.
1. Buffer Reduction Based on Mitigation. Where compensatory mitigation is provided at a 1:1 ratio, standard buffers for Category II, III and IV wetlands may be reduced; provided, that the standard buffer is not reduced by more than twenty-five percent. Reduction of the standard buffer of a Category I wetland is prohibited. Buffer reductions shall only be permitted when all impacts to wetlands and their required buffers are compensated at the expense of the applicant through implementation of a mitigation plan prepared by a qualified wetland biologist consistent with Section 15.20.300(G). Except as otherwise allowed pursuant to this chapter, filling of any wetland, except a Category III or IV wetland, or reduction of a wetland buffer by more than the percentages stated above, shall require approval of a critical areas variance.
 2. Buffer Averaging. Standard buffers may be reduced through the use of buffer averaging; provided, that the total buffer area is not reduced below the area that would result from use of the standard buffer; and provided, further, that the standard buffer, at its narrowest point, is not reduced by more than twenty-five percent for Category II, III and IV wetlands, and the use of buffer averaging will improve the overall protection of the wetland, and increase the buffer adjacent to the higher functioning area of habitat or the more sensitive portion of the wetland and decrease the buffer adjacent to the lesser functioning or less sensitive portion of the wetland. Reduction of the standard buffer of a Category I wetland is prohibited. Buffer averaging may not be utilized in combination with buffer reductions based on mitigation.
- F. Limitation on Subdivision. Properties located partially or wholly within a wetland or wetland buffer shall not be subdivided in such a way that would increase the impacts to the resource that would result from development of the proposed lots or parcels.

15.20.300 Wetlands—Mitigation requirements.

- A. When a regulated activity is proposed within a wetland or wetland buffer, the applicant shall demonstrate to the satisfaction of the administrator that all reasonable efforts have been made to avoid, minimize and/or compensate for potential impacts consistent with the following mitigation sequence:

2. The characteristics of the watershed contributing to the wetland;
 3. The functions and values of the wetland to be protected by the buffer;
 4. The characteristics of the buffer;
 5. The intensity of the proposed adjacent land use;
 6. The functions that the standard buffer is intended to provide at the specific location;
 7. Proposed measures to reduce the adverse effects of adjacent land uses, such as lighting and noise restrictions, buffer fencing and signage, conservation easements, use of integrated pest management and limitations on application of pesticides, and use of low impact development techniques;
 8. Proposed mitigation measures together with an analysis of the anticipated effectiveness of the proposed mitigation measures to protect the functions and values of the affected wetland and wetland buffer. Such mitigation shall include compensation for lost time when the wetland is unavailable to perform its function;
 9. Proposed monitoring requirements to ensure the effectiveness of the proposed mitigation; and
 10. Proposed bonding to insure the completion and effectiveness of the proposed mitigation.
- H. Completion of Mitigation. Where feasible, mitigation projects shall be completed prior to activities that will disturb wetland or buffer 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 unless such timing is found to be infeasible due to factors such as the optimal time of year for planting. The administrator may require the posting of a performance bond or other form of surety to insure that all required mitigation, including required monitoring and repair, is completed in a timely fashion and consistent with the approved mitigation plan.

15.20.310 Allowed activities in wetlands, streams, and buffers.

The following activities may be permitted as specified without the issuance of a critical areas variance when all reasonable measures have been taken to avoid adverse effects on functions and values, compensatory mitigation is provided for all unavoidable adverse impacts, and the amount and degree of alteration are limited to the minimum needed to accomplish the project purpose:

- A. Surface water discharge into a wetland buffer and/or streams and their buffers when no other alternatives for discharge are feasible and the discharge is designed to minimize physical, hydrologic and ecological impacts to the wetland or stream.
- B. Utility lines in Category II, III, and IV wetlands and their buffers, Category I wetland buffers, and/or streams and their buffers when the following criteria are met:
 1. No feasible conveyance alternative is available;
 2. The project is designed and constructed to minimize physical, hydrologic and ecological impacts;
 3. The utility line is located as far from the wetland or stream edge as possible and in a manner that minimizes disturbance of soils and vegetation;

