



State of Washington

Department of Fish and Wildlife, Region 4

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August 30, 2024

Chris Pasinetti, Community Development Director
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RE: Submittal ID 2024-S-7309, WDFW comments regarding Enumclaw’s draft Critical Area Ordinance

Dear Mr. Pasinetti,

On behalf of the Washington Department of Fish and Wildlife (WDFW), thank you for the opportunity to comment on Enumclaw’s draft Critical Area Ordinance (CAO) as part of the current periodic update. Within the State of Washington’s land use decision-making framework, WDFW is considered a technical advisor for the habitat needs of fish and wildlife and routinely provides input into the implications of land use decisions. We provide these comments and recommendations in keeping with our legislative mandate to preserve, protect, and perpetuate fish and wildlife and their habitats for the benefit of future generations – a mission we can only accomplish in partnership with local jurisdictions.

Table 1. Recommended changes to proposed CAO language.

Policy Number	Policy Language (with WDFW suggestions in red)	WDFW Comment
19.02.010 Policy, goals, purpose, and intent Page 2	General comment.	This section seems to repeat much of the same information in sections A-D. For reference, see Black Diamond’s Sensitive Areas code: 19.10.01 - Purpose . As shown, this section of Black Diamond’s code accurately and succinctly covers the need to utilize best available science (WAC 365-195-900), give special consideration to conservation and protection of anadromous fisheries (as required by RCW 36.70A.172),

		<p>achieve ‘no net loss’ standards (WAC 365-190-080), protect public safety, etc.</p> <p>This section should also clearly outline the five types of critical areas required to be included within this section of municipal code (wetlands, areas of critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas).</p>
19.02.010 (A) Policy, goals, purpose, and intent Page 2	1. Avoid or minimize damage to critical areas wherever possible Follow the correct mitigation sequencing when impacts to critical areas are proposed;	We suggest any section that mentions mitigation reference the required mitigation sequence as outlined in WAC 197-11-768 .
19.02.010 (A) Policy, goals, purpose, and intent Page 2	6. Achieve no net loss of wetland function and value by requiring restoration or enhancement of degraded wetlands or creation of new wetlands to offset losses that are unavoidable;	We recommend no net loss language be covered earlier, encompassing all critical areas and not just wetlands, as required by WAC 365-190-080 .
19.02.010 (B) Policy, goals, purpose, and intent Page 3	4. Allow modification and/or obliteration of low function and value wetland, stream, and wildlife habitats in conjunction with off-site mitigation and restoration in designated areas where the addition of created and/or enhanced habitats will increase fish and wildlife production, public benefits, and economic viability in the city limits and urban growth areas; and	We do not recommend allowing the removal of critical area habitat with the intent to replace the functions and values elsewhere. Streams and wildlife habitat functions are predominately place-based. Removing these critical areas from an environment will often result in a net loss of ecological values and functions.
19.02.010 (B) Policy, goals, purpose, and intent Page 3	5. Prevent cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, and habitat conservation areas Prevent a net loss of ecological values and functions for all critical areas.	In this section of Enumclaw’s municipal code, it seems there is confusion over ‘net loss.’ As described in WAC 365-190-080 , no net loss applies to overall ecological values and functions. Stated within the adjacent policy, net loss seems to refer to an amount of area lost. Specifying no net loss for ecological values and functions encompasses all losses that may impact critical areas, including but not limited to surface area loss.
19.02.010 (C)	1. Defining, designating, and classifying ecologically sensitive and hazardous	As mentioned above, we strongly recommend this section of code clearly

