Committee of the Whole

Ryan Countryman

Council Initiated:
☐Yes
☒**No**

ECAF: 2024-2646
Ordinance: 24-097

Type:
☐Contract
☐Board Appt.
☒**Code Amendment**
☐Budget Action
☐Other

Requested Handling:
☒**Normal**
☐Expedite
☐Urgent

Fund Source:
☐General Fund
☐Other
☒**N/A**

Executive Rec:
☐Approve
☐Do Not Approve
☒**TBD**

Approved as to Form:
☒**Yes**
☐No
☐N/A

Subject: Code amendment – Critical Area Regulations.

Scope: **Staff Report #2.** Ordinance 24-097 (Ordinance 24-097) would revise several chapters in Title 30 SCC regarding Critical Area Regulations (CAR).

Amendment Sheet 1 has been withdrawn by its sponsors.

Amendment Sheet 2 was provided by PDS to include several non-substantive technical changes and corrections.

Amendment Sheet 2a has been provided by PDS to replace Amendment 2 and to include additional non-substantive technical changes and corrections.

Amendment Sheet 3 proposes several substantive amendments sponsored by Councilmember Mead.

Duration: N/A

Fiscal Impact: ☐Current Year ☐Multi-Year ☒**N/A**

Authority Granted: None

Background: On January 15, 2025, the County Council began its hearing on Ordinance 24-097 which was a proposal by the County Executive. Following lengthy testimony and discussion of possible amendments, the County Council moved Ordinance 24-097 to Committee of the Whole to allow for refinement of potential amendments.

Amendment 3 is the subject of this staff report. Councilmember Mead is sponsoring Amendment 3 to make several substantive changes related to use of separate tracts, permanent protective fencing, combining tracts and fences, buffer averaging, buffer enhancement, and exemption thresholds for small wetlands.

Appendix A summarizes the key changes in Amendment 3. All changes would result in greater protections for critical areas and buffers than current codes. Some changes would provide more protections than proposed in Ordinance 24-097. Other changes would result in more protection than current code, but less than proposed in Ordinance 24-097.

Appendix B provides a comparative analysis of current code requirements, Ordinance 24-097, and Amendment 3. This analysis only includes code sections where Amendment 3 would make changes.

Appendix C provides a chronology of critical area regulations, requirements, and key technical documents. These are the basis of current codes, proposed changes in Ordinance 24-097, and amendments proposed in Amendment Sheet 3.

Appendix D analyzes recent comments from the Washington Department of Fish and Wildlife on current provisions, Ordinance 24-097, and Amendment 1. This appendix considers WDFW's earlier comments in the context of changes proposed through Amendment 3.

Appendix A: Summary and Comparison

Issue	Current Code	Ordinance 24-097	Amendment 3
Separate Tracts	Allows a 15% buffer width reduction when using separate tracts	Removes incentive to place critical areas and buffers in separate tracts	Reduces separate tract incentive to a 10% buffer width reduction
Protective Fencing	Allows a 15% buffer width reduction when installing fencing	Removes incentive to provide protective fencing	Reduces fencing incentive to a 10% buffer width reduction
Combining Tracts and Fences	Allows a 25% buffer width reduction when combining fences and tracts	Removes incentive to use fences and tracts	Reduces incentive to combine fences and tracts to a 20% buffer width reduction
Buffer Averaging	Allows reduction of buffer width to 50% of the standard buffer or 25 feet, whichever is greater, in some areas with corresponding increases elsewhere	Reduces flexibility for wetlands to 75% of the standard buffer or 25 feet, whichever is greater; retains 50% allowance for streams, lakes, and marine waters, with corresponding increases elsewhere	Reduces flexibility for averaging to 75% establishing a new minimum of 30 feet, AND does the same for streams, lakes, and marine waters, with corresponding increases elsewhere
Enhancement	**Enhancement Only:** 25% reduction in both width and area	**Enhancement Only:** 25% reduction in both width and area	**Enhancement Only:** 20% reduction in width and 25% reduction in area
	Enhancement Plus Fencing: 30% reduction in both width and area	**No incentive for enhancement with protective fences**	**Enhancement Plus Fencing:** 25% reduction width and 30% reduction in area
	Enhancement Plus Tracts: 30% reduction in both width and area	**No incentive for enhancement with tracts**	**Enhancement Plus Tracts:** 25% reduction width and 30% reduction in area
	Enhancement Plus Buffer Averaging: 50% reduction in width and 30% reduction in area	**No incentive for enhancement with buffer averaging**	**Enhancement Plus Buffer Averaging:** 25% reduction in width and 30% reduction in area
Exemptions for small wetlands	**Category I**: Cannot be filled	**Category I**: Cannot be filled	**Category I**: Cannot be filled
	Category II: Can be filled if under 5,000 square feet and mitigation provided	**Category II**: Cannot be filled	**Category II**: Cannot be filled
	Category III: Can be filled if under 5,000 square feet and mitigation provided	**Category III**: Cannot be filled	**Category III**: If under 5,000 square feet and the habitat function score is 5 or less can be filled if mitigation provided
	Category IV: Can be filled if under 10,000 square feet and mitigation provided	**Category IV**: Can be filled if under 4,000 square feet and mitigation provided	**Category IV**: Can be filled if under 10,000 square feet and mitigation provided

Appendix B: Comparison of Ordinance 24-097 and Amendment 3 by Code Section

SCC 30.62A.320(1)(f) Issue: Tracts and Fences

Current Code. Subsection (1)(f) provides measures for reducing buffer width and area without use of a critical aera study or mitigation plan. Subsection (1)(f)(i) provides for a 15% reduction in buffer width when the buffer and critical area are in a separate tract. Subsection (1)(f)(ii) provides a 15% reduction in buffer width in exchange for installation of protective fencing. Subsection (1)(f)(iii) provides for a 25% buffer width reduction for combining separate tracts and protective fencing.

Ordinance 24-097 proposes to repeal Subsection (1)(f).

- Language regarding standards for protective fences currently in Subsection (1)(f)(ii) would move to SCC 30.62A.160(5) and combine with other provisions related to protective fencing.
- Addition of a new Subsection (1)(c) may affect numbering of subsequent subsections.

Amendment 3 proposes to retain but modify incentives in Subsection (1)(f) related to tracts, protective fencing, and their combination.

- The incentive for using separate tracts would decrease to 10% from 15%.
- The incentive for proving permanent protective fences would decrease 10% from 15%.
- The combined incentive would decrease to 20% from 25%.
- Amendment phrasing includes a reference to the newly combined fence standards in SCC 30.62A.160(5) rather than keeping them in the current location.
- Addition of a new Subsection (1)(c) in Ordinance 24-097 is unaffected by Amendment 3; renumbering to account for this addition means that Subsection (1)(f) would become Subsection (1)(g) if Amendment 3 is adopted.

Issue	Current Code	Ordinance 24-097	Amendment 3
Separate Tracts	Allows a 15% buffer width reduction when using separate tracts	Removes incentive to place critical areas and buffers in separate tracts	Reduces separate tract incentive to a 10% buffer width reduction
Protective Fencing	Allows a 15% buffer width reduction when installing fencing	Removes incentive to provide protective fencing	Reduces fencing incentive to a 10% buffer width reduction
Combining Fences and Tracts	Allows a 25% buffer width reduction when combining fences and tracts	Removes incentive to use fences and tracts	Reduces incentive to combine fences and tracts to a 20% buffer width reduction

SCC 30.62A.320(1)(g) Issue: Combining Methods

Current Code. Subsection (1)(g) provides buffer reduction methods that must be in conjunction with a critical area study showing that the methods used will provide protection equivalent to the standard buffer width requirements without modification. This subsection addresses buffer averaging in sub-subsection (1)(g)(i) and buffer enhancement in sub-subsection (1)(g)(ii). The main subsection (1)(g) allows combination of different buffer reduction methods.

Ordinance 24-097 would revise and repeal some of the buffer reduction methods as described below. In Subsection (1)(g) it would no longer allow combination of buffer reduction methods.

Amendment 3 would retain language in subsection (1)(g) to continue allowing combination of buffer reductions methods. Because it would keep and renumber the current subsection (1)(f) to (1)(g), the current subsection (1)(g) would then become (1)(h).

SCC 30.62A.320(1)(g)(i) Issue: Buffer Averaging

Current Code. Subsection (1)(g)(i) provides standards for buffer averaging. These allow a reduction in buffer width to 50% of standard buffer width, or 25 feet whichever is greater. Buffer width must increase in other locations so that the total area remains unchanged.

Ordinance 24-097 would revise standards for buffer averaging, creating a distinction between buffers for wetlands and buffers for streams, lakes, and marine waters.

- For wetlands, the ordinance would reduce buffer flexibility to a 25% reduction (or 75% of the standard width) or 25 feet, whichever is greater.
- For streams, lakes, and marine waters, applicants could still reduce buffers by 50% or to 25 feet, whichever is greater.

Amendment 3 would reduce flexibility for buffer averaging to allow a 25% reduction (or 75% of the standard width), establishing a new minimum of 30 feet. These changes would apply equally to wetlands and to streams, lakes, and marine waters.

Issue	Current Code	Ordinance 24-097	Amendment 3
Buffer Averaging	Allows reduction of buffer width to 50% of the standard buffer or 25 feet, whichever is greater, in some areas with corresponding increases elsewhere	Reduces flexibility for wetlands to 75% of the standard buffer or 25 feet whichever is greater, retains 50% allowance for streams, lakes, and marine waters, with corresponding increases elsewhere	Reduces flexibility for averaging to 75% establishing a new minimum of 30 feet, AND does the same for streams, lakes, and marine waters, with corresponding increases elsewhere

SCC 30.62A.320(1)(g)(ii), (1)(g)(iii), and (1)(h) Issue: Buffer Enhancement

Current Code. Subsection (1)(g)(ii) allows provides standards for buffer width and area reductions when an applicant proposes buffer enhancement. Different standards apply for enhancement by itself or when applicants combine enhancement with other methods.

- Enhancement by itself in (1)(g)(ii) allows a 25% reduction in both width and area.
- Enhancement combined with permanent fencing in (1)(g)(iii)(A) allows a 30% reduction in both width and area.
- Enhancement combined with separate tracts in (1)(g)(iii)(B) allows a 30% reduction in both width and area.
- Enhancement combined with buffer averaging in (1)(h) can achieve a 50% reduction in width and a 30% reduction in area (assuming use of either tracts or permanent fences).

Ordinance 24-097 does not propose any substantive changes to provisions for when applicants use buffer enhancement by itself. However, the ordinance would repeal the ability to combine enhancement with other methods that also reduce buffer width and area.

Amendment 3 would retain the currently listed options for buffer enhancement, but it would reduce the size of some of the incentives related to buffer widths.

- Enhancement by itself in (1)(g)(ii) would allow a 20% reduction in buffer width and a 25% reduction in area.
- Enhancement combined with permanent fencing in (1)(g)(iii)(A) would allow a 25% reduction in buffer width and a 30% reduction in area.
- Enhancement combined with separate tracts in (1)(g)(iii)(B) would allow a 25% reduction in buffer width and a 30% reduction in area.
- Enhancement combined with buffer averaging in (1)(h) can achieve a 25% reduction in width (based on Table 3) and a 30% reduction in area.

