

Date: August 16, 2023

To: White Salmon Planning Commission

From: Alex Capron, AICP, Senior Planner

Project Name: White Salmon CAO

Project Number: 220534.2

Subject: White Salmon Critical Areas Update

White Salmon is undertaking an update of its Critical Areas Ordinance (CAO) as required by the Washington State Growth Management Act (GMA), found within White Salmon Municipal Code Title 18, Chapter 18.10 with minor associated updates to Floodplain Construction Restrictions found within Chapter 15.28. The GMA requires all local jurisdictions in Washington to adopt regulations protecting critical areas in order to preserve the natural environment, wildlife habitats, and sources of fresh drinking water. Critical areas subject to regulation under GMA include wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas (Revised Code of Washington [RCW] 36.70A.030(6)).

BergerABAM originally started this CAO update in 2018, picked up again by The Watershed Company (now DCG/Watershed) in 2022 before being placed on hold to avoid confusion associated with the Shoreline Master Program Periodic Update, completed this past July. This update ensures the CAO stays consistent with Best Available Science, as well as finding alignment with recent amendments to the SMP-specific critical areas.

Key amendments include:

1. An expanded exemptions list and establishment of regulated activities at beginning of code to bring clarity and flexibility for ongoing maintenance of existing development.
2. Establishing an allowed uses section that allows flexibility for public agency and utility projects, as well as existing single family residential remodels.
3. Removing critical area variance process, as it isn't clear when it would apply over the existing reasonable use exemption process.
4. Edits to mitigation sequencing standards to meet state guidelines.
5. Add flexibility to isolated buffers separated by a road or railway.

6. Re-locate heritage tree regulations outside critical areas ordinance, as heritage trees are not a defined Growth Management Act critical area.
7. Add exemption for single family residential construction, if only mule and black-tailed deer habitat is mapped from WDFW on-site.
8. Clarifying that erosion hazard area buffers apply when associated with landslide hazard areas.
9. Adding floodplain habitat assessment requirements consistent with federal mandate for endangered species act compliance.
10. Add wetland buffer guidance BAS language, consistent with SMP.
11. Added definitions for critical facilities, development and update Landslide Hazard Areas definition.

Schedule

The tentative adoption schedule is as follows:

2023 CAO UPDATE SCHEDULE - DRAFT	
Mid-August	<ul style="list-style-type: none"> • Email notification sent to stakeholders and interested parties
August 23	<ul style="list-style-type: none"> • Planning Commission Introduction Meeting • City CAO memo placed on City website, along with schedule
August 30th– September 29th	<ul style="list-style-type: none"> • Post CAO draft amendments on website • Planning Commission to review draft CAO Amendments • 30-day public comment period on draft revisions • Public Hearing before Planning Commission during 30-day public comment period (September 13)
October	<ul style="list-style-type: none"> • Edits and revisions suggested by Planning Commission are made to draft • Respond to public comments • Planning Commission Recommendation
November	<ul style="list-style-type: none"> • City Council CAO review and adoption

TECHNICAL MEMORANDUM



Date: September 14, 2022

To: Jan Brending, City of White Salmon

From: Clover McIngalls, Environmental Planner

Alex Capron, AICP, Planner

Dan Nickel, Environmental Engineer

Project Name: White Salmon CAO Update

Project Number: 220534.2

Subject: City of White Salmon Critical Areas Ordinance (CAO) Update-
Recommended Changes to 2019 Draft

Introduction

GMA Regulatory Update Process

The City of White Salmon is conducting a substantive review and revision of its Critical Areas Ordinance (White Salmon Municipal Code Title 18, Chapter 18.10). The Growth Management Act (GMA) requires all cities and counties in Washington to adopt regulations protecting critical areas in order to preserve the natural environment, wildlife habitats, and sources of fresh drinking water. Critical areas regulation also encourage public safety by limiting development in areas prone to natural hazards like floods and landslides. All jurisdictions are required to review, evaluate, and, if necessary, revise their critical areas ordinances according to an update schedule. Furthermore, the GMA, under RCW 36.70A.172 requires all counties and cities to “include the best available science in developing policies and development regulation to protect the functions and values of critical areas.”