<p>Policy, goals, purpose, and intent Page 3</p>	<p>areas to be regulated in the city critical areas as;</p> <ul style="list-style-type: none"> • Wetlands; • Critical aquifer recharge areas; • Fish and wildlife habitat conservation areas; • Frequently flooded areas and; • Geologically hazardous areas 	<p>define what critical areas are, as stated in WAC 365-196-830.</p>
<p>19.02.010 (D) Policy, goals, purpose, and intent Page 4</p>	<p>In addition, it is the intent of the city that activities in or affecting wetlands not threaten public safety, cause nuisances, or destroy or degrade natural wetland functions and values by:</p>	<p>As outlined in our Riparian Management Zone Checklist for Critical Areas Ordinances, we suggest including within this section the intent to protect all key riparian ecosystem functions (i.e., shade, root strength, nutrient input, wood input, and pollution control).</p>
<p>19.02.020 Applicability, regulated activities, and exempt activities. Page 5</p>	<p>A. All regulated activities shall be subject to the provisions of this chapter, except those activities... In the event of any conflict between these regulations and any other regulations, the more restrictive shall apply.</p>	<p>It is crucial that there is a provision within this chapter that stipulates what will happen in the event of conflicting code provisions. It is commonplace that the more restrictive regulation shall apply.</p>
<p>19.02.020 Applicability, regulated activities, and exempt activities. Page 5</p>	<p>B. All exempted activities shall use reasonable methods to avoid potential impacts to critical areas. By finding that an activity proposed within a critical area or its associated buffer is exempt from the provisions of this chapter, the administrator is not granting permission to degrade a critical area or ignore risk from natural hazards. Any incidental damage to, or alteration of, a critical area that is not a necessary outcome of the exempted activity shall be restored, rehabilitated, or replaced at the responsible party's expense and result in no net loss to ecological values and functions.</p>	<p>It is important that no net loss language is repeated here to ensure state law is met in the outcome of these projects.</p>
<p>19.02.020 (B) Applicability, regulated activities, and exempt activities.</p>	<p>11. Public and private pedestrian trails, except in wetlands, are subject to the following:</p> <p>f. Require impacts and disturbances from recreational trails and interpretive</p>	<p>We recommend including the adjacent provision when assessing the impacts that pedestrian trails will have on critical areas. WDFW's Priority Habitats and Species program outlined the areas and management recommendations to consider</p>

Page 8	facilities are minimized to the extent practicable, informed by Priority Habitats and Species data and management recommendations	in order to accurately protect these resources.
19.02.020 (B).12.b. Applicability, regulated activities, and exempt activities. Page 9	(2) Tree cutting shall be limited to pruning and crown thinning, unless otherwise justified by a qualified professional. Where pruning or crown thinning is not sufficient to address the hazard, trees should be removed or converted to wildlife snags;	We greatly appreciate the inclusion of snag creation within this section. If needed, see the resources on our webpage (link).
19.02.030 Exceptions. Page 11	<p>A. Exception – Subdivisions with Substantial Completion of Infrastructure. A building permit application shall not be denied under this chapter if there has been substantial completion of the infrastructure of the plat within which the subject property of the permit is specifically located; however, a floodplain development permit is required, and the completed infrastructure cannot adversely impact critical area habitat or endangered species. A determination of substantial completion shall be based on the administrator’s assessment of existing constructed infrastructure such as streets, utilities, and drainage improvements.</p> <p>1. Typically “substantial completion” means the amount of construction within a particular project area has impacted critical areas to the maximum extent that would be attributable to the project actions and on-site mitigation is neither economically nor ecologically viable.</p> <p>2. The administrator will confer with the city manager, the city’s risk management specialist, and the city attorney regarding the consequences of a decision to deny a building permit for a project with a valid clearing and grading permit, approved site plans,</p>	I have not encountered a section of code like this before and am unclear on its intended application. Is this a provision that Enumclaw commonly utilizes, and could you provide some context on its practical use?

