



MEMORANDUM

DATE: June 14, 2024

TO: Kitsap County Commissioners

CC: Scott Diener, Planning and Environmental Programs Manager
Colin Poff, Planning Supervisor

FROM: Kathlene Barnhart, Senior Planner

RE: Proposed Stream Buffer Increases and Alternative UGA Buffers in Draft CAO

The intent of this memorandum is to provide an overview of the draft regulations related to proposed increases to stream buffer widths and documentation of the reasoned analysis for departing from Best Available Science (BAS) with regard the proposed Alternative Urban Growth Area stream buffers for Type Ns/Np and O streams. This document is supplemental to the *Best Available Science Summary Report* (DCG Watershed, 5/31/23) and *Consistency and Gap Analysis Report* (DCG Watershed, 6/21/23), and the WDFW Riparian Management Guidance Technical Memorandum (DCG Watershed, 12/8/23).

Requirements

Critical areas subject to regulation under the Growth Management Act (GMA) are 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)). GMA requires that all critical areas be designated and that all functions and values of critical areas be protected (RCW 36.70A.172).

In developing regulations to designate critical areas and protect their functions and values, GMA requires that best available science (BAS) be included, and that "special consideration" be given to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

Chapter 365-195 of the Washington Administrative Code (WAC) addresses the subject of BAS. BAS documents are those prepared by qualified scientific experts and follow a valid scientific process. The scientific process, which produces reliable information, is generally characterized by peer review, standardized methods, logical conclusions and reasonable inferences, quantitative analysis, proper context, and references. Common sources of

scientific information include research, monitoring, inventory, modeling, assessment, and synthesis (WAC 365-195-905). A county may compile scientific information through its own means and/or it can rely on state agencies who have already compiled the information (WAC 365-195-910).

While the body of scientific knowledge pertaining to critical areas continues to evolve as new studies are conducted and new technologies are employed, BAS may not always provide decisive information for developing policies and development regulations to protect the functions and values of critical areas. Where the scientific literature shows variable methods or results, a range of values may be provided.

Criteria for how to include BAS in the development of policies and regulations is provided in WAC 365-195-915, which states in part:

- 1) *To demonstrate that the best available science has been included in the development of critical areas policies and regulations, counties and cities should address each of the following on the record:*
 - (a) *The specific policies and development regulations adopted to protect the functions and values of the critical areas at issue.*
 - (b) *The relevant sources of best available scientific information included in the decision-making.*
 - (c) *Any nonscientific information—including legal, social, cultural, economic, and political information—used as a basis for critical area policies and regulations that depart from recommendations derived from the best available science. A county or city departing from science-based recommendations should:*
 - (i) *Identify the information in the record that supports its decision to depart from science-based recommendations;*
 - (ii) *Explain its rationale for departing from science-based recommendations; and*
 - (iii) *Identify potential risks to the functions and values of the critical area or areas at issue and any additional measures chosen to limit such risks. State Environmental Policy Act (SEPA) review often provides an opportunity to establish and publish the record of this assessment....*

This Memo will serve to meet these requirements.

Best Available Science for Fish and Wildlife Habitat Conservation Areas

The *Best Available Science Summary Report* (DCG Watershed, 5/31/23) and *Consistency and Gap Analysis Report* (DCG Watershed, 6/21/23) serve to provide an analysis of any new BAS available since the last update adopted in 2017, as well any differences between that science and existing code.

As stated in these Reports, in 2020, the Department of Fish and Wildlife (WDFW) published a new BAS document (*Riparian Ecosystems, Volume 1: Science synthesis and management implications*) and updated management recommendations (*Riparian Ecosystems, Volume 2: Riparian Management Guidelines*). The Management Recommendations suggested establishing Riparian Management Zone (RMZs) around streams by measuring **Site Potential Tree Height** (SPTH) near that stream. SPTH is the average 200-year maximum height of the tallest dominant tree species in that riparian area, generally approximating old-growth forest conditions which is assumed to be necessary for full riparian ecosystem functions. Since these values are based on soil types, they can vary widely within a stream reach and are not based on stream “type” as with the current buffer system. Accordingly, the use of the SPTH method would also require a site-specific analysis by a biologist and soil scientist for each proposal within the largest potential buffer to determine the appropriate buffer width. While WDFW has developed a mapping tool to assist with identifying SPTH, it still incomplete for areas within Kitsap County and currently does not include guidance to support parcel specific applications. Further, it is important to note that while the use of SPTH is based on BAS from *Volume 1*, the SPTH management recommendations of *Volume 2* are not in and of themselves considered BAS.