Issue	Current Code	Ordinance 24-097	Amendment 3
Enhancement	**Enhancement Only:** 25% reduction in both width and area	**Enhancement Only:** 25% reduction in both width and area	**Enhancement Only:** 20% reduction in width and 25% reduction in area
	Enhancement Plus Fencing: 30% reduction in both width and area	**No incentive for enhancement with permanent fences**	**Enhancement Plus Fencing:** 25% reduction width and 30% reduction in area
	Enhancement Plus Tracts: 30% reduction in both width and area	**No incentive for enhancement with tracts**	**Enhancement Plus Tracts:** 25% reduction width and 30% reduction in area
	Enhancement Plus Buffer Averaging: 50% reduction in width and 30% reduction in area	**No incentive for enhancement with buffer averaging**	**Enhancement Plus Buffer Averaging:** 25% reduction in width and 30% reduction in area

SCC 30.62A.510(3)(g) Issue: Exemption Thresholds for Small Wetlands

Current Code. Subsection (3)(g) provides exemption thresholds for small wetlands where an applicant may fill the wetland during development subject to use of best management practices as required in Subsection (1). Best management practices described in Subsection (1) are those "physical, structural, or managerial practices which have gained general acceptance by professionals in the appropriate field to minimize and mitigate adverse impacts to the functions and values of critical areas." The thresholds for exemption from protection vary by wetland category and size as follows:

- Category I wetlands are never exempt.
- Category II non-riparian wetlands under 5,000 square feet may be exempt.
- Category III non-riparian wetlands under 5,000 square feet may be exempt.
- Category IV non-riparian wetlands under 10,000 square feet may be exempt.

Ordinance 24-097 would lower exemption thresholds and move the phrasing for the exemptions to Subsections (4) and (5). The result of the new exemption thresholds would be:

- Category I wetlands are never exempt.
- Category II wetlands are never exempt.
- Category III wetlands are never exempt.
- Category IV wetlands under 4,000 square feet may be exempt if meeting certain listed conditions, including not having a habitat function score of 6 or more.
- Category IV wetlands under 1,000 square feet may be exempt outright.

Amendment 3 would lower exemption thresholds, but not by as much as the original ordinance. The result of the new exemption thresholds would be:

- Category I wetlands are never exempt.
- Category II wetlands are never exempt.
- Category III non-riparian wetlands smaller than 5,000 square feet may be exempt if the habitat function score is 5 or less.
- Category IV non-riparian wetlands under 10,000 square feet may be exempt.

Issue	Current Code	Ordinance 24-097	Amendment 3
Exemptions for small wetlands	**Category I**: Cannot be filled	**Category I**: Cannot be filled	**Category I**: Cannot be filled
	Category II: Can be filled if under 5,000 square feet and mitigation provided	**Category II**: Cannot be filled	**Category II**: Cannot be filled
	Category III: Can be filled if under 5,000 square feet and mitigation provided	**Category III**: Cannot be filled	**Category III**: If under 5,000 square feet and the habitat function score is 5 or less can be filled if mitigation provided
	Category IV: Can be filled if under 10,000 square feet and mitigation provided	**Category IV**: Can be filled if under 4,000 square feet and mitigation provided	**Category IV**: Can be filled if under 10,000 square feet and mitigation provided

Appendix C: Chronology of Critical Area Regulations and Requirements in the Context of Ordinance 24-097 and Amendment 3

04/01/1990 The Washington State Legislature enacts the Growth Management Act (GMA) as RCW Chapter 36.70A. Part of the GMA is a requirement that counties adopt development regulations to protect critical areas (RCW 36.70A.060(2) and RCW 36.70A.170(1)(d)). GMA also provided guidelines for how counties should designate and protect critical areas in RCW 36.70A.050.

At enactment, GMA defined critical areas as including the following areas and ecosystems:[1]

(a) Wetlands;
(b) Areas with critical recharging effect on aquifers used for potable water;
(c) Fish and wildlife habitat conservation areas;
(d) Frequently flooded areas; and
(e) Geologically hazardous areas.

RCW 36.70A.050 provides that "the department"[2]

> shall adopt guidelines, under chapter 34.05 RCW, no later than September 1, 1990, to guide the classification of […] (d) critical areas. The department shall consult with […] the department of natural resources regarding forestlands and mineral resource lands, and the department of ecology regarding critical areas [and in] carrying out its duties under this section, the department shall consult with interested parties, including but not limited to [representatives of a wide variety of entities, resulting in guidelines] shall be minimum guidelines that apply to all jurisdictions, but also shall allow for regional differences that exist in Washington state. The intent of these guidelines is to assist counties and cities in designating […] critical areas under RCW 36.70A.170.

These GMA requirements established the framework for subsequent changes to Snohomish County's critical area regulations. Prior to GMA, some regulations had been in code and others were policies adopted for different parts of the county in 13 different subarea plans.

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[1] The GMA definition for critical areas was originally at RCW 36.70A.030(5). In 2012, the Legislature passed Engrossed Second Substitute Senate Bill 5292, which added the clarification that: "'Fish and wildlife habitat conservation areas' does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company." Subsequent additions of other definitions to GMA have moved the definition for critical areas to its current location at RCW 36.70A.030(11).

[2] At time of GMA adoption, "the department" meant the Washington Department of Community Development (*former* RCW 36.70A.030(6) [1990]). In 1994, this became the department of Community Trade and Economic Development (CTED). In 2009, the Washington State department of Commerce replaced CTED as "the department".

04/15/1991 Effective date for WSR 91-07-041[3] which adopts and amends several rules in Washington Administrative Code (WAC) as filed by the department of Community Development pursuant to RCW 36.70A.050, Chapter 34.05 RCW and other authorities. Among the changes is adoption of WAC 365-190-080 regarding critical areas and GMA compliance.

02/01/1992 The Washington State Department of Ecology publishes *Wetland Buffers: Use and Effectiveness*.[4] This document provides guidance on how to comply with the new GMA-based critical area requirements. Appendix A of this document titled *Wetlands Buffers – A Field Evaluation of Buffer Effectiveness in Puget Sound* by Sarah Spear Cooke assesses buffers and their effectiveness for 21 critical areas in King and Snohomish counties. Cooke's overall findings state that the:

> [E]ffectiveness of the buffers in protecting an adjacent wetland depends on the type of buffer in place, the type and size of the wetlands it is protecting, the type of alteration to the buffer […], the width of the buffer, the time elapsed since the change in land use, and the ownership of the buffer and adjacent wetland. (Page 64)

Cooke discusses several criteria in judging the effectiveness of wetland buffers and their functions. For example, some functions relate to the provision of habitat while other functions are also important for judging effectiveness. According to Cooke, "successful buffer function [depends on several factors including] time elapsed since the change in [adjacent] land use, and the ownership of the buffer and adjacent wetlands" (page 85). Cooke identifies human intrusion into protected buffer areas as a major cause of detrimental impacts to buffers after establishment of those buffers. This research identifies use of protective fencing and ownership structure (later use of tracts) as important to long term protection of wetlands and buffer areas.

Protective fencing:

> [O]ne function of a buffer may be prevention of human physical intrusion into a site. A fence may be unattractive, and may allow stormwater drainage to pass through, but if it is a functioning physical barrier, it is at least effective on that level. (Page 74)
>
> Fencing is perhaps the optimum physical barrier if the fence does not have a gate. Fences can also act as visual screens which may afford better protection for wildlife

[3] This document is unavailable at https://leg.wa.gov/state-laws-and-rules/washington-state-register/, perhaps because it pre-dates the filings that can be retrieved from that site. Although WSR 91-07-041 is not readily available in whole, the relevant part for this discussion is in WSR 10-03-085 (Index File 3.4.009) which shows the original form of WAC 365-190-080 as it is first amended.

[4] Index File 3.4.001 Publication Number 92-10, available at: https://library.oarcloud.noaa.gov/noaa_documents.lib/NOS/CZIC/89FFA4.pdf

than shrubs or lawn.[5] Twelve of the 21 sites had fencing along the edge of the adjacent property, although most had gates which allowed entrance to the buffer and subsequently to the wetland. Sixteen of these sites showed evidence of disturbance in the form of disposal of yard waste, and physical deterioration of vegetation due to trampling from the gate access point. (Page 76)

Use of tracts:

Projects dating after 1987 required that the buffers be placed outside of the lots.[6] This requirement had one of the highest impacts to preservation of the buffers in an unaltered state. Projects that incorporated the buffer in the lots always resulted in the loss of the natural vegetation community to lawn over time (i.e. 17 out of 17 eligible sites). Ownership of the buffer appears to mean to the homeowner that it is acceptable to remove natural vegetation and replace the buffer with less [environmentally] valuable, mown-lawn type of buffer. (Pages 82-83)

The critical components of a successful buffer [and] efficiency at protecting the adjacent wetlands [depend on components that include] ownership of the buffer [because] buffers owned by landowners that understand the purpose of the buffer are less impacted. (Page 85)

03/07/1995 The Snohomish County Council passes Amended Ordinance 94-108 (Ordinance 94-108)[7] designating and adopting regulations to protect critical areas pursuant to GMA. This includes new regulations for Fish and Wildlife Habitat, Geologic Hazard Areas, and Streams and Wetlands in a new chapter of Title 32 SCC. For GMA compliance purposes, Ordinance 94-108 incorporates Aquifer Recharge Areas and Frequently Flooded Areas in Chapters 32.11 and 27 SCC respectively.

Of direct relevance to Ordinance 24-097 and Amendment 3, Ordinance 94-108 adopted several methods to reduce buffer widths and buffer areas, allowed exemptions related to certain small wetlands, and required the planning department to begin monitoring the outcomes related to critical area protection.

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[5] It is important to note that Cooke was examining wetland buffers established between 1983 and 1990 when requirements for plantings and use of the buffers were different than today. On page 77, she describes human activities within buffers such as "placement of interpretive walks, decks, or other structures within the buffer, or wetland edge itself, and/or non-native ornamental species in the buffer rather than native species." This is consistent with regulations in the 1980s which allowed more human activities in wetlands and their buffers as well as planting of non-native ornamental vegetation in areas where present-day regulations would require solely native species. Sometimes buffers were simply no-build zones with lawn extending from residences to the edge of a wetland. Today, it is a typical requirement that applicants must retain or restore native vegetation in critical areas and buffers.

[6] Placing buffers outside of lots means placing buffer in separate tracts. Many of the sites studied by Cooke were in King County jurisdictions that required use of separate tracts. Snohomish County code does not require, and has not required, use of tracts. Instead, Snohomish County Code allows applicants to choose whether to use tracts or to place critical areas and buffers in easements on individual lots.

[7] Index File 3.4.002.

Buffer averaging. Ordinance 94-108 allowed buffer averaging with a maximum width reduction to 50% of the standard width or 25 feet, whichever is greater, provided: (a) that the total area of the buffer is not less than the required buffer if a development application had not used averaging, and (b) that the effect of buffer averaging shall not reduce functional values for the stream or wetland under protection (SCC 32.10.570(3)(a) [1995]). Substantially similar code language allowing width reduction to the greater of 50% of the standard width or 25 feet provided that there is no diminishment of functions and values currently exists in code at SCC 30.62A.320(1)(g).