	and an authorization to proceed with construction.	
19.02.030 Exceptions. Page 11	B. Exception – Reasonable Use. “Reasonable use” exceptions do not apply within shoreline jurisdiction or within areas of special flood hazard. The intent of reasonable use is meant for the construction of single-family homes or individual projects, not commercial developments, subdivisions, or similar large-scale projects.	We encourage Enumclaw to further specify the original intent for ‘reasonable use.’
19.02.050 Finding of fact. Page 14	General comment.	We recommend this section, which defines the five types of critical areas, come earlier within this chapter.
19.02.060 Frequently flooded areas. Page 14	...The best available information for flood hazard area identification as outlined in subsection (C)(1) of this section shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under subsection (C)(1) of this section.	FEMA’s Flood Insurance Rate Map (FIRM) modeling does not take climate change projections into consideration. We suggest Enumclaw supplement FIRM maps with regulations that consider climate change projections. For example, King County regulations place ‘ Flood Protection Elevations ’ three feet above base flood elevation for development within flood-prone areas. For assessing future conditions, see Climate Mapping for a Resilient Washington , as well as FEMA’s Resilience Analysis and Planning Tool (RAPT) .
19.02.100 Fish and wildlife conservation areas – Habitat types and buffer widths. Page 26	A. Finding of Fact. There are eight types of habitat listed in WAC 365-190-080(5) WAC 365-190-130 to be considered for designation as fish and wildlife habitat conservation areas (FWHCAs). In addition, there are six considerations to be factored into the designation process. Within the urban growth boundary within the city of Enumclaw and its urban growth areas there are only encompasses two types of habitat present that will be classified or designated as fish and wildlife habitat conservation areas the following types of FWHCAs: The two	WAC 365-190-130 is the correct section of WAC referenced here. We also recommend accurately assessing the types of FWHCAs present within Enumclaw. Including WDFW’s Priority Habitats and Species (PHS) information is strongly recommended, as this is the largest database in the state for important habitats, species, and mapped location data of their occurrences. PHS information is already required in Enumclaw’s code for critical area reports. Additionally, we recommend classifying riparian management zones (RMZs) as a type of FWHCA in order to stay current with

	<p>types are stream habitat and buffers (riparian areas) adjacent to regulated streams or water bodies.</p> <p>(a) Areas where endangered, threatened, and sensitive species have a primary association;</p> <p>(b) The approximate location and extent of habitat conservation areas are shown on the following map adopted by the City, as revised: Washington Department of Fish and Wildlife Priority Habitat and Species maps;</p> <p>(c) Areas in which state-listed priority species are found, have a primary association with, or contain suitable habitat for said listed species, as listed on the Washington Department of Fish and Wildlife’s Priority Habitats and Species list;</p> <p>(d) Stream corridors and riparian management zones designated on the City critical areas map</p> <p>(e) Habitats and species of local importance, as determined locally;</p> <p>(f) Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;</p> <p>(g) Waters of the state;</p>	<p>Best Available Science (BAS) (Riparian Ecosystems, Vol. 1) as required by WAC 365-195-900. This BAS replaces stream buffer widths with RMZs measured by the Site Potential Tree Height at 200 years (SPH₂₀₀). See Riparian Ecosystems, Vol. 2 for management recommendations. Vol. 2 also provides specific resources on how to determine RMZ widths, specifying that RMZs should be at least 100 feet wide to effectively remove pollution.</p> <p>In reviewing the current scientific literature (Vol. 1), we found no evidence that full riparian ecosystem functions along non-fish-bearing streams are less important to aquatic ecosystems than full riparian ecosystem functions along fish-bearing streams. This recommendation is based on four additional considerations. Non-fish-bearing streams:</p> <ul style="list-style-type: none"> • Support a unique community of aquatic and riparian obligate wildlife; • Provide movement corridors for wildlife, particularly in the face of changing climate conditions; • Provision fish-bearing streams with matter and energy; and • Provide cool water to downstream reaches.
<p>19.02.100 (B) Fish and wildlife conservation areas – Habitat types and buffer widths. Page 27</p>	<p>6. The location of all fish-bearing streams within 200 feet of the project site, corresponding buffers, and the high water mark shall be identified on a site plan that shall be included in the critical areas report.</p>	<p>It is crucial that all streams are mapped and protected as critical areas. Identifying streams within 200 feet of the project site is also recommended, as construction and long-term outcomes of newly constructed projects may negatively impact adjacent critical areas not necessarily located on-site.</p>
<p>19.02.100 (C) Fish and wildlife conservation areas – Habitat types and buffer widths. Page 27</p>	<p>Stream Type.</p>	<p>As outlined in comments above (19.02.100 (A)), all streams should be protected without bias for fish presence. See Anacortes municipal code for reference: 19.70.330</p>