In December of 2023, after reviewing new BAS and WDFW recommendations as well as following consultation with WDFW, a technical memorandum was prepared by DCG/Watershed further analyzing WDFW Riparian Management Guidance (see attached). The memo identifies three possible buffer options for FWHCAs within the County:

1. **Retain Existing Values.** Kitsap County’s regulations currently protect FWHCA’s primarily through the use of predictable stream buffers, with 150 feet for Type F (fish bearing) streams and 50 feet for Type Np (perennial, non-fish bearing) and Type Ns (season, non-fish bearing) streams. In Kitsap County, the SPTH ranges from 102-feet to 235-feet. Given the small buffers for Type Np and Ns streams, this approach may be considered a departure from Best Available Science.
2. **Use Site Potential Tree Height.** This approach would result in the largest overall increase in buffers around streams. It would also require site specific analysis and therefore less predictability of application and less clarity in implementing regulations.
3. **Predictive Model:** This approach would increase buffer widths to better align with Best Available Science and increase riparian protections but would keep the County’s stream typing system and predictive buffers for consistent application by reviewers and applicants.

The predictive model (option #3) was recommended and included in the March 8, 2024 CAO draft.

Type Ns/Np Buffers

The predictive model recommends increasing Type 'N' buffers from 50' to 100'. While this is often less than full SPTH values, it will achieve the full recommended pollutant removal function as well as greatly increase riparian functions by providing 85% of in-stream wood recruitment and erosion control. This increase will provide greater riparian function than current buffers, while still meeting WDFW's minimum recommended riparian management zone widths from their *Volume 1: Science Synthesis* document.

Type F Buffers

The technical memorandum also recommended increasing buffer widths on Type 'F' streams from 150' to 200' to better align with Site Potential Tree Height Widths. The 200' width is an approximation Site Potential Tree Height Value, which in the County can range from 102-feet to 235-feet. In some cases, the existing 150-foot buffer width on Type 'F' streams is greater than Site Potential Tree Height values, but more frequently it is less. Increasing the Type 'F' buffer from 150' to 200' would meet or exceed SPTH values 72% of the time. Further, the BAS provides that the majority of the buffer function is provided at 70-80% of SPTH with only slight cumulative improvements beyond that. Thus, at 200' feet the buffer is providing 85% of SPTH almost all of the function and value protections, much greater than current buffers.

Impact of Buffer Increases

Overall, the stream buffer changes in the predictive model will increase the acres impacted by approximately 41-43%. If using the SPTH model, this would be upwards of a 74% increase. See table below. This does not include cities, military properties, tribal lands, or buffers extending outside County jurisdictional boundaries. Further breakdown by stream type in UGA can be found in further discussion below.

	Current Buffer acres	Proposed Buffer acres	Difference
UGA	1,701	2,404	+703 (41%)
Rural	20,317	29,014	+8,688 (43%)
Total	22,018	31,418	+9,400 (42.6%)

Proposed Changes

The draft proposed standard stream buffer widths are summarized below:

Water Type	Existing Buffer Width*	Proposed Buffer Width*
F	150 feet	200 feet
Np	50 feet	100 feet
Ns	50 feet	100 feet
O**	N/A	100 feet

* a 15-foot building setback is in addition to the stated buffer

**Newly added stream type “other”

Departing from BAS for Alternative Urban Growth Area (UGA) Buffers

Given the increased acres in the urban area affected by the proposed changes to the standard buffer, options were explored for buffer strategies that would be protective of critical areas while at the same time allow the kinds of infill and increased density that is also required in the urban areas. The proposed Alternative UGA Buffers option was then developed based on the recognition that some buffers in the UGAs have already been compromised, that the GMA mandate is to protect the existing functions and values, and that stormwater regulations already provide water quality treatment in UGAs. The alternative UGA buffers option also allow the furthering of GMA goals in the urban areas.

Proposed changes

The draft proposed Alternative UGA Buffer widths are summarized below and will be allowed only for specific types of development that meet established code criteria as described below:

Water Type	Existing Buffer Width*	Proposed Buffer Width*	Proposed Alternative UGA Buffer Width*
F	150 feet	200 feet	150 feet
Np	50 feet	100 feet	75 feet
Ns	50 feet	100 feet	75 feet
O**	N/A	100 feet	75 feet

* a 15-foot building setback is in addition to the stated buffer

**Newly added stream type “other”

Analysis

As discussed above, WDFW Riparian Management Guidance recommends using Site Potential Tree Height as a scientifically supported approach when the goal is to achieve *full* riparian function. This works best in an old-growth forested environment, where the additional riparian functions at the outer edges of the buffer can be achieved, such as shade, woody debris, and habitat connectivity. GMA recognizes, however, that not all critical areas possess the full suite of functions and values and that only what currently exist are required to be protected. For example, WAC 365-196-830(4) requires that “development regulations must preserve the existing functions and values of critical areas” [emphasis added] to ensure no net loss of ecological functions and values. Frequently, urban areas are already heavily altered and cannot achieve full riparian function. Only 6% of mature vegetation within unincorporated Kitsap County is located within UGAs. The UGA Alternative buffer focuses on those areas where full riparian functions do not exist, due to proximity of existing development, while protecting the riparian areas that remain. Existing functions and values would be preserved and enhanced. Further, Kitsap County is developing tree retention standards as part of the Comprehensive Plan update process. These draft standards would require a certain number of ‘tree credits’ for a development and promote the retention of mature trees by making the ‘credits’ for such trees greater.