Ordinance 24-097 would create separate buffer averaging standards for wetlands and for streams, lakes, and marine waters (proposed SCC 30.62A.320(1)(g)(i)). For wetlands, it would also revise the averaging standards to become the greater of 75% of the standard width or 75 feet for Category I and II wetlands, 50 feet for Category III wetlands, and 25 feet for Category IV wetlands. For streams, lakes, and marine waters, it would retain the current buffer averaging standards – a minimum of 50% of the standard width or 25 feet, whichever is greater.

Amendment 3 would revise current buffer averaging standards while keeping them the same for wetland and for stream, lakes, and marine waters. As amended, provisions would allow reduction in width to 75% of the standard buffer (with the minimum with being 30 feet when the 75% is applied to the smallest standard buffer which is 40 feet).

Buffer reductions for enhancement. Ordinance 94-108 allowed a buffer width reduction of up to 50% or 25 feet, whichever is greater, and an area reduction of up to 25% for enhancing the buffer (SCC 32.10.570(3)(b) [1995]).[8] Applicants needed to demonstrate that enhancements would increase the functional value of the buffer compared to the standard buffer.[9]

Ordinance 24-097 would continue to allow a 25% reduction of the standard width and area for buffer enhancement, which is largely unchanged from what Ordinance 94-108 adopted. However, Ordinance 24-097 would remove the ability to combine buffer enhancement area reductions with buffer averaging. (Ordinance 24-097 would also

[8] Although width reduction allowed for enhancement uses the same language for the width reduction allowed for buffer averaging, a key different is that buffer averaging results in expansion of buffer area outside the otherwise applicable buffer width to retain overall buffer area. For some sites, this distinction can produce large differences in project design. In the context of Ordinance 24-097, it is helpful to note that the first articulated adoption of the ability to combine buffer enhancement with buffer averaging in code was in 2007 by Ordinance 06-067; however, in practice applicants could propose buffer enhancement with buffer averaging using the innovative development design provisions in Ordinance 94-108 (SCC 32.10.590 [1995]).

[9] The requirement to increase functional value was at SCC 32.10.570(3)(b)(ii) [1995]. Removing human debris and invasive plants and then replanting the area with native species are common examples of enhancement activities.

remove incentives to combine buffer enhancement with buffer width and area reductions that Ordinance 06-061 added in 2007).

Amendment 3 would retain but modify the ability to combine buffer area and width reductions for buffer enhancement with buffer averaging. (It would also retain and modify with other methods of buffer width reduction (use of permanent protective fences or tracts) that were provided for after Ordinance 94-108 and which Ordinance 24-097 proposes to remove).

Exemptions for small wetlands.[10] Ordinance 94-108 adopted exemptions from critical area protections for certain small wetlands. Exemptions included non-riparian Category 2 and 3 wetlands less than 5,000 square feet and non-riparian Category 4 wetlands less than 10,000 from regulatory protections (SCC 32.10.510(3) [1995]).[11] Snohomish County Code has continuously provided these same exemptions up to the present day where they are currently located at SCC 30.62A.510(3)(g).

Ordinance 24-097 proposes to repeal the exemptions allowing fill and mitigation of Category II and III wetlands entirely. It would also reduce the exemptions for Category IV wetlands so that only those Category IV smaller than 4,000 square feet and subject to limitations in *proposed* SCC 30.62A.510(4) and (5) may be exempt.

Amendment 3 to would, like Ordinance 24-097, no longer allow fill of Category II wetlands. For Category III wetlands, it would allow fill and mitigation of those less than 5,000 square feet with a habitat function score of 5 or less. Category III wetlands 5,000 square feet or larger and any smaller than that size with a habitat score of 6 or more would no longer be eligible for filling subject to mitigation. Provisions would still allow filling of Category IV wetlands smaller than 10,000 square feet.[12]

Permanent fencing, separate tracts, and combining incentives. Ordinance 94-108 did not include buffer width reductions for permanent protective fences, separate tracts, or the combination of these actions. Instead, these additions were by Ordinance 06-061 in 2007.

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[10] Changes in stylization of categories have occurred and correspond with state-level guidance on methodology for categorization. For example, where Ordinance 94-108 refers to a Category 4 wetland, the same relative ranking system now uses roman numerals and calls it a Category IV.

[11] The discussion for these exemptions describes code provisions for different categories and sizes of wetlands. It is important to note that definitions and methods for categorizing wetlands have changed during this same period. For example, some wetlands that meet 1995 definitions of Category 4 would now be Category III in present day regulations or might become Category III based on other changes in Ordinance 24-097 or recent updates to the state level wetlands rating system. Wetlands close to the definitional margins of moving from Category 4 to III or from Category 2 to I have received or would receive higher levels of protection over time under the code provisions discussed here.

[12] The discussion of Ordinance 24-097 and Amendment 3 here is to establish lineage of the relevant code provisions. Discussion of reasons for the changes proposed by Amendment 3 appears elsewhere in this staff report and in the proposed finding for Amendment 3.

Monitoring. Ordinance 94-108 Section 4 also included additional direction to Planning and Development Services. Listed item 10 directed that PDS:

> shall prepare an annual report on the impacts of Chapter 32.10 within two years of the adoption of this ordinance. This report will include, at least, average permitting time, cost of permits to the applicant and the amount of land area set aside as critical areas, including buffers under Chapter 32.10.

This direction to PDS regarding annual reporting foreshadows the later monitoring requirements in what came to be known as adaptive management strategies.

06/01/1995 Effective date for the majority of Engrossed Substitute House Bill 1724 (HB 1724)[13], *Integration of Growth Management Planning and Environmental Review*. Among its changes, HB 1724 enacted RCW 36.70A.172, which added the requirement that counties "shall include the best available science in developing policies and development regulations to protect the functions and values of critical areas". This date is important because it established the phrase of Best Available Science (BAS) as a term of law with respect to critical area regulations.

The requirement for local jurisdictions to include BAS in their critical area regulations followed the review and evaluation requirements in RCW 36.70A.130. For Snohomish County, this this meant compliance – inclusion of BAS – by December 31, 2005.

04/30/1996 The County Council passes Amended Ordinance 96-011 (Ordinance 96-011)[14] revising critical area regulations in Chapter 32.10 SCC in response to the Puget Sound Growth Management Hearings Board's decision in *Pilchuck Audubon Society et al v. Snohomish County*, CPSGMHB No. 95-3-0047.

Tracts and Fences. Ordinance 96-011 pre-dates allowances for buffer modifications for use of tracts or permanent protective fencing.

Buffer averaging provisions were essentially unchanged by Ordinance 96-011, with the main difference being a renumbering so that the provisions were then at SCC 32.10.570(1)(c)(i) [1996].

Enhancement. Buffer width reductions for enhancements are moved to SCC 32.10.570(1)(c)(ii) [1996] without any substantive changes.

[13] Index File 3.4.003.

[14] Index File 3.4.004.

Small Wetlands. Among the changes adopted in Ordinance 96-011 is Snohomish County's first codified definition of Best Management Practices (BMPs). This original definition of BMPs defined them as "management measures that are reasonable and available that mitigate adverse impacts to surface and groundwater, and to the functional values of critical areas" (SCC 32.10.110 [1996]).[15] Earlier versions of Critical Area Regulations used the phrase BMPs, but the term had been undefined up to that point.

In the context of Ordinance 24-097, adoption of a definition of BMPs is important in relation to development activities that involve filling of small wetlands. Ordinance 96-011 no longer allowed outright exemption from Critical Area Regulations for the filling of small non-riparian wetlands by striking SCC 32.10.510(3) [1995] and replacing that provision with SCC 32.10.575(1)(f) [1996] which still allowed filling of non-riparian Category 2 and 3 wetlands smaller than 5,000 square feet and Category 4 wetlands smaller than 10,000 square feet, but only conducting such activities pursuant to use of BMPs. Project applicants could still fill small non-riparian wetlands, but new standards applied to the conduct of the work rather than the work simply being exempt from practices designed to minimize secondary impacts.

Other Changes. Ordinance 96-011 retained the urban/rural distinction regarding buffer widths, but it increased buffers for some types of streams and categories of wetlands (SCC 32.10.520 1996]).

Ordinance 96-011 did not include any specific provisions related to BAS, nor did it need to because the deadline for local inclusion was December 31, 2005.

08/27/2000 Effective date for WSR 00-16-064[16] adopted by the Washington State Department of Community, Trade, and Economic Development.[17] Among the changes adopted in this new rule, is WAC 365-195 Part 9 addressing Best Available Science for the first time in the WACs.[18] Since becoming effective, WAC 365-195-900 describes the purpose of BAS guidance as being:

[15] The current Snohomish County definition of BMPs is at SCC 30.91B.090 and means "physical, structural, or managerial practices which have gained general acceptance by professionals in the appropriate field to minimize and mitigate adverse impacts to the functions and values of critical areas." Ordinance 24-097 does not propose any changes to this definition of BMPs.

[16] Index File 3.4.005.

[17] The guidance was originally from CTED; a 2023 change revised these rules to reflect that guidance is now from Commerce, which is the successor agency to CTED.

[18] The same WAC filing that established Part 9 also repealed Parts 1-8 of WAC 365-195.

> intended to assist counties and cities in identifying and including the best available science in newly adopted policies and regulations and in this periodic review and evaluation and in demonstrating they have met their statutory obligations under RCW 36.70A.172(1).

WAC 365-195-905 provides criteria for determining which information is BAS. WAC 365-195-910 provides criteria for obtaining BAS. WAC 365-195-915 includes criteria for including BAS in developing policies and development regulations, including criteria for use of non-scientific information that departs from recommendations derived from BAS. WAC 365-195-920 provides criteria for addressing inadequate scientific information. WAC 365-195-925 provides Criteria for demonstrating "special consideration" in conservation or protection measures necessary to preserve or enhance anadromous fisheries.

These new WACs regarding BAS provided guidance for updates to its critical area regulations that Snohomish County eventually adopted in 2007.

With respect to Ordinance 24-097, it is important to note that in addition to providing guidance for which information is BAS, WAC 365-195-905(c) also provides guidance for when use of non-scientific information may be appropriate, especially when the information available does not:

> exhibit the necessary characteristics for scientific validity and reliability. Information from these sources may provide valuable information to supplement scientific information, but it is not an adequate substitute for scientific information. Nonscientific information should not be used as a substitute for valid and available scientific information.

Guidance in WAC 365-195-905(c) is helpful in situations where there is an absence of scientific information, however, this guidance is incomplete. Scientific information may be valid and relied on under the specific conditions studied; but when applied to different conditions with other underlying assumptions, the same information may not be as scientifically valid. WAC 365-195-905(c) does not say anything about how much weight to give to scientific information that may be an informational benchmark but not representative of a scientifically valid comparison.