<p>19.02.100 (C) Fish and wildlife conservation areas – Habitat types and buffer widths.</p> <p>Page 28</p>	<p>5. Type O for watercourses that do not have enough flow energy to scour a stream channel to mineral soil or bedrock and that do not have fish use. This latter type is sometimes referred to as a swale or drainage swale</p>	<p>Any naturally occurring watercourse must be considered and regulated as a critical area, whether that be a stream or wetland.</p>
<p>19.02.100 (D) Fish and wildlife conservation areas – Habitat types and buffer widths.</p> <p>Page 28</p>	<p>Stream Buffer.</p>	<p>We suggest this section incorporate BAS by referencing RMZs instead of ‘stream buffers.’ Using stagnant stream buffer widths without considering site-specific characteristics results in a net loss of ecological values and functions. At a minimum, all streams should have an RMZ of 100 feet in order for pollution removal. Type Ns and Np waters within this table are listed as having buffers far below this minimum (30 feet and 60 feet, respectively). Other buffers listed in this table may result in degraded riparian areas, as all ecosystem functions and values are not being accounted for (i.e. shade, root strength, nutrient input, wood input and pollution control).</p> <p>Please see above comments, as well as RMZ mapping resources:</p> <ul style="list-style-type: none"> • RMZ web app map • RMZ downloads for jurisdiction mapping purposes <p>We also recommend using WDFW’s RMZ checklist as a tool to supplement Enumclaw’s current CAO with these suggestions. The checklist addendum provides code language used by other local jurisdictions.</p>
<p>19.02.100 (D) Fish and wildlife conservation areas – Habitat types and buffer widths.</p> <p>Page 28</p>	<p>Water Type O is not a DNR classification, but has been adopted into this chapter to provide regulatory guidance for vegetated swales. The city will not impose a buffer requirement on water Type O unless the administrator is convinced, on the basis of available field data and personal knowledge, that a buffer is needed to protect downstream critical areas from a risk of</p>	<p>As stated above, any naturally occurring watercourse must be considered and regulated as a critical area, whether that be a stream or wetland, and requires corresponding buffers to ensure no net loss of that critical area’s ecological values and functions.</p>

	significant adverse impact due to on-site water quality degradation.	
19.02.100 Fish and wildlife conservation areas – Habitat types and buffer widths. Page 28	E. Other Habitat areas. Protection standards for fish and wildlife other than streams and lakes are as follows:	WDFW’s PHS program encompasses all the RMZ recommendations given here. If needed, Enumclaw could include stream provisions within this section. The city of Burlington has adopted our science in a similar way, stating ‘refer to WDFW’s recommendations’ within their stream section of code.
19.02.120 Critical areas maps and databases. Page 29	C. The approximate location and extent of habitat conservation area-associated critical areas are shown on the following map adopted by the City, as revised: Washington Department of Fish and Wildlife Priority Habitat and Species maps	As noted above, this map encompasses the largest database in the state for important habitats, species, and mapped location data of their occurrences.
19.02.140 (D) Application.	1. The administrator, when requested by the applicant, may waive the delineation of the boundary requirement for the applicant and, in lieu of delineation by the applicant, perform the delineation. a. All wetland delineations will be completed in accordance with... b. All RMZ delineations will be completed in accordance with WDFW’s Riparian Ecosystems, Volume 2: Management Recommendations, as amended.	As stated above, BAS dictates that RMZs are measured using the SPTH ₂₀₀ methodology.
19.02.160 (A).1 Criteria for permit review, approval, denial, and issuance.	A. A permit shall only be granted if the permit, as conditioned, is consistent with the purposes and intent of this chapter. Additionally, permits shall only be granted if: 1. A proposed action follows the proper mitigation sequence outlined in 19.02.230 ÷ a. Avoids significant adverse impacts to critical areas; or	We strongly recommend using succinct, legally accurate language, such as utilizing the mitigation sequence section of code.