Additionally, Kitsap County already has regulations in place within urban areas that address the functions protected by the larger buffers in BAS. WDFW recommended no less than 100-foot buffers as this provides the width necessary to remove 95% of most pollutants and 80% of surface nitrogen. Kitsap County’s stormwater code (Title 12) requires stormwater treatment for pollutant removal when new or redevelopment results in a certain square footage of hard surface area. The trigger is 5,000 square feet in the urban areas and 10,000 square feet in the rural areas (KCC 12.20.010(1)(B)). In addition, due to generally smaller lot sizes and lack of natural vegetation, full dispersion flow-paths for stormwater are not often feasible in urban areas, therefore requiring engineered drainage, including water quality and quantity treatment. Stormwater in urban zones thus is more frequently going to require design to mitigate functions that would naturally be provided by larger, vegetated riparian zones. Title 12 also allows increased measures to mitigate or eliminate drainage-related impacts on critical drainage areas, which, essentially, are areas within or near a critical area.

Finally, the proposed Alternative UGA Buffers option would foster other goals of the Growth Management Act that are frequently in conflict with the goals of environmental protection. As shown in the buffer impact table below, using SPTH within the UGA significantly reduces the availability of land available for development (1,268 acres or almost a 75% increase). Even using the predictive buffer model in UGAs would prohibit or

severely limit development in over 40% more land (703 acres). Less developable land within areas targeted for increased growth would impact:

- GMA Goal 2 by reducing opportunities for redevelopment and multifamily development in urban areas and putting further pressure on rural areas to accommodate development.
- GMA Goal 4 by reducing availability of urban land, thereby increasing development costs, and leading to fewer opportunities for affordable housing development.
- GMA Goal 6 by impacting property rights and increasing the requests for variances and reasonable use.
- GMA Goal 7 by increasing the complexity and cost of permitting, increasing the time for the County to process permits, and decreasing predictability for applicants.

Acres of buffer areas	Current Buffer (150 ft and 50 ft)	Proposed Predictive Buffers (200 ft and 100 ft)	% Increase	Using SPTH	% Increase
Type F Streams	1,404 acres	1,877 acres	473 acres or <u>33.7%</u>	-	
Type Np and Ns Streams	245 acres	514 acres	269 acres or <u>109%</u>	-	
All Streams Combined	1,701 acres	2,404 acres	703 acres or <u>41%</u>	2,969 acres	1,268 acres or <u>74%</u>

Limitations for using the Alternative UGA Buffer

The proposed Alternative UGA Buffer Widths are based on a 25% reduction from the new proposed standard buffer widths but still are as protective or more protective than existing buffers. Nevertheless, to minimize the scope of departure from BAS, the use of the Alternative UGA Buffers is limited to certain types of projects that promote infill, promote increased density, and promote restoration. Namely, these are redevelopment projects, multi-family projects, and projects with the primary purpose of ecosystem restoration.

Criteria for new multi-family and redevelopment are:

- The proposal provides a HMP which demonstrates greater riparian function will be provided than currently exists;
- The proposal will not significantly increase the threat of erosion, flooding, slope stability or other hazards on the site or on adjacent properties;
- Existing development within the UGA Alternative Buffer is legally established; and
- The proposal complies with all other local and state regulations.

Ecosystem restoration, as defined in the draft, may apply the Alternative UGA Buffers in conjunction with any use allowed in the zone.

In summary, if a property were able to use the alternative buffer width, that project would have to demonstrate that riparian functions will be greater than existing conditions, thereby exceeding the 'no net loss' requirement. Further, it is only allowed in urban areas and the County would aim to protect what riparian functions remain and restore where possible while also encouraging redevelopment and increased density to occur.

Next Steps

A public comment period on the County's draft amendments ran from March 8, 2024-April 26, 2024. A copy of all of comments, as well as staff responses has been provided to Planning Commission along with this memo. Recommendations from Planning Commission will be summarized along with staff recommendations and presented to the Board of Commissioners in summer of 2024. Adoption of the CAO is currently targeted for September 2024.