12/09/2002 The County Council passes Amended Ordinance 02-064 (Ordinance 02-064).[19] This repeals older regulations from many chapters and consolidates them in Title 30. Critical Area Regulations move from Chapter 32.10 To Chapter 30.62 without substantive change.

[19] Index File 3.4.006.

- Standard buffer widths for stream and wetlands move to Table 30.62.310(1) SCC [2002]
- Provisions for filling small non-riparian wetlands when using BMPs are in SCC 30.62.360(6) [2002]
- Buffer width averaging requirements move to SCC 30.62.350(1)(c)(i)
- Buffer enhancement reductions move to, SCC 30.62.350(1)(c)(ii).

March 2005 The Washington State Departments of Ecology and Fish and Wildlife co-publish *Wetlands in Washington State Volume 1: A Synthesis of the Science* (Wetlands Vol. 1).[20]

Buffer width. Wetlands Vol. 1 discusses buffers and their functions on pages 5-23 to 5-49. It identifies water quality and wildlife habitat as two major categories of functions relevant to the width of buffers. On page 5-26, it summarizes several studies with the following statement:

> By far the issue of greatest interest with respect to buffers is the question of how wide a buffer needs to be in order to be effective in protecting a wetland (or other aquatic resource). While the literature is unanimous that buffers provide important functions that protect wetlands and provide essential habitat for many species, there is wide-ranging discussion about how much buffer is necessary to be effective in providing a particular level of function[.]

The biggest challenge in determining optimal buffer width requirements is that the same buffer area provides different types and degrees of function. Two of the functions discussed in Wetlands Vol. 1, sediment removal and wildlife habitat illustrate the challenge in determining optimal buffer width. Sediment removal is part of the water quality function of buffer areas (pages 5-30 to 5-32). A key point related to buffers and sediment removal:

> Significant reductions in some pollutants, especially coarse sediments and the pollutants adhered to them, can be accomplished in a relatively narrow buffer of 16 to 66 feet (5 to 20 m), but removal of fine sediments requires substantially wider buffers of 66 to 328 feet (20 to 100 m). (Page 5-38)

Increasing buffer widths results in diminishing returns for many functions, including sediment removal. By contrast, many wildlife habitat functions of buffers vary widely depending on species, life stage, surrounding context, and other considerations (pages 5-38 to 5-49). A key point related to buffers and wildlife habitat:

> Synthesis documents that evaluated many studies discussing the protection of

[20] Index File No. 1.0314. Also available at https://apps.ecology.wa.gov/publications/documents/0506006.pdf.

> habitat provided by wetland buffers generally recommend buffer widths between 50 and 300 feet (15 to 100 m), depending on specific factors. These factors include the quality of the wetland habitat, the species needing protection, the quality of the buffer, and the surrounding land uses. (Page 5-49)

There is no specific buffer width that represent a scientific ideal. Recommendations informed by scientific information must still involve judgement calls on which considerations should receive the highest priority.

Wetlands Vol. 1 concludes its discussion of buffer functions with a section titled "Buffer Maintenance and Effectiveness over Time" (pages 5-49 to 5-51). Buffer functions can vary over time based on both natural and human caused changes to the buffer area. Some natural functions of buffer area may degrade over time, including for example the ability to remove sediment from surface water flows as buffers fill with silt. Other functions may diminish based on human activity, which in the context of Ordinance 24-097 and Amendment 3, relate most specifically to protective measures such as use of tracts and protective fencing.

Protective fencing and tracts. Wetlands Vol. 1 includes discussion of the need protect buffer areas in several sections. Regulations should consider long term protection strategies because:

> Human activities are the most common mechanism for altering buffers over time. Buffer functions can be reduced if vegetation is cut or trampled, soils are compacted, sediment loading surpasses the filtering capability of the vegetation, or surface-water flows create channels and subsequent erosion. (Page 5-49)

Regarding fences, Wetlands Vol. 1 cites studies from western Washington and California showing human alteration of buffer areas after establishment of those areas (page 5-50) and suggests installing fences to minimize human encroachment (page 6-67). There is no specific guidance on the design of fences, the inference is that purpose of fences is to discourage human encroachment while impeding the activities of wildlife and functions of natural systems as little as possible.

Regarding ownership, Wetlands Vol. 1 discusses several studies that find degraded buffers in areas with where the ownership appears to be in the form of easements on multiple parcels. On page 5-29, the summary of one study says:

> In his research in urbanizing settings, Booth (1991) notes that buffers adjacent to aquatic resources may have limited ability to filter and slow flows caused by stormwater. He found that (1) in some instances the buffers no longer existed in a natural vegetated condition, (2) once development occurred, and the buffer was subdivided into multiple private ownerships, maintaining an intact buffer was not

> possible, or (3) the increased volumes and rates of flows were too significant to be controlled by conditions within a vegetated buffer.

Although the summary is not specific to ownership structure, the description of a buffer area "subdivided into multiple private ownerships" fits with an approach of dividing ownership of critical areas and buffers into easements on private lots.

Exemptions for small wetlands. Of relevance to options for the fill and mitigation of small wetlands in Ordinance 24-097 and Amendment 3, Wetlands Vol. 1 includes discussion of biological wetlands vs regulated wetlands (pages 5-5 to 5-14). Biological wetlands include all sites that meet the relevant definition of being a wetland. Regulated wetlands are only those that receive protections in the relevant local ordinances. Wetlands Vol. 1 notes that many jurisdictions have a minimum regulated wetland size:

> below which the jurisdiction will not regulate a wetland [based on] the perception that 'bigger is better,' and the belief that small wetlands are less important and did not provide significant functions. The scientific literature of the last 10 years has made it clear that size does matter but not in the way previously believed. (Page 5-6)

Differences exist in how jurisdictions define small, non-regulated wetlands that are exempt from protection in local regulations. Some functions such as stormwater storage and certain aspects of habit are roughly proportionate to the size of the wetland, whereas other functions are not. For example, protecting small wetlands is "important in reducing isolation among wetland habitat patches [protecting small wetlands] reduces the distance between wetlands and thus increases the probability of successful dispersal of organisms" (page 5-14).

In the context of Ordinance 24-097 and Amendment 3, it is useful to consider stormwater-related and habitat-related functions as part of consideration regarding differences in the size and classification of small wetlands that an applicant could fill with use of best management practices.

Fill and mitigation should have an insignificant impact on functions such as stormwater storage and groundwater hydroperiod. New development must comply with the drainage and land disturbing activity regulations in Chapters 30.63A and 30.63B SCC as well as the Snohomish County Stormwater Manual. These ensure that post development conditions "minimize degradation of water quality[,] control the sedimentation of streams, rivers, lakes, wetlands, [and] minimize adverse effects caused by degradation of surface water quality flow patterns or quantities, locations, and changes to hydrologic flow patterns" (SCC 30.63A.010(2)). Constructed facilities

such as underground vaults can effectively mimic some of the stormwater related functions of small wetlands.[21]

Habitat-related functions of small wetlands are not as replaceable by constructed facilities.[22] Although larger habitat areas are generally more important to the lifecycle of many species, reducing isolation between larger habitat areas is one of the functions of small wetlands. Reduced isolation on the landscape allows better movement of animals and genetic exchange of plants.[23]

Buffer enhancement. Wetlands Vol. 1 discusses buffer enhancement as a tool for compensating for the impact of new development by "providing substitute resources or environments" (page 6-4). In this perspective, compensation is for "unavoidable adverse impacts" of new development (page 6-5). Regarding this meaning of the term enhancement, the "scientific literature reviewed for this synthesis did not contain information on the use or effectiveness of any of the mitigation measures defined above [including enhancement], except compensatory mitigation" (page 6-5).

Using enhancement to describe compensation for specific damage to wetlands and buffer areas by new development, Wetlands Vol. 1, says that:

> studies of the effectiveness of compensatory mitigation were emerging, with mixed results. The primary indication was that replacing or replicating an existing wetland was difficult, if not impossible[.] However, some wetland types and functions could be approximated given the proper conditions [and that] mitigation "success" is poorly defined and often contentious [partly because compliance] generally means the same as "legal success" [which may be different than] biological, ecological, or functional success. (Pages 6-6 to 6-7).

Timing is among the challenges in measuring the effectiveness of compensatory enhancement over time. If compensatory mitigation involves replacing invasive species with native plantings, part of legal success may equate to survival of new plantings for

[21] Although Chapters 30.63A and 30.63B and the Stormwater Manual are outside the scope of Ordinance 24-097 and Amendment 3, it is important to note that Snohomish County reviews these requirements periodically and has strengthened them over time to remain in compliance with state and federal regulations. Studies documenting stormwater related impacts to wetlands from development mostly involve older development. The absence of information on impacts from development using contemporary stormwater designs is in part because of the lag between construction, initiation of a study, and the time it takes to perform long term monitoring.

[22] Artificially constructed wetlands can provide similar habitat functions similar as natural wetlands. The comparison between stormwater and habitat functions here is between is between constructed facilities such as an underground stormwater vault rather than an open stormwater pond that might appear to be natural.

[23] Use of the phrase "isolated on the landscape" in this staff report is with the same meaning that Wetlands Vol. 1 uses similar phrasing on page 5-14. Wetlands Vol. 1 also includes discussion of "isolated wetlands" that have special regulatory consideration (including pages 5-11 to 5-12), but these regulatory isolated wetlands have different requirements than the small wetlands where local regulations allow filling and mitigation using best management practices.

a short period of time specified in local ordinances whereas biological success may require maintenance and monitoring over a longer period (page 6-7).

In the context of Ordinance 24-097 and Amendment 3, usage of the word "enhancement" in Wetlands Vol. 1 is similar but defined differently than how county code uses the same word. In county code, enhancement may mean compensatory mitigation for new development with the same as the meaning in Wetlands Vol. 1. However, enhancement in county code can also involve enhancement actions to remedy degradation that occurred prior to a current proposal for development, which is not part of how Ecology is using the word in Wetlands Vol. 1. This subtle distinction is important to later discussion of assumptions made by Ecology in its recommendations that starting conditions are well vegetated with native species and in the context of buffer reductions for enhancing an already degraded buffer as provided for in SCC 30.62A.320(3)(1)(g)(ii).

Buffer averaging. Wetlands Vol. 1 does not directly discuss buffer averaging. Instead, discussion on averaging appears in Wetlands Vol. 2.

April 2005 The Washington State Departments of Ecology and Fish and Wildlife co-publish *Wetlands in Washington State Vol. 2: Guidance for Protecting and Managing Wetlands* (Wetlands Vol. 2).[24] This document provides guidance and a framework for protecting streams and wetlands in local plans and regulations, consistent with GMA and other requirements.

Several parts of Wetlands Vol. 2 were instrumental in developing code provisions adopted by Snohomish County in 2007 in Amended Ordinance 06-061 (Ordinance 06-061). Ordinance 24-097 proposes to remove some of the provisions added by Ordinance 06-061 related to tracts, fences, buffer averaging, and buffer reduction in exchange for buffer enhancement. Amendment 3 to Ordinance 24-097 would instead retain and revise those provisions.