	<p>b. Takes affirmative and appropriate measures to minimize significant adverse impacts to critical areas; or</p> <p>c. Mitigates (compensates for) unavoidable significant adverse impacts to critical areas; and</p> <p>d. Assures no net loss of wetland function and value;</p>	
<p>19.02.190 Critical area development standards. Page 37</p>	<p>A. Area of Special Flood Hazard – Development Standards.</p>	<p>We encourage Enumclaw to consult the National Flood Insurance Program Flood Damage Prevention Ordinance, Washington Model (Revised 12/09/2019). It is advised that this section of code have its own chapter.</p> <p>As stated within this model, “This ordinance, as developed by FEMA and the Washington Department of Ecology, supersedes previous versions and includes all the minimum standards required as a condition of participation in the NFIP. It will be used by FEMA and state staff as the basis for providing technical assistance and compliance reviews during the Community Assistance Contact (CAC) and Community Assistance Visit (CAV) process to ensure federal and state law are met.”</p>
<p>19.02.190 Critical area development standards. Page 37</p>	<p>A. Area of Special Flood Hazard – Development Standards. In all areas of special flood hazard where base flood elevation data has been provided as set forth in EMC 19.02.060(B)(1)(a), Basis for Establishing the Areas of Special Flood Hazard, or EMC 19.02.060(C)(1), Uses of Other Base Flood Data, the following standards are required:</p>	<p>How is this section of code limiting development with special flood hazard areas? It is crucial that allowances for development within these areas are construed narrowly and only when all other options have been exhausted.</p> <p>Additionally, and as stated above, FEMA’s Flood Insurance Rate Map (FIRM) modeling does not take climate change projections into consideration. We suggest Enumclaw supplement FIRM maps with regulations that consider climate change projections. For example, King County regulations place ‘Flood Protection Elevations’ three feet above base flood elevation for development within flood-prone areas.</p>

<p>19.02.190 (A).6 Critical area development standards. Page 37</p>	<p>a. In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained, new construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation. Mechanical equipment and utilities shall be waterproof or elevated at least one foot above the BFE.</p>	<p>As stated above, one foot is often insufficient. Stricter regulations should apply.</p>
<p>19.02.210 Critical area tracts and easements. Page 47</p>	<p>A. Critical Area Management Tracts. As a condition of any permit, the city may shall require the permit holder to create a separate critical area management tract containing the areas determined to be critical areas. Critical area management tracts are legally created tracts containing critical areas, and compensation areas that shall remain undeveloped in perpetuity, except for allowed activities pursuant to this chapter...</p>	<p>It is crucial that the city maintains a record of all critical areas found through project applications and protects them in perpetuity. Compiling data gathered by consultants for all projects that impact critical areas can be a cost-effective way for a city to update critical area maps.</p>
<p>19.02.210 Critical area tracts and easements. Page 47</p>	<p>C. Marking During Construction. The location of the outer extent of the critical area buffer and the areas to be disturbed pursuant to an approved permit shall be marked in the field to prevent unnecessary disturbance by individuals and equipment during the development or construction of the permitted activity. Such field markings shall be approved by the city prior to the commencement of permitted activities. Such field markings shall be maintained throughout the duration of the permit.</p>	<p>The critical area <i>buffer</i> must not be disturbed, which protects and provides key ecological functions and values to the critical area.</p>
<p>19.02.230 Mitigation sequencing – Decision criteria. Page 48</p>	<p>A. Eligibility for Reasonable Use Exception Application.</p>	<p>This seems out of place, as reasonable use was discussed earlier in this chapter.</p>