A BAS report for the current update effort was prepared in 2018 by BergerABAM (Berger 2018). A draft of proposed code revisions was prepared in April of 2019, herein referred to as the “2019 draft.” It is our understanding that the 2019 draft update did not progress to Planning Commission consideration.

Purpose and Overview of this Memo

The Watershed Company has reviewed the 2019 draft to identify areas that may need to be further updated considering the lapse in time since the draft was developed, the latest BAS and changes to State critical areas guidance documents that have occurred since 2019. This memo

presents a summary of those findings and provides recommendations for revisions to the 2019 draft.

The 2019 draft revisions included the following sections of the CAO:

Section 18.10.100 - Administration

Section 18.10.200 - General Provisions

Section 18.10.300 – Fish and Wildlife Habitat Conservation Areas

Section 18.10.400 – Geologically Hazardous Areas

Section 18.10.700 – Wetland Critical Areas

Section 18.10.800 – Definitions

Section 18.10.500 – Flood Hazard Areas references the City’s adopted flood hazard ordinance. While a specific code reference is not provided, it appears this would be Title 15, Chapter 15.28 – Flood Damage Prevention was also included in the 2019 draft.

Section 18.10.600 – Critical Aquifer Recharge Areas, was not included in the 2019 draft, presumably as there are no known CARAs in the City limits. Our understanding is that this is still the case and we have therefore also excluded the CARA section from review.

Recommendations

Section 18.10.100 – Administration

Exceptions (18.10.115)

The 2019 draft makes several changes to the exceptions section including removing the public agency and utility exception and reasonable use exception. Comments in the draft seem to indicate this is because those exceptions were thought to be covered through other exception types such as a Critical Areas Variance, which was added as 18.10.115.B. We recommend revisiting this to ensure both of these exceptions are specifically and clearly addressed, preferably as their own sections. The criteria for the Critical Areas Variance indicates it is really just intended for reasonable use. If so, it should be renamed accordingly. If the City desires to have a separate Critical Areas Variance it should be clarified when this would apply.

Critical Areas Permit (18.10.114)

The 2019 draft added a new Regulated Activities section, 18.10.114, which appears to create a new critical areas permit process. This could be a significant change in the way the City

processes critical areas review. Before moving forward with this change the City should confirm this is still the desired approach and should consider if there are other processes or procedures in place in other parts of the code (Title 19 for example) that would be needed to support this new permit, or if further revisions would be needed outside of the CAO.

Section 18.10.200 - General Provisions

Buffers (18.10.211)

Some modifications to the general buffers section, 18.10.211, will likely be needed in coordination with the revisions to the wetland buffers section, 18.10.713, discussed below. The wetland buffers section cross references to the general buffers section but not all of the general buffer modifications are applicable to wetland buffers. See the wetlands section of this memo for further discussion of wetland buffer recommendations.

Setbacks (18.10.212)

The 2019 draft removes the requirement for a 15-foot building setback from the edge of a buffer, NGPE, or critical area tract. The purpose of a setback is to protect the buffer from encroachment for things like access and maintenance, so that the full buffer area remains intact and functional as is necessary to adequately protect the critical area. We recommend leaving the setback requirements that are in the current code. If desired, allowance for setback reductions may be considered.

Section 18.10.300 – Fish and Wildlife Habitat Conservation Areas

Heritage Trees (18.10.318)

WSMC 18.10.317 discusses heritage trees. A definition for heritage trees is provided along with a nomination and designation process, and maintenance and preservation requirements. 18.10.317.A states that, “all heritage trees qualifying for protection provide valuable local habitat and shall be protected as critical areas.” However, heritage trees are not a critical area as defined by the State, and are not typically included in critical areas regulations. Trees do provide valuable habitat but generally the protection of this habitat, from a critical areas perspective, would be covered through the protection of specific, State-defined critical areas and buffers, rather than the individual trees themselves. Additionally, many jurisdictions choose to have a tree ordinance to regulate all qualifying trees in the jurisdiction, not just those limited to critical areas or buffers. It appears the City has such an ordinance in WSMC Chapter

18.35. We recommend the City consider removing the heritage tree section from within the CAO and incorporating it into Chapter 18.35 instead.