In addition to specific code provisions tied to guidance in Wetlands Vol. 2, Snohomish County's approach to critical area regulations has relied on Wetlands Vol. 2 in other ways as well. In the context of Ordinance 24-097 and Amendment 3, guidance from Wetlands Vol. 2 is relevant to the topics of buffer widths and taking moderate risk approach to critical area regulations and Urban Growth Area sizing.

Tracts: Wetlands Vol. 2 discusses the importance of common ownership in several places including a recommendation that local jurisdictions adopt policies to encourage new development:

[24] Index File 1.0315. Also available at: https://apps.ecology.wa.gov/publications/documents/0506008.pdf.

using flexible lot design, should *include any aquatic resources, prioritized habitats and linkages, and regulated buffers* in separate tracts or easements to remain in common ownership (page 7-16, *italics* original)

As policy advice, Wetlands Vol. 2, recommends placing critical areas and protective buffers in some kind of common ownership status. This is typically accomplished by placing these areas in tracts owned by a homeowners association (HOA). Easements on private lots do not provide the same degree of common ownership, so when referring to easements it is likely Wetlands Vol. 2, is referring to the concept of placing critical area easements on commonly owned tracts or lots that include other uses such as a community playground adjacent to a wetland and its buffer in an easement on the same tract.

In a later section, Wetlands Vol. 2 elaborates on the reasons for and importance of placing critical areas and buffers in common ownership is important. It says that:

> The issue of who owns the area included within a buffer is an important one. There are basically two options:
>
> - The buffer area can be included in a separate tract or lot and held in common ownership by a homeowners association, agency, or non-profit organization
>
> - The buffer can be included in lots owned by adjacent landowners
>
> The second option is often pursued by a developer who wants to divide the buffer among individual lots in order to achieve a required minimum lot size. However, a study by Cooke (in Castelle et al. 1992) of buffer areas in two counties in western Washington showed that **buffers that were owned by many different lot owners were more likely to be degraded over time**. Even with easement language on each lot owner's deed specifying the buffer protection provisions, owners tend to clear buffer vegetation over time to expand lawns, build storage sheds, or serve other uses.
>
> If the buffer area is not held in some kind of common ownership, it is much more difficult to take enforcement action against those landowners who encroach upon its boundaries. Therefore, **when feasible, wetlands and their buffer areas should be placed in a separate, non-buildable tract** that is owned and maintained by an organization that is dedicated to protecting the buffer. **The boundaries of the tract should be clearly marked to help prevent unintentional encroachments.** (page 8-45, **bolding** added)

Drawing protective boundaries on a map does not ensure long-term protection for critical areas and their buffers. Wetlands Vol. 2 references a study finding that placement of critical areas and protective buffers in separate tracts results in stronger long term protection because this results in fewer unpermitted activities in protected

areas than when critical areas and protective buffers are in easements owned solely by the owner of the adjacent residence.

Figure 1, below, illustrates kind of unpermitted activities and impacts this advice is trying to avoid. In this example, clearing activity to construct a retaining wall and the unpermitted expansion of an outbuilding took place in a Native Growth Protection Area easement where the intent of the protective easement was to prevent such activity.[25] Placing critical areas and their buffers in commonly-owned tracts instead of easement on private property reduces the likelihood of this kind of degradation to critical areas and protective buffers.

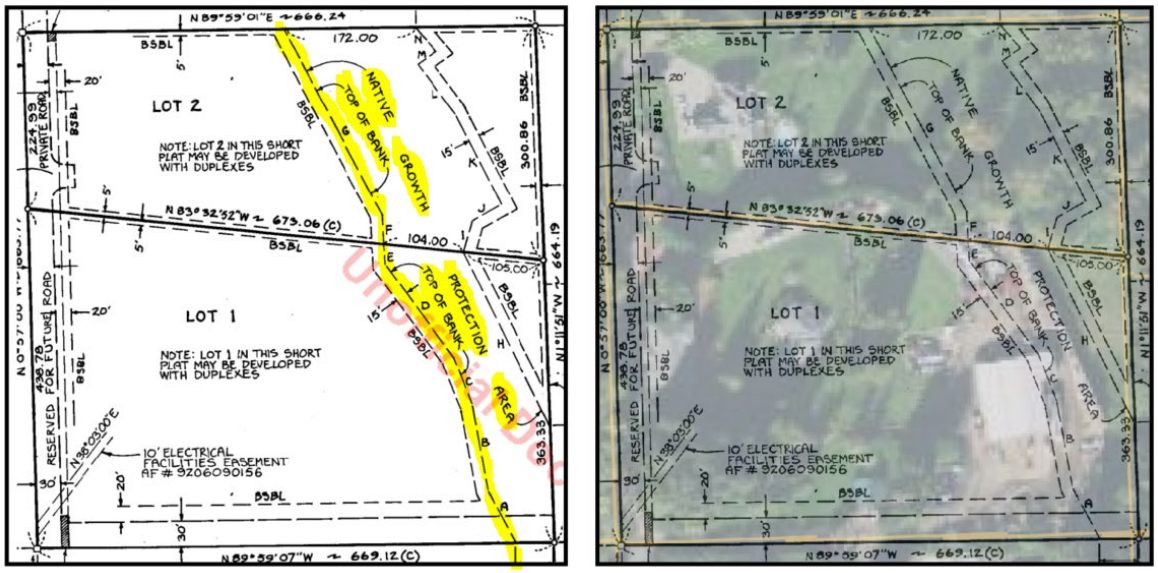

Figure 1 – Example of Protective Easement on Individual Lot and Unpermitted Construction

When encroachments into protective areas on privately-owned easements occurs as in Figure 1, the main enforcement mechanism is complaint-driven action by the Code Enforcement division of Planning and Development Services. If neighbors do not complain about someone impacting critical areas on their own property, then the likelihood of code enforcement action is quite low. Although the construction activity in Figure 1 was part of an investigation by Code Enforcement, resolution did not involve restoration of the critical area and buffer.

Enforcement of protections is more likely to occur when impacts are to a commonly-owned tract where a homeowners association has responsibility to protect. This is in part because encroachment by one party creates a liability for the entire HOA and an incentive for an HOA to use its own enforcement mechanisms or to seek assistance from Code Enforcement to resolve the issue.

[25] See PDS file 20-118804 CI. Also note that the phrasing Native Growth Protection Area in use at the time of the subdivision is equivalent to today's Critical Area Protection Area language.

Figure 2, below, shows a situation where three private backyards expanded onto adjacent property that is now part of a Critical Area Protection Area (CAPA) tract owned by the neighboring HOA, including placement of a basketball court in the CAPA. The parties were able to achieve resolution of this situation without resorting to involvement of the Code Enforcement division.

Figure 2 – Example of Encroachment into a Tract Owned by an HOA

Fences: Wetlands Vol. 2 discusses fences in several places. At page 8-44, it describes fences as an action that can "reduce impacts to wildlife habitat" by limiting human and pet intrusion. This is important to "help mark the boundary [of a critical area], and to help educate landowners about the purpose and value of protecting buffer areas" (because education signage is a typical requirement on the fence, page 8-45). These functions of a fence are important enough that Wetlands Vol. 2 defines use of fences for this purpose as part of the "protection/maintenance (preservation)" of wetland acreage and functions (Glossary, page 15).

Buffer Averaging: Wetlands Vol. 2 discusses buffer averaging in several locations. It describes buffer averaging as:

> a tool for balancing buffer protection with specific site needs for development, or for tailoring a buffer to maximize protection of natural features in the wetland or surrounding upland. […] Typically this is done to allow development to occur closer than usual to the wetland in order to fit a particular development "footprint" onto a given site. However, it can also be used to protect a natural feature (e.g., a stand of trees or snags) that otherwise would fall outside of the standard buffer. Buffer averaging can also be used to provide connections with adjacent habitats or to address those situations where pre-existing development has reduced a buffer area to a width less than the required standard.
>
> Criteria for averaging buffer widths typically require a minimum buffer width (either a designated width or a percentage of the standard buffer width) and documentation to ensure that the averaging of the buffer will improve, or at least, not impair overall buffer functions. Ideally, buffer widths should be narrowed in an area where it will cause the least disturbance and widened in an area where it will benefit the wetland the most. (Page 8-40)

In a technical appendix with greater detail, Wetlands Vol. 2 prefaces its discussion with a statement that:

> There is no scientific information available to determine if averaging the widths of buffers actually protects functions of wetlands. The authors have concluded that averaging could be allowed in the following situations: […] Averaging to **improve wetland protection** [and] Averaging to allow **reasonable use**[.][26] (Appendix 8-D, pages 12-13, bolding original)

To elaborate on improved wetland protections, Wetlands Vol. 2 discusses an example of a "dual-rated" wetland with a Category I area adjacent to a lower rated area. In this scenario, Wetlands Vol. 2 suggests that regulations can increase improvement of wetland protection by allowing averaging where the:

> buffer is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less

[26] The reasonable use part of the discussion is not relevant to Ordinance 24-097 since the purpose of such provisions is to allow some development on a pre-existing parcel that might otherwise be entirely unbuilding under present day critical area protections, so the focus here is on the effect of buffer averaging on wetland protection.

> sensitive portion [and where the] buffer at its narrowest point is never less than 3/4 of the required [standard] width[.[27]] (Appendix 8-D, page 13)

This approach focuses on increasing protection of the most valuable critical areas in trade for lower protections of the lower rated critical areas.

Enhancement. Wetlands Vol. 2 provides a definition of enhancement that fits with how Wetlands Vol. 1 used the word. Wetlands Vol. 2 also provides several related definitions, some of which include notes that illustrate how the meaning of certain words can drift over time as regulations evolve. The following definitions from Wetlands Vol. 2 are instructive to the same or similar words with different meanings in the context of Ordinance 24-097 and Amendment 3.

> **Enhancement.** The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. (Glossary Page 6, bolding original)

This definition of enhancement in Wetlands Vol. 2 overlaps with how Snohomish County Code treats enhancement, but there are important differences. Planting of native vegetation and removal of non-native species are typical activities that both version of the word have in common.

County regulations define enhancement as:

> alteration of an existing shoreline habitat to improve or increase its ecological characteristics and processes without degrading other existing functions. Enhancements are to be distinguished from resource creation or restoration projects. (SCC 30.91E.125)[28]

[27] Note that Snohomish County adopted provisions allowing for buffer averaging to 50% of the standard width in 2007. These provisions were challenged and upheld. In 2022, Ecology provided updated guidance in which the discussion of buffer averaging where the width "should be no narrower than 75% of the standard buffer" is part of a "moderate risk approach" to determining appropriate buffers rather than a fixed rule.

[28] SCC 30.91E.125 also includes the following note: "This definition applies only to "Shoreline" regulations in chapters 30.44 and 30.67 SCC and Wetlands and Fish and wildlife habitat conservation areas regulations in chapter 30.62A SCC." This note clearly shows that the word applies to both shoreline and other types of critical area regulations.