2. There will be “no net loss” of functions and values of the wetland; and
 3. The wetland does not contain a breeding population of any native amphibian species; and
 4. The hydrologic functions of the wetland can be improved as outlined in questions 3, 4, 5 of Chart 4 and questions 2, 3, 4 of Chart 5 in the “Guide for Selecting Mitigation Sites Using a Watershed Approach” (available here: <http://www.ecy.wa.gov/biblio/0906032.html>); or the wetland is part of a priority restoration plan that achieves restoration goals identified in a shoreline master program or other local or regional watershed plan; and
 5. The wetland lies in the natural routing of the runoff, and the discharge follows the natural routing; and
 6. All regulations regarding stormwater and wetland management are followed, including but not limited to local and state wetland and stormwater codes, manuals, and permits; and
 7. Proposed modifications that alter the structure of a wetland or its soils include preparation of a detailed study, and existing functions and values that are lost are compensated/replaced.
- G. Passive recreation facilities that are part of a non-motorized trail system or environmental education program including walkways, wildlife viewing structures, and trails, in wetland and stream buffers; provided, that all of the following criteria are met:
1. Trails shall not exceed ten feet in width and shall be made of pervious material where feasible;
 2. A minimum buffer of fifteen feet is maintained between the trail or facility and the wetland or stream edge; and
 3. The trail is constructed and will be maintained in a manner that minimizes disturbance of the buffer and the adjacent wetland or stream.

Commented [EA8]: In order to protect the functions and values of the wetland we recommend trails be placed as far as possible from the edge of the wetland. We would suggest the following criteria for trails from our guidance: “Walkways and trails, provided that they are limited to minor crossings having no adverse impact on water quality. They should be generally parallel to the perimeter of the wetland, located only in the outer twenty-five percent (25%) of the wetland buffer area, and located to avoid removal of significant [as defined in ordinance], old growth, or mature trees. They should be limited to pervious surfaces no more than five (5) feet in width and designed for pedestrian use only. Raised boardwalks utilizing non-treated pilings may be acceptable.”

15.20.320 Fish and wildlife habitat conservation areas—Designation.

Areas that meet any of the following criteria shall be designated as fish and wildlife habitat conservation areas (HCA) and shall be subject to the provisions of this chapter:

- A. Rivers, streams and creeks identified as waters of the state pursuant to WAC Title 222.
- B. Areas with which federally and/or state listed species have a primary association.
- C. State priority habitats and areas with which state priority species have a primary association.
- D. Naturally occurring ponds under twenty acres in size.

The foregoing notwithstanding, HCAs shall not include drainage ditches, irrigation canals and other similar artificial features that are within the boundaries of and maintained by a drainage improvement district, irrigation district or other similar agency.

15.20.330 Fish and wildlife HCA indicators.

edge of upland habitat areas; provided, that HCA buffers shall not extend into and beyond substantially improved surfaces, such as lawfully established structures and impervious surfaces.

C. Standard Buffers.

1. The following standard buffers shall be established for the following fish and wildlife HCAs based on designation and classification. Standard buffers are assumed to be comprised of a moderately intact native vegetation community that is adequate to protect the functions and values of the resource at the time of the proposed activity.
 - a. Stream Habitat—Standard Buffers. The following standard buffers shall be established for all stream habitats based on their classification:

River/Stream	Standard Buffer
Sumas River/Johnson Creek	100 feet from the OHWM
Sumas Creek	50 feet from the top of bank
Bone Creek	50 feet from the top of bank

2. Non-Stream Habitats. The administrator shall determine the 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 set forth in the following table:

Areas with federally listed species have a primary association; and state priority habitats and areas with which priority 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 recommendations of a qualified professional with appropriate expertise
Natural ponds	Buffers shall extend 50 feet landward from the Ordinary High Water Mark (OHWM) of ponds under 20 acres in size

- D. Increased Buffers. If the standard buffer is not comprised of a moderately intact native vegetation community, the administrator shall increase the standard buffer to protect the functions and values of the resource and buffer areas or the applicant may choose to enhance the standard buffer to meet the above standard. Any such buffer enhancement shall be undertaken at the sole expense of the applicant and shall be based on and incorporated into a mitigation plan prepared by a qualified biologist consistent with the requirements