Riparian Habitat Buffers (18.10.313)

The 2019 draft maintains the City’s current buffer widths for Type F, Np and Ns waters. In 2020, the Washington Department of Fish and Wildlife (WDFW) came out with new guidance (Quinn et al. 2020) for protection of riparian areas that heavily emphasizes a shift in terminology from the concept of “stream buffers” to “riparian management zones” (RMZs). An RMZ is defined as “...a scientifically based description of the area adjacent to rivers and streams that has the potential to provide full function based on the SPTH [site potential tree height] conceptual framework.” This differs from the use of “buffer(s),” as an RMZ is by definition wide enough to potentially provide full riparian function. Stream buffers are established through policy decisions and are clearly intended to protect streams, but may or may not be intended to provide full riparian function or a close approximation of it. The guidance recommends that a RMZ be delineated on a site specific basis and be measured from the outer channel migration zone.

The City could consider requiring site specific RMZs, rather than set buffer widths. However, this approach is difficult to implement and many jurisdictions are choosing to continue with set buffer widths, while taking into consideration the range of widths that the custom RMZ mapping would produce. The 200-foot set buffer width currently in the code for Type F streams is on the larger end of what is seen in many jurisdictions and should be adequate to protect most stream and stream buffer function. Therefore, no changes are recommended at this time.

Section 18.10.400 – Geologically Hazardous Areas

No additional recommendations have been identified at this time.

Section 18.10.700 – Wetland Critical Areas

Wetland Buffers (18.10.713)

The 2019 draft retains the current CAO’s approach of having multiple wetland buffer tables. Table 18.10.700(1) provides standard wetland buffer widths, based on wetland category and adjacent land use, for protecting water quality function. Tables 18.10.700(2) and (3) go on to specify different buffer widths, based on wetland category, habitat score, and adjacent land use, for protection of habitat function. It is unclear when each table is intended to apply.

Water quality and habitat are two different functions provided by wetlands which buffers are used to protect. Protecting wildlife habitat functions of wetlands generally requires larger buffers than protecting water quality functions of wetlands, thus BAS recommended buffer widths are based on those required to protect habitat function as those widths are expected to also protect water quality function, and most other wetland functions. The 2019 draft makes updates to the current code’s habitat buffer tables to modify the score ranges and buffer widths for use with the latest (2014) wetland rating system and presumably the BAS at the time, however the tables still use a graduated scale to increase the buffer width required for every one point increase in habitat score. This is a method offered in Ecology’s older guidance (Alternative 3A in Appendix 8-D, Ecology 2014) but it is inherently more complicated than buffer tables using fewer score groupings and is thus less commonly used by jurisdictions.

We recommend replacing the buffer tables in the 2019 draft with one of the single, BAS based, buffer tables currently recommended by Ecology for use in CAO updates. Ecology’s latest wetland guidance for CAO updates, currently still in draft form, provides three BAS based options for wetland buffer tables. One option is based on wetland category and land use, similar to Table 18.10.700(1) in the 2019 draft, and is shown in Table 1 below (Ecology 2022). This option necessitates inclusion of a table with levels of impacts from proposed land use types, similar to what the 2019 draft has as Table 18.10.700(2).

Table 1. Ecology Buffer Option 2, based on wetland category and adjacent land use (similar to 2019 draft table 18.10.700(1))

Wetland Category	Land Use Impact		
	Low	Moderate	High
I	125 ft	190 ft	250 ft
II	100 ft	150 ft	200 ft
III	75 ft	110 ft	150 ft
IV	25 ft	40 ft	50 ft

Another option from Ecology’s draft guidance (Option 3) relies solely on wetland category, thus resulting in larger widths. It is the simplest to administer, but the least flexible (Table 2 below).