Whereas enhancement in county code excludes activities that degrade existing functions, usage in Wetlands Vol. 2 does allow for a decline in some wetland functions. A key difference is in the assumed starting conditions of the critical and buffer areas. Wetlands Vol. 2 is silent on the starting conditions, while enhancement in Snohomish County Code assumes that degradation can be a starting condition. This distinction is important in the context of amendments to SCC 30.62A.320(1)(g)(ii) proposed in Ordinance 24-097. Snohomish County Code creates an incentive for an applicant to improve an already degraded site, but the applicant must provide a comparative analysis that demonstrating that there is not net loss of function and value. As later clarified by Ecology, Wetlands Vol. 2 is referring to enhancement activities on a site that is already "well vegetated with native species".[29]

Buffer Widths. Wetlands Vol. 2 discusses buffers in urban areas on pages 8-46 to 8-47. It recognizes that "the science on buffers comes largely from agricultural and forestry settings and is perceived to be irrelevant to urban areas" arguing that this perception of irrelevancy in urban areas is in error because of important habitat functions provided by critical areas in urban settings. Urban habitat is of increased importance in part because "there is little other upland habitat available". While presenting a case to preserve and restore connections between habitats in urban areas, Wetlands Vol. 2 also states that "a good stormwater management program can reduce the need for buffers to perform filtration functions". Wildlife habitat and water quality protection have different buffer width requirements that can vary depending on context and other requirements.

For buffer widths in urban areas, Wetlands Vol. 2 recommends that local jurisdictions regulate critical areas in a way that "identifies, prioritizes, and protects the most important wetland, riparian, and upland habitats".

UGA Sizing. Wetlands Vol. 2 does not specifically use the phrasing of UGA sizing, but it does address the issue in terms of balancing GMA mandates. Referring to buildable land requirements of RCW 36.70A.215 without citing them, Wetlands Vol. 2 say that:

> The issue of balancing wetland protection with competing mandates in the GMA is a legitimate one that can be addressed in a number of ways. A buildable lands survey with a good wetlands inventory can provide important information on the actual conflicts that may exist (rather than a perceived conflict). (Page 8-47)

Here, Wetlands Vol. 2 recognizes the importance of information on the impacts of critical area regulations to UGA capacity as part of decision-making regarding potential changes to those same critical area regulations.

[29] Discussion of this "well vegetated with native species" assumption appears in several places later in this report.

Although not stated in Wetlands Vol. 2, a logical conclusion of increasing buffer widths without offsetting measures to increase UGA capacity is that such actions may improve habitat preservation in urban areas but may also lead to expansion of urban areas into locations where habitat is comparatively more intact.

06/01/2005 Snohomish County publishes two documents: *Preliminary Draft Critical Areas Regulations* and *Draft Summary of Best Available Science for Critical Areas* supporting the draft regulations. These draft documents reflect work that began in 2001 and are a milestone in a lengthy public review process that continues after publication.[30] A revised draft superseded this this preliminary draft in March 2006 and is the version ultimately relied on.

12/31/2005 GMA deadline for adoption of critical areas regulations incorporating Best Available Science (RCW 36.70A.130 and RCW 36.70A.172). Although Snohomish County missed this deadline, the State did not place any sanctions on the county or take any other actions for enforce compliance because local progress toward compliance was underway.

03/28/2006 Snohomish County Planning and Development Services publishes *Revised Draft Summary of Best Available Science, March 2006*.[31] There was no "final" version of this report published. This revised draft provides much of the basis for amendments to critical area regulations in Ordinance 06-061. It is also frequently referred to in documents related to Ordinance 24-097. Stylistically, some of the later references do not use the word "revised" in their description of the title, but they do refer to the March 2006 date.

08/01/2007 The County Council passes Amended Ordinance 06-061 (Ordinance 06-061)[32] amending Critical Area Regulations in Title 30 SCC. This was in large part to incorporate Best Available Science. Organizationally, Ordinance 06-061 repealed Chapter 30.62 SCC and moved the three types of critical areas that had been previously in that one location to separate chapters. These new chapters remain the current location and are Chapter 30.62A (Wetlands and Fish & Wildlife Habitat Conservation Areas), 30.62B (Geologically Hazardous Areas), and 30.62C (Critical Aquifer Recharge Areas).

Tracts and fencing. Ordinance 06-061 added buffer width reductions for the use of tracts and permanent protective fencing for the first time (SCC 30.62A.320(1)). The

[30] See Finding E of Amended Ordinance 06-061 (Index File 3.4.007). The June 2005 preliminary draft does not appear to be part of the index of records for Ordinance 24-097, likely because a revised draft superseded it.

[31] Index File 1.0131.

[32] Index Files 3.4.007 and 3.4.008. Ordinance 06-061 adopted several documents. The main ordinance is Index File 3.4.007. This also included separate Exhibits for different new critical areas chapters in code. Exhibit A, Index File 3.4.008, contains Chapter 30.62A SCC Wetlands and Fish & Wildlife Habitat Conservation Areas, which is the only Exhibit directly relevant to Amendment 3 to Ordinance 24-097.

reduction was up to 15% of the buffer width if the sole protective measure was the use of tracts or use of fencing. When combining tracts with permanent fencing, buffer width reductions up to 25% were possible. When combing tracts with buffer enhancement, buffer width and area reductions of up to 30% became authorized.

To explain the new buffer width reductions when using tracts, Ordinance 06-061 included County Council Findings L.8.d (page 21) and L.10.n (page 31).

Finding L.8.d states that:

> CAPAs [Critical Area Protection Areas] are required to be established as separate tracts in subdivisions unless inside an Urban Growth Area where CAPAs may be easements on individual lots or parcels. This change simplifies the provisions improving critical area protection in rural areas yet allowing more flexibility in urban growth areas to support urban development densities.

Since most new development is in Urban Growth Areas, this finding recognizes that provisions allowing use of CAPA easements or tracts does not automatically afford the long-term protections offered by tracts relative to easements. Addition of the tract incentives would increase the likelihood of long term protection of critical areas and buffers in UGAs where most of the new development occurs.

Finding L.10.n begins by saying:

> The proposed regulations allow limited buffer reductions as long as there is no net loss of functions and values. Reductions may be achieved through averaging, enhancement, designation in separate tracts and/or installation of fencing. Maximum allowed reductions are limited to 25-30% of the prescribed width and area and, for averaging, up to 50% in width which can only be achieved when measures are used in combination.
>
> i. The County has utilized similar flexibilities in the past under authority of the existing critical areas regulations. Through experience, the county has determined these measures to provide effective protection for critical areas.
>
> ii. These flexible standards are also supported by guidance from DOE in Wetlands in Washington State Volume 2: Guidance for Protecting and Managing Wetlands[33], section 8.3.8, April, 2005.
>
> [Additional sub-findings describe the advantages of providing flexibility in regulations, the balancing of GMA goals, and the county's long-term monitoring and adaptive management program.]

[33] Index File 1.0315.

This finding (L.10.n) describes the purpose of incentives to use tracts and permanent protective fences. Much of the justification for encourage use of tracts and protective fences is based on the guidance by Ecology and Fish and Wildlife in Wetlands Vol. 2, as described above. Although these incentives were not previously explicit in county code, the statement in sub-finding L.10.n.i that the "County has utilized similar flexibilities in the past under authority of existing regulations" refers to previous buffer modifications given for tracts and fences to applicants who were using innovative development design provisions that have existed as part of various County critical area regulations since at least the first GMA-based regulations.[34]

Buffer Averaging. Ordinance 06-061 retained the dimensional flexibility for buffer averaging that had been in code since at least Ordinance 94-108 (up to a 50% reduction in width or 25 feet, whichever is greater). However, when Ordinance 06-061 moved buffer averaging to is current location at SCC 30.62A.320(1)(f)(i)). It also added a requirement that the applicant provide a critical area study demonstrating "protection equivalent to the standard requirements" (SCC 30.62A.320(1)(f)). This addition was based on guidance in Wetlands Vol. 2 which describes the use of buffer averaging, "Ideally, buffer widths should be narrowed in an area where it will cause the least disturbance and widened in an area where it will benefit the wetland the most" (Page 8-40). The addition by Ordinance 06-061 of the critical area study was to achieve the ideal described in Wetlands Vol. 2. In other words, the critical area study would ensure against overall functional loss. This would occur by tightening buffer widths in less functionally valuable areas while expanding buffer widths in areas of greater functional value.

Enhancement. Ordinance 06-061 moved provisions for buffer reduction through enhancement to their present location at SCC 30.62A.320(1)(f)(ii). The newly established critical area study requirements in SCC 30.62A.320(1)(f) discussed above also became a requirement for buffer reductions that used enhancement.

Ordinance 06-061 also added provisions for applicants to combine enhancement with permanent fencing, separate tracts, and buffer averaging, and to receive increased allowance for reductions in buffer width and area.[35]

[34] In Ordinance 94-108, Innovative Development Design (IDD) was at SCC 32.10.590. Ordinance 06-061 moved IDD to its present location at SCC 30.62A.350.

[35] These changes in Ordinance 06-061 provided the first time code clearly articulated the ability to combine these reductions. However, applicant had received approval for similar reductions by using the separate provisions for innovative development design. Articulation in code simplified procedural steps that would lead to comparable results. This is another example of "similar flexibilities in the past under authority of existing critical area regulations" that finding L.10.n discussed above was referring to.

Ordinance 24-097 would repeal the allowances to combine enhancement with permanent fencing, separate tract, and buffer averaging that Ordinance 06-061 adopted.

Amendment 3 would retain but modify the provisions for enhancement that Ordinance 24-097 proposes to repeal.

Exemptions for small wetlands. Ordinance 06-061 moved the exemptions for fill and mitigation of small wetlands to their present-day location at SCC 30.62A.510(3)(g). The exemptions thresholds were unchanged from those previously adopted in Ordinance 94-108: Applicants could fill non-riparian Category II and III wetlands smaller than 5,000 square feet and Category IV wetlands smaller than 10,000 square feet, and their associated buffers when using best management practices.

Monitoring. Section 110 of Ordinance 06-061 relates to monitoring and development of an adaptive management plan, requiring that the County:

> shall develop and implement a plan to monitor environmental conditions to determine if the county is meeting the standard of "no net loss" of critical area functions and values. This plan shall determine a baseline from which to measure future conditions; identify measurable parameters as indicators of critical area functions and values; set thresholds that indicate loss of functions and values; and establish an adaptive management strategy employing corrective measures to prevent further net loss. (Ordinance 06-061 page 129)

This requirement for monitoring and adaptive management led to the *Critical Areas Monitoring Report* series produced by Planning and Development Services in cooperation with the Surface Water Management division.

02/19/2010 Effective date for WSR 10-03-085[36] which addresses new GMA requirements and makes several organizational changes in the WACs as filed by the Washington State Department of Commerce. These changes include shortening WAC 365-190-080 to current form and purpose. Organizational changes move rules regarding different individual types of critical areas to the following new WACs:

- WAC 365-190-090 (Wetlands)
- WAC 365-190-100 (Critical Aquifer Recharge Areas)
- WAC 356-190-110 (Frequently Flooded Areas)
- WAC 365-190-120 (Geologically hazardous Areas)
- WAC 365-190-130 (Fish and Wildlife Habitat Conservation Areas)

[36] Index File 3.4.009, available at: https://lawfilesext.leg.wa.gov/law/wsr/2010/03/10-03-085.htm.