- E. All mitigation areas shall be protected and managed to prevent degradation and ensure long-term protection of critical area functions and values. Permanent protection shall be achieved through deed restriction, conservation easement, protective covenant or other protective measure.
- F. Mitigation Plan. Where preparation of a mitigation plan is required, said plan shall be prepared by a qualified fisheries, wildlife or natural resource biologist and shall be approved by the administrator. The mitigation plan shall be prepared based on the best available science and shall address the following:
 - 1. The characteristics of the habitat conservation area;
 - 2. The characteristics of the watershed within which the habitat area is located;
 - 3. The functions and values of the habitat conservation area to be protected by the buffer;
 - 4. The characteristics of the buffer;
 - 5. The functions that the standard buffer is intended to provide at the specific location;
 - 6. The intensity of the proposed adjacent land use;
 - 7. Proposed measures to reduce the adverse effects of adjacent land uses, such as lighting and noise restrictions, buffer fencing and signage, conservation easements, use of integrated pest management and limitations on application of pesticides, and use of low impact development techniques;
 - 8. Proposed mitigation measures together with an analysis of the anticipated effectiveness of the proposed mitigation measures to protect the functions and values of the affected habitat conservation area and buffer;
 - 9. Proposed monitoring requirements to ensure the effectiveness of the proposed mitigation; and
 - 10. Proposed bonding to insure the completion and effectiveness of the proposed mitigation.
- G. Completion of Mitigation. Where feasible, mitigation projects shall be completed prior to activities that will disturb habitat conservation areas or buffers. 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 unless such timing is found to be infeasible due to factors such as the optimal time of year for planting. The administrator may require the posting of a performance bond or other form of surety to insure that all required mitigation, including required monitoring and repair, is completed in a timely fashion and consistent with the approved mitigation plan.

15.20.380 Geologically hazardous areas classification and designation.

Geologically hazard areas shall be classified as steep slopes, earthquake-sensitive areas and volcanic debris flow areas based on the following criteria:

- A. Steep Slopes. Steep slopes shall include all areas with a slope inclination greater than or equal to thirty-five percent with a vertical relief of ten or more feet. Steep slopes shall include, but not be limited to, areas shown as being underlain by the following soil type, as defined in the U.S.D.A. Natural Resource Conservation Service's Soil Survey of Whatcom County Area, Washington: 157 Squaticum gravelly loam.

15.20.420 Aquifer recharge area designation.

Aquifer recharge areas shall be designated based on meeting any one of the following criteria:

- A. Wellhead protection areas designated per Chapter 246-290 WAC, including, but not limited to, the Sumas wellhead protection area as established through the City of Sumas Wellhead Protection Program adopted on May 28, 1996;
- B. Sole source aquifers designated by the U.S. EPA per the Federal Safe Drinking Water Act;
- C. Areas designated for special protection as part of a groundwater management program per Chapter 90.44, 90.48 or 90.58 RCW or Chapter 173-100 or 173-200 WAC.

15.20.430 Aquifer recharge area detailed study requirements.

All proposals that require SEPA review and are located within a designated aquifer recharge area shall be reviewed by the zoning administrator to determine the potential for adverse impacts to groundwater resources. If the potential for significant adverse impacts is present, then the zoning administrator shall require preparation of an aquifer recharge area detailed study. The detailed study shall be prepared by a qualified consultant with experience in preparing hydrogeologic site assessments. Evidence of these qualifications shall be included within the study. The detailed study shall include the following, in addition to the minimum requirements established in Section 15.20.200(B):

- A. A description of the existing hydrogeologic conditions of the project site and the proposed activity's potential to result in contamination of groundwater resources.

15.20.440 Aquifer recharge area performance requirements.

Activities requiring preparation of an aquifer recharge area detailed study shall only be permitted if the detailed study indicates that the activity does not pose a significant threat to the underlying aquifer system. The zoning administrator shall establish mitigating conditions necessary to ensure protection of groundwater resources.