Table 2. Ecology Buffer Option 3, based only on wetland category

Wetland Category	Buffer
I	300
II	300
III	150
IV	50

The final option in Ecology’s draft guidance provides the most flexibility and site-specific buffers. It takes into consideration habitat score, but not adjacent land use as it is presumed that most urban land uses will be high or moderate intensity. The standard buffers in this option require the implementation of minimization measures, to reduce from a high to moderate intensity buffer. These measures are similar to those in Table 18.10.211 in the general provisions chapter of the 2019 draft. If an applicant chooses not to apply the applicable minimization measures, then an approximately 33% increase in the width of all buffers is required. The standard buffer widths and typical minimization measure under this option are provided below. Not every example minimization measure is required. The City would determine with the applicant which measures are applicable and predictable. Note that to use the reduced widths in Table 3, the protection of a wildlife corridor is also required between higher functioning wetlands that score 6 or more habitat points and certain other protected areas. If this can not be provided than the non-reduced (33% increase) buffer would be required for those higher functioning wetlands.

Table 3. Ecology Buffer Option 1

Wetland Category	Habitat Score 3-5 points	Habitat Score 6-7 points	Habitat Score 8-9 points	Buffer width based on special characteristics
Category I & II: Based on rating of functions (and not listed below)	75	110	225	NA
Category I & II: Forested	75	110	150	NA

Wetland Category	Habitat Score 3-5 points	Habitat Score 6-7 points	Habitat Score 8-9 points	Buffer width based on special characteristics
Category I: Bogs, calcareous fens, and Wetlands of High Conservation Value	NA	NA	NA	190
Category I: Alkali	NA	NA	NA	150
Category II: Vernal pool	NA	NA	NA	150
Category III	60	110	150	NA
Category IV	40	40	40	NA

Table 4. Impact Minimization Measures (required for use with Buffer Option 1 [Table 3])

Example of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Lights	<ul style="list-style-type: none"> • Parking lots • Commercial/industrial • Residential • Recreation (e.g. athletic fields) • Agricultural buildings 	<ul style="list-style-type: none"> • Direct lights away from wetland • Only use lighting where necessary for public safety and keep lights off when not needed • Use motion-activated lights • Use full cut-off filters to cover light bulbs and direct light only where needed • Limit use of blue-white colored lights in favor of red-amber hues • Use lower-intensity LED lighting • Dim light to the lowest acceptable intensity
Noise	<ul style="list-style-type: none"> • Commercial • Industrial • Recreation (e.g. athletic fields, bleachers, etc.) • Residential • Agriculture 	<ul style="list-style-type: none"> • Locate activity that generates noise away from wetland • Construct a fence to reduce noise impacts on adjacent wetland and buffer • Plant a strip of dense shrub vegetation adjacent to wetland buffer
Toxic runoff	<ul style="list-style-type: none"> • Parking lots • Roads • Commercial/industrial • Residential areas • Application of agricultural pesticides • Landscaping • Agriculture 	<ul style="list-style-type: none"> • Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 feet of wetland • Apply integrated pest management

Example of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
		(Note: these examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site)
Stormwater runoff	<ul style="list-style-type: none"> • Parking lots • Roads • Residential areas • Commercial/industrial • Recreation • Landscaping/lawns • Other impermeable surfaces, compacted soil, etc. 	<ul style="list-style-type: none"> • Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer • Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns
Pets and human disturbance	<ul style="list-style-type: none"> • Residential areas • Recreation 	<ul style="list-style-type: none"> • Use privacy fencing • Plant dense vegetation to delineate buffer edge and to discourage disturbance • Place wetland and its buffer in a separate tract • Place signs around the wetland buffer every 50-200 ft., and for subdivisions place signs at the back of each residential lot • When platting new subdivisions, locate greenbelts, stormwater facilities, or other lower-intensity land uses adjacent to wetland buffers
Dust	<ul style="list-style-type: none"> • Tilled fields • Roads 	<ul style="list-style-type: none"> • Use best management practices to control dust