06/09/2010 The Snohomish County Council passes Amended Ordinance 10-026 (Ordinance 10-026).[37] This ordinance updates stormwater regulations in Chapter 30.63A. Changes adopted by Ordinance 10-026 were based on best available science and other requirements.

Although stormwater regulations do not directly involve code provisions discussed by this analysis of Ordinance 24-097 or Amendment 3, there are notable effects of Ordinance 10-026 on the current topics of consideration.

Ordinance 10-026 made significant updates to requirements for best management practices and other requirements when conducting land disturbing activities and designing stormwater facilities. These apply to all development projects. Updated stormwater requirements are important in the context of Ordinance 24-097 and Amendment 3. Properly designed stormwater facilities help mimic some natural functions of buffer areas, such as pollution removal and maintenance of groundwater hydroperiod. In this way, stormwater facilities can replace (or mimic) certain functions otherwise performed by buffers. While applicable to all development, the updated stormwater and best management practice requirements in Ordinance 10-026 significantly raised the bar on practical mitigation requirements for applicants choosing to use exemptions that allowed the fill of small wetlands.

June 2016 Ecology publishes *Wetland Guidance for CAO Updates Western Washington Version*, Publication No. 16-06-001 (Wetland Guidance 2016).[38]

Wetland Guidance 2016 provides recommendations and guidance to local jurisdictions in updating their critical area ordinances. This document describes a key assumption underpinning many of the other recommendations in its guidance:

> **Ecology's buffer recommendations are also based on the assumption that the buffer is well vegetated with native species appropriate to the ecoregion.** If the buffer does not consist of vegetation adequate to provide the necessary protection, then either the buffer area should be planted or the buffer width should be increased. (Page 13, bolding original)

This assumption that buffers are already well vegetated with native species may be necessary to establish a baseline from which Ecology can derive the assumptions that guide its agency recommendation. However, assuming conditions area already well vegetated with native species does not reflect the starting conditions for most permits for new development in Snohomish County, especially within UGAs. Most new

[37] Index File 3.4.010.

[38] Index File 1.0126

development in Snohomish County is redevelopment of existing uses. Vegetative conditions in critical areas and buffers at the time of permit application are extremely variable. Some critical areas are mostly intact, especially in non-urban parts of the county. However, in urban areas where most of the new development is occurring, the starting conditions at time of permit application often provide minimal existing vegetation and it is often in the form of non-native ornamental landscaping, invasive plants, or simply of non-vegetative conditions permitted long before contemporary critical area requirements.[39]

July 2020 The Washington Department of Fish & Wildlife (WDFW) publishes *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications* (Riparian Ecosystems, Vol. 1).[40] This document focuses on Priority Habitats and Species (PHS), especially in riparian ecosystems. It summarizes prior research and provides some of the foundation for PHS-related amendments incorporated in Ordinance 24-097.

The conclusion section of Riparian Ecosystems, Vol. 1 includes the following statements:

> Our review of the literature presents a substantial body of scientific research with which to develop strategies, plans, or policies regarding the pollutant removal functions of riparian areas. The central problem faced by resource managers is determining the adequate riparian buffer width, composition, and structure to protect water quality with high degrees of efficacy, efficiency, and certainty. Riparian function is often simplistically characterized by buffer width and vegetation type, but these parameters only partially explain the effects that riparian areas have on pollutant removal. The current conservation paradigm remains strongly tied to the premise that wider riparian areas are the only way to increase pollutant removal efficacy, but this is not always the case; other site-specific factors, such as conditions within the buffer, also exert a significant influence on removal efficacy. Therefore, consideration of the entire system (i.e., riparian area, uplands, vegetation, soils, ground and surface water pathways, topography, type of pollutant, etc.) is essential to developing cost effective pollutant removal. In theory, buffer width and vegetation could be optimized for site conditions such that water quality is protected while minimizing economic costs for landowners.
>
> Despite the many scientific uncertainties, management decisions must be made. Management decisions regarding pollutant removal by riparian buffers should be informed by science, but determining the "right" buffer width for pollutant removal cannot be purely scientific. Determining the "right" buffer width begins with choosing a desired removal efficacy, and that choice is normative. That is, the desired removal

[39] See further discussion of the vegetated with native species assumption in the discussion of Wetland Guidance 2022 (October 2022) where Ecology provides an updated description of the "well vegetated with native species" assumption.

[40] Index File 1.0155. Available at: https://wdfw.wa.gov/sites/default/files/publications/01987/wdfw01987.pdf.

> efficacy is a social choice influenced by cultural values, economic costs, and risk tolerance. Choosing a desired removal efficacy and determining the "right" buffer requires: 1) factual information regarding the anticipated impacts or outcomes of policy options (i.e., science); 2) an understanding of stakeholders' priorities and preferences (i.e., values); and 3) a process for using science and values to explore tradeoffs amongst policy options[.] (Pages 150-151)

In these conclusions, WDFW recognizes that for riparian buffers, decisions on management – such as specific development regulations – includes not just scientific information but also inclusion of stakeholder values in the decision making process.

Although the conclusions of Riparian Ecosystems Vol. 1 recognize the importance of non-scientific information, the focus of Vol. 1 is to establish a scientific basis for WDFW's then forthcoming recommendations in Vol. 2. Regarding Scientific information compiled by WDFW, at page 295, there is discussion of how WDFW identifies sources of information to be relied on before the agency takes significant action. This includes government agency documents, including "Policy and regulatory documents adopted by local governments" consistent with (RCW 34.05.271(1)(c)(v)(D)). In the context of Ordinance 24-097, this is relevant because the *2024 Critical Area Regulations Monitoring Report* published by Snohomish County and discussed further below qualifies as a local governmental policy and regulatory document that the County could use to modify the management recommendations from WDFW.

12/17/2020 WDFW publishes *Riparian Ecosystems, Volume 2: Management Recommendations* (Riparian Ecosystems Vol. 2).[41] This volume provides WDFW's key recommendations specific to Fish and Wildlife Habitat Conservation Areas. It describes what WDFW considers to be the appropriate Riparian Management Zone (RMZ), includes recommended policies and practices for protecting RMZs, describes the importance of restoration, and makes recommendations related to monitoring programs and regulation.

Ordinance 24-097 includes many amendments in response to recommendations from Riparian Ecosystems Vol. 2 (and other sources provided by WDFW). These include recognition of priority habitat species as mapped by WDFW, increasing buffers for Type F streams that are without anadromous fish or resident salmonids, and changes in marking and delineation of fish and wildlife habitat conservation areas. Description of amendments in Ordinance 24-097 that agree with recommendation from WDFW are in the ordinance findings and materials from Planning and Development Services.

[41] Index File 1.0156. Available at: https://wdfw.wa.gov/sites/default/files/publications/01988/wdfw01988.pdf.

Buffer width is a key topic where Ordinance 24-097 and Amendment 3 differ from recommendations in Riparian Ecosystems Vol. 2.

Riparian Ecosystems Vol. 2 recommends determining the RMZ based on the Site Potential Tree Height after 200 years ($SPTH_{200}$) and includes a minimum recommended width of 100 feet for pollution removal. $SPTH_{200}$ can vary widely as the "dominant trees in riparian old-growth forest of Washington range from 100 to 240 feet" (page 18). In locations where dominant species do not reach 100 feet after 200 years, the recommendation is to apply a 100-foot buffer for pollution removal purposes (pages 26-27).

On page 27, WDFW acknowledges that "establishing a standard RMZ width for 100% pollution removal even at the site scale [would be] impractical" due to the width necessary to achieve full pollutant removal. Instead, WDFW recommends a 100 foot minimum to reflect what it judges to be a balanced approach to removal. Additionally, WDFW recommends that counties identify high intensity land uses that may be located adjacent to riparian areas and "establish wider RMZs to enhance the pollution removal function in these locations as well, following guidance from Ecology."[42]

For western Washington (including Snohomish County), WDFWs objective in making its recommendations is that they would result in:

> fully functioning riparian ecosystems [that contain] structurally complex conifer-dominant forest [exhibiting] large diameter trees, contain[ing] numerous large snags and logs, and [that] have multi-layered canopies and canopy gaps, which promote understory plant diversity. (Pages 16-17)

Ordinance 24-097 does not include recommendations from Riparian Ecosystems Vol. 2 related to Site Potential Tree Height nor does it increase buffer widths for all stream types that currently have standards widths less than 100 feet to 100 feet.

09/08/2021 The Snohomish County Council adopts the *2021 Buildable Lands Report for Snohomish County* (2021 BLR).[43] This report fulfills a GMA requirement (RCW 36.70A.215) to determine densities that the county and its cities have been achieving and then to evaluate the sufficiency of urban growth area development capacity to achieve adopted (2035) growth targets. At preface page v, the 2021 BLR presents its key

[42] The deference shown here to guidance from Ecology as it applies to buffer width for fish and wildlife habitat conservation areas is important in the context of buffer averaging changes proposed in Amendment 3 to Ordinance 24-097.

[43] Index File 3.4.011. Available at: https://snohomishcountywa.gov/DocumentCenter/View/84919/Letter-to-Dept-of-Commerce---Snohomish-County-Buildable-Lands-Report?bidId=.

findings, which include that there is "adequate land capacity to accommodate the adopted 2035 total UGA population, housing and employment growth targets."

In its discussion of methodology, the 2021 BLR describes how unbuildable land was "removed from the buildable land inventory" and that such unbuildable lands included "critical areas and buffers" as were in effect during the sampling period for the data used (preface, page iv).

Two points from 2021 BLR are especially relevant to discussion of Ordinance 24-097, Amendment 3, and testimony received regarding capacity. First, there have been no major changes in critical area regulations between the data sampling period for the 2021 BLR and the regulations currently in effect. In other words, the methodology used in the BLR would provide effective modeling of capacity under current critical area regulations, but not of capacity after adoption of Ordinance 24-097. Second, the urban population and housing targets for 2035 were 815,132 people and 330,518 total housing units.[44]

02/23/2022 The Snohomish County Council passes Ordinance 22-003 adopting population and employment growth targets for 2044 that appear in Appendix B of the Countywide Planning Policies (CPPs).[45] These targets are the basis for plans the County and its cities must adopt in 2024 as part of each jurisdictions periodic comprehensive plan update.[46]

For 2044, the urban population target is 992,120 (176,988 more urban residents than in 2035). The 2044 urban housing unit target is 430,067 (99,549 more urban dwelling units than in 2035).

October 2022 Ecology publishes *Wetland Guidance for Critical Areas Ordinance (CAO) Updates*, Publication #22-06-014 (Wetland Guidance 2022).[47]

Well vegetated with native species assumption. Wetland Guidance 2022 provides an updated version of the well vegetated with native species assumption.[48] This reads:

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[44] These 2035 targets represent combined county and city urban growth areas. They do not include population and housing in rural, resource, and tribal areas of Snohomish County.

[45] Index File 3.4.012.

[46] The County Council adopted separate housing unit growth targets by Ordinance 23-062 on July 19, 2023, and included those in Appendix B of the CPPs as well. Discussion of housing unit targets appears here to simplify comparison with the 2035 targets discussed for the 2021 BLR.