<p>19.02.230 Mitigation sequencing – Decision criteria. Page 48</p>	<p>D. Mitigation of Unavoidable Critical Area Impacts as Part of a Reasonable Use Exception.</p>	<p>As noted above, reasonable use was already addressed earlier in this chapter. Additionally, no impact on critical areas can result in a net loss of ecological values and functions. If on-site mitigation is infeasible, a pathway must be given for off-site in order to achieve this requirement.</p>
<p>19.02.250 Critical area impact mitigation. Page 51</p>	<p>C. The overall goal of any critical areas mitigation project designed and implemented to compensate for wetland or fish and wildlife habitat conservation area impacts shall be no net loss of habitat (wetland, stream, riparian area, buffer, pond, etc.) functions and values and to strive for a net resource gain in habitat functions and values over present conditions. Compensation should be completed, whenever it is feasible, prior to any critical area alteration.</p>	<p>We greatly appreciate the intent for net ecological gain within this section.</p>
<p>19.02.250 Critical area impact mitigation. Page 52</p>	<p>F. Type and Location of Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternate approach, compensatory mitigation for ecological functions shall be:</p>	<p>We recommend making it clearer in this section that on-site, in-kind compensatory mitigation is preferred and shall be considered first.</p>
<p>Appendix C Mitigation plan requirements. Page 62</p>	<p>A. Baseline Information. A written assessment and accompanying maps drawn to an appropriate scale of the:</p> <ol style="list-style-type: none"> 1. Impacted wetland including, at a minimum, wetland delineation; existing wetland acreage; vegetative, faunal, and hydrologic characteristics; soil and substrate conditions; topographic elevations; 2. Impacted wetland functions and values shall be described using the system approved by the administrator; and 3. Compensation site, if different from the impacted wetland site, including at a minimum: existing acreage; vegetative, faunal and hydrologic conditions; relationship within 	<p>It seems as though wetlands are the only critical area with specific mitigation requirements within this chapter. We strongly recommend provisions for mitigation impacts to RMZs that similarly ensure no net loss of these critical area values and functions.</p>

	watershed and to existing water bodies; soil and substrate conditions; topographic elevations; existing and proposed adjacent site conditions; buffers; and ownership.	
Appendix D Definitions.	“Hazard tree” is defined as a threat to life, property, or public safety. Require that the method of hazard tree removal not adversely affect riparian ecosystem functions to the extent practicable, encourage the creation of snags (Priority Habitat features) rather than complete tree removal, involve avoidance and minimization of damage to remaining trees and vegetation within the RMZ, and require a qualified arborist to evaluate requests for hazard tree removal.	Hazard tree is mentioned in 19.02.020 Applicability, regulated activities, and exempt activities, and should be defined for clarity. This suggestion comes from section N. of WDFW’s Riparian Management Zone Checklist for Critical Areas Ordinances .
Appendix D Definitions.	“Riparian management zone” (RMZ) means an area that has the potential to provide full riparian functions. In many forested regions of the state, this area occurs within one 200-year site-potential tree height measured from the edge of the stream channel. In situations where a channel migration zone (CMZ) is present, this occurs within one site potential tree height measured from the edges of the CMZ. In non-forest zones, the RMZ is defined by the greater of the outermost point of the riparian vegetative community or the pollution removal function, at 100 feet.	As mentioned above, to implement Best Available Science, we recommend replacing stream buffer terminology with Riparian Management Zone. We appreciate Enumclaw’s inclusion of the channel migration zone already within this draft.

Thank you for taking the time to consider our recommendations to better reflect the best available science for fish and wildlife habitats and ecosystems. We value the relationship we have with your jurisdiction and the opportunity to work collaboratively with you throughout this periodic update cycle. If you have any questions or need our technical assistance or resources at any time during this process, please don’t hesitate to contact me or our Regional Land Use Lead, Morgan Krueger (morgan.krueger@dfw.wa.gov).

Sincerely,



Timothy Stapleton
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Region 4 – Habitat Program Manager

CC:

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