Ecology Buffer Option 1 (Table 3 above) provides the most flexibility and the option for the lowest buffers for lower functioning wetlands, however it is more complex to administer given the conditions for implementation (minimization measures and habitat corridor for some wetlands). Alternately, Ecology Option 2 (Table 1) is a simpler option, with a similar structure (through larger buffers) compared to the current code. We recommend one of these options be implemented.

Additional details and examples can be found in the following guidance documents:

- *Wetland Guidance for CAO Updates, Eastern WA Version* (Bunten et al. 2016, Revised July 2018) and the 2022 Ecology document *DRAFT Wetland Guidance for Critical Areas Ordinance (CAO) Updates, Western and Eastern Washington* (WDOE 2022), which is intended as an update to the 2016/18 document.

- Wetlands in Washington State – Volume 2, Appendix 8D (Granger et al. 2005, Revised July 2018)

Wetland Buffer Reductions

Section 18.10.713.D in the 2019 draft references to the general provision section on buffer width modifications which appears to allow wetland buffers to be reduced in certain circumstances. Ecology guidance has moved away from allowing buffer reductions in most circumstances. If Buffer Option 1 is selected, Table 3 represents the lowest buffer widths supported by BAS and no further reduction should be allowed. Ecology recommends that buffer reductions should be tied to reducing the impacts from the adjacent land use as is provided for through use of the minimization measures in Table 4. Thus, essentially a reduction is already built in through use of the minimization measures and habitat corridor and further reductions would not generally be supported. Rather if those minimization measures are not provided an increased buffer must be used.

Depending on which wetland buffer approach is selected, modifications to 18.10.713.D and 18.10.211 will likely be needed to ensure that the buffer reductions language in the general provisions section does not allow for reductions of wetland buffers beyond the minimum supported by BAS. Similarly, Table 18.10.211-1 may need to be moved to section 18.10.713 to be used in conjunction with the wetland buffer table if Ecology Option 1 is used.

Section 18.10.800 – Definitions

No specific changes are recommended at this time. However, we recommend the CAO definitions be cross-referenced with the SMP definitions in conjunction with the SMP periodic update which is occurring concurrently.

Chapter 15.28 – Flood Damage Prevention

No additional recommendations have been identified at this time.

References

Bunten, D., Mraz, R., Driscoll, L., & Yahnke, A. (2016). Wetland Guidance for CAO Updates: Eastern Washington Version (Ecology Publication #16-06-001). Washington State Department of Ecology. <https://apps.ecology.wa.gov/publications/summarypages/1606001.html>

Granger, T., Hruby, T., McMillan, A., Peters, D., Rubey J., Sheldon, D., Stanley, S., Stockdale, E. 2005. Wetlands in Washington State, Volume 2 – Guidance for Protecting and Managing

Wetlands (used with modified Appendix-C, 2018). Washington State Department of Ecology Publication No. 05-06-008.

Knutson, K. L., & Naef, V. (1997). Management recommendations for Washington's priority habitats: riparian. Washington Department of Fish and Wildlife.

Quinn, T., G.F. Wilhere, and K.L. Krueger, technical editors. 2020. Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications. Habitat Program, Washington Department of Fish and Wildlife, Olympia, Washington. Windrope, A., T. Rentz, K. Folkerts, and J. Azerrad. 2020. Riparian Ecosystems, Volume 2: Management Recommendations: A Priority Habitats and Species Document of the Washington. Department of Fish and Wildlife, Olympia, Washington.

WDOE (Washington State Department of Ecology). 2022. DRAFT Wetland Guidance for Critical Areas Ordinance (CAO) Updates, Western and Eastern Washington. Ecology Publication No. 22-06-005.