15.20.445 Variances.

Requests for critical areas variances shall be reviewed pursuant to the following procedures and standards:

- A. If the strict application of the dimensional standards and other provisions of this chapter would pose a hardship and severely limit reasonable economic use of the property, a landowner may seek the granting of a critical areas variance.
- B. Critical Areas Variance Procedures. An applicant may propose to develop a site in a manner other than those allowed by this chapter through application for a critical areas variance pursuant to the following:
 - 1. Procedure. The City shall process a critical areas variance application as a Class III action pursuant to the provisions of Chapter 20.08 SMC, and the application shall be

- C. In granting any exception, the city council may prescribe such conditions and safeguards as are deemed necessary to secure adequate protection of critical areas, public health, safety and welfare, and to ensure conformity with this chapter.
- D. If the city council decides to grant the exception, the city council shall make a finding that the reasons set forth by the applicant justify the granting of the exception, and that the exception granted is the minimum necessary to allow reasonable use of land, buildings or structures.
- E. In granting any exception, the city council may prescribe time limits within which the action for which the exception is requested shall commence or be completed or both. Failure to conform to any such time limits shall void the exception.

15.20.460 Enforcement.

The zoning administrator is authorized to make site inspections and take such actions as necessary to administer and enforce this chapter. City representatives shall make a reasonable effort to contact the property owner before entering onto private property. Activities found to be not in compliance with this chapter or any applicable performance requirements or any conditions established through the critical areas review and approval process, such as required mitigation, shall be subject to enforcement actions necessary to bring the activity into compliance. The city shall have the authority to require restoration, rehabilitation or replacement measures to compensate for violations of this chapter which result in destruction, degradation, or reduction in function of critical areas or required buffer areas.

15.20.470 Violations and penalty.

- A. Violation—Penalty. Each day that a violation of this chapter continues shall constitute a separate offense and be punishable as such. Any violation of this chapter shall be punished as follows:
 - 1. First Offense. The first offense shall be punished by a penalty of not more than two hundred fifty dollars, including all costs and assessments, and not less than one hundred fifty dollars, which minimum amount shall not be suspended or deferred.
 - 2. Second Offense. The second offense within a five-year period shall be punished by a penalty of not more than five hundred dollars, including all costs and assessments, and not less than two hundred dollars, which minimum amount shall not be suspended or deferred.
 - 3. Third or Subsequent Offense. A person committing a third or subsequent offense within a five-year period shall be guilty of a misdemeanor and, upon conviction, shall be punished by a fine not to exceed one thousand dollars or imprisonment in jail not to exceed ninety days or by both such fine and imprisonment. The minimum sentence shall be two hundred fifty dollars, which amount shall not be suspended or deferred.

Law enforcement officers commissioned by the city are authorized to issue a notice of infraction upon certification that the officer has probable cause to believe, and does believe, that a person

“Critical areas” means the following areas as defined and regulated in this chapter: wetlands, geologically hazardous areas, fish and wildlife habitat conservation areas, and aquifer recharge areas.

“Endangered species” means a species, native to the state of Washington, that is designated by the responsible state or federal fish or wildlife agency as endangered.

“Fish and wildlife habitat conservation areas” are areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness.

“Frequently flooded areas” means areas within the one-hundred-year floodplain as established by the Federal Emergency Management Agency (FEMA) and identified as areas of special flood hazard on FEMA flood insurance rate maps.

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

“Geologist” means a person who has received a degree in geology from an accredited college or university, or a person who has equivalent education and training and substantial demonstrated experience as a practicing geologist.

“Geotechnical engineer” means a person who is licensed as a civil engineer with the state of Washington and who has recent, related experience as a professional geotechnical engineer.

“Groundwater” means all waters that exist beneath the land surface or beneath the bed of any body of surface water, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves.

“Habitats of local importance” means a seasonal range or habitat element with which a designated species of local importance has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.

“Native vegetation” means plant species which are indigenous to the area.

“Natural watercourse” means any stream in existence prior to settlement that originated from a natural source.

“Ongoing agriculture” means the continuation of any existing agricultural activity as defined in this section, including crop rotations.

“Primary association” means habitat used by a plant or animal species that is necessary for survival, but does not include incidental use areas.