[47] Index File 1.0124. Available at: https://apps.ecology.wa.gov/publications/documents/2206014.pdf.

[48] Additions in Wetlands Guidance 2022 compared to Wetlands Guidance 2016 are in underline as follows:

> **Ecology's buffer recommendations are based on the assumption that the buffer area is well vegetated with native species appropriate to the ecoregion.** If the required buffer area does not consist of native vegetation

> **Ecology's buffer recommendations are based on the assumption that the buffer area is well vegetated with native species appropriate to the ecoregion.** If the required buffer area does not consist of native vegetation adequate to provide the necessary protection, then either the buffer area should be planted or the buffer width should be increased (i.e., buffers should not be reduced in exchange for planting them). Planting a buffer with sufficient vegetation avoids an increase in buffer width. (Page 21, bolding original)

As with the 2016 version of this assumption, Ecology is saying that the type and amount of vegetation within a buffer is important to critical area functions and values. If a site has little native vegetation, then Ecology recommends increasing the buffer width or planting (with it implied that plantings should be native) to restore the starting conditions to something more closely matching the base assumptions made by Ecology.

The additional guidance in 2022 that "buffers should not be reduced in exchange for planting them" is from a perspective that holds to assumptions that rarely match existing conditions and development regulations at the time of development application. Snohomish County Code does not generally require larger buffers for sites with degraded starting conditions.[49] The second piece of additional guidance in 2022 that "Planting a buffer with sufficient vegetation avoids an increase in buffer width" also seeks to establish facts on the ground that fit with Ecology's base assumptions.

While there is no scientific reason to dispute that a well vegetated buffer of native species is desirable, guidance that ignores typical on-the-ground realities is of limited assistance to jurisdictions such as Snohomish County where most of the new development is occurring as redevelopment of areas that are already in a degraded state. Put differently, unless there is an incentive to plant degraded buffers with native species, then most development applicants will not do so.

Guidance from Ecology is based on starting conditions that are seldom representative of sites undergoing (re-)development in Snohomish County. The limited data based on comparable starting conditions weakens the argument for strict usage of the guidance provided. Scientific validity requires controlling data for the relevant variables. If the sample size is not large enough, or if the base data do not match, then observations

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adequate to provide the necessary protection, then either the buffer area should be planted or the buffer width should be increased <u>(i.e., buffers should not be reduced in exchange for planting them)</u>. <u>Planting a buffer with sufficient vegetation avoids an increase in buffer width.</u>

[49] Exceptions exist, such as for when the degraded conditions are the result of non-permitted activities. When this is the case, permit approval may require restoration of damaged critical areas at ratios of area that result in increased buffer widths. However, degraded starting conditions are usually the result of past activities that met the requirements in effect when the activity occurred.

from studies of non-representative samples can provide informational benchmarks but not conclusive evidence. Differences between the actual conditions in Snohomish County and the assumptions made by Ecology mean that studies fitting with the Ecology assumptions are informative but not conclusive. Strict application of such studies may not exhibit the necessary characteristics for scientific validity and reliability. The absence of guidance based on comparable starting conditions may justify other approaches in local regulation based on other types of information as contemplated in WAC 365-195-905(5)(c) and for addressing incomplete scientific information in WAC 365-195-920.[50]

Moderate Risk Approach. Wetland Guidance 2022 includes recommendations regarding buffers that it describes as a "moderate-risk approach". In elaborating on what moderate-risk means and providing guidance to local jurisdictions, Wetland Guidance 2022 says that:

> risk is addressed by tailoring the degree of protection to several factors the scientific literature says are important. The widths recommended in this guidance were selected from the middle of the range of buffers suggested in the literature. In combination with other strategies like limiting buffer reductions, buffer averaging, and exemptions, it represents a moderate-risk approach to determining buffer widths. To learn more about how Ecology evaluated these recommendations in the context of risk, see Wetlands [Vol. 2]. As you work on your CAO's wetlands chapter, Ecology can provide feedback, recommendations, guidance, and support. We recognize that each jurisdiction will have unique circumstances and needs. (Page 2)

Here, Ecology is recognizing the continued importance of local circumstances and decision making as well as the continued usage of Wetlands Vol. 2 as guidance for local regulatory decisions. This includes guidance in Wetlands Vol. 2 regarding buffer widths and UGA sizing.

Tracts. Wetland Guidance 2022 discusses securing long-term protection of wetlands and buffers, favoring use of tracts over use of easements. The rationale given is that:

> Wetlands and their buffers need long-term protection to prevent degradation over time. Protection includes site ownership with legal mechanisms to prevent future development and buffers that serve to maintain the wetland functions. Site

[50] Note that WAC 365-195-905(5)(c) has remained unchanged since its adoption in 2000. Commerce, however, amended WAC 365-195-920 on April 29, 2023, to add a new Subsection (2) regarding use of ongoing permit implementation monitoring and adaptive management. This 2023 guidance from Commerce modifies the 2022 guidance from Ecology. The timing of these changes of guidance and the need for PDS staff to modify work for Ordinance 24-097 that was already underway contributed to the transmittal of the ordinance by PDS to the County Council with little time to consider and act before the statutory deadline.

ownership, deed restrictions, and conservation easements are examples of legal mechanisms.

The most effective long-term protection is to place the wetland and buffer in a non-buildable tract that is owned and maintained by an organization dedicated to protecting them. The boundaries of that tract should be clearly marked to help prevent unintentional encroachments. Delineation, recording, and signage clearly denoting the buffer and wetland area helps prevent degradation over time. (Page 33)

Permanent Fences. Wetland Guidance 2022 discusses the important of permanent fencing to project wetlands and buffers. It states that "a permanent, wildlife-friendly fence is generally necessary to demarcate the outer boundary of the buffer and to limit human and pet access" (page 25). It recommends that an "applicant shall be required to install a permanent fence along the boundary of the wetland buffer when adjacent activities could degrade the wetland or its buffer" (page A-12) to place the burden of installing protective fencing on the developer rather than the jurisdiction or homeowner. It also says that "providing structural protection like fences and signs [to preserve wetlands and buffers] does not result in a gain of aquatic resource area or functions but may result in a gain in functions over the long term" (page A-18). Fences do not directly contribute to habitat functions, but they do function as protection of habitat areas and this projection in turn contributes to better long-term habitat functions than might otherwise be the case.

04/29/2023 Effective date for WSR 23-08-037[51] which, among other things, updated rules in WAC 365-195 Part 9 related to Best Available Science other WACs related to critical areas. Among the rule changes filed by Commerce:

WAC 365-195-905, *Criteria for determining which information is the best available science*. Subsection (2):

Counties and cities may use information that local, state or federal natural resource agencies have determined represents the best available science consistent with criteria set out in WAC 365-195-900 through 365-195-925. The department will ((~~make available a list of resources that state agencies have identified as meeting the criteria for best available science pursuant to this chapter~~))work with state agencies to identify resources that meet the criteria for best available science. Such information should be reviewed for local applicability.

WAC 365-195-910, *Criteria for obtaining the best available science*. Subsection (2):

[51] Index File 3.4.013. Available at: https://lawfilesext.leg.wa.gov/law/wsr/2023/08/23-08-037.htm.

Consultation with state and federal natural resources agencies and tribes can provide a quick and cost-effective way to develop scientific information and recommendations. State natural resource agencies provide numerous guidance documents and model ordinances that incorporate the agencies' assessments of the best available science. The department can provide technical assistance in obtaining such information from state natural resources agencies, developing model GMA-compliant critical areas policies and development regulations, and related subjects. ((~~The department will make available to interested parties a current list of the best available science determined to be consistent with criteria set out in WAC 365-195-905 as identified by state or federal natural resource agencies for critical areas.~~))

WAC 365-195-920, *Criteria for addressing inadequate scientific information*. A new Subsection (2) was added:

(2) Ongoing permit implementation monitoring and adaptive management.
(a) In addition to the use of formal scientific approaches to monitoring and adaptive management program as an interim approach as described above, the department recommends counties and cities develop and maintain ongoing monitoring and adaptive management procedures to ensure implementation of critical area regulations is efficient and effective. Counties and cities should consult department guidance documents for information.
(b) Steps in developing permit implementation monitoring and adaptive management programs include:
(i) Determining the reasons for monitoring;
(ii) Establishing key objectives and study questions;
(iii) Designing the monitoring program;
(iv) Determining the monitoring time frame; and
(v) Evaluating results and making recommendations.

WAC 365-196-210, provides definitions of terms not defined in GMA, including addition of a new definition at WAC 365-196-210(23) as follows:

(23) "Mitigation" or "mitigation sequencing" means a prescribed order of steps taken to reduce the impacts of activities on critical areas. As defined in WAC 197-11-768, mitigation means:
(a) Avoiding the impact altogether by not taking a certain action or parts of an action;
(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

(e) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
(f) Monitoring the impact and taking appropriate corrective measures.

WAC 365-196-485, regarding relation of critical area requirements to the comprehensive plan, included addition of WAC 365-196-485(2)(e) as follows:

The department recommends counties and cities review plan, regulation and permit implementation monitoring results and, where applicable, incorporate adaptive management measures to ensure regulations are efficient and effective at protecting critical area functions and values.

WAC 365-196-830, regarding protection of critical areas, the guidance related to functions and values changed in Subsection (6) as follows:

Functions and values must be evaluated at a scale appropriate to the function being evaluated. Ecosystem functions ((~~are the conditions and processes that support the ecosystem. Conditions and processes~~))and values operate on varying geographic scales ranging from site-specific to watershed and even regional scales. Some critical areas, such as wetlands and fish and wildlife habitat conservation areas, may constitute ecosystems or parts of ecosystems that transcend the boundaries of individual parcels and jurisdictions, so that protection of their function, and values should be considered on a larger scale.

07/23/2023 Effective date of Substitute Senate Bill 5374 (SB 5374).[52] This bill authorizes cities with a population fewer than 25,000 to adopt their county's critical area regulations by reference. RCW 36.70A.060(4).

As of this writing, Council staff has no information regarding whether any cities in Snohomish County have or intend to adopt the County's critical area regulations.

January 2024 Snohomish County publishes the *2024 Critical Area Regulations Monitoring Report* (2024 Monitoring Report).[53] This report studied land cover and other changes to critical areas between 2009 and 2021, evaluating and comparing the results against predetermined adaptive management thresholds. Such thresholds represent levels at which functions and values might be affected. (Page 4)

The 2024 Monitoring Report concludes that:

[52] Index File 3.4.014. Available at: https://lawfilesext.leg.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/Senate/5374-S.SL.pdf?cite=2023%20c%20225%20s%202.

[53] Index File 3.4.015. Available at: https://snohomishcountywa.gov/DocumentCenter/View/133404/2024-Critical-Area-Regulations-CAR-Monitoring-Report-PDF?bidId=

> Overall, the County's CAR regulations are helping to preserve the functions and values associated with critical areas given significant growth and development. However, there have been incremental increases in impervious area and forest cover changes in critical areas over the twelve-year period that exceed Adaptive Management Thresholds. Permit protections were found largely to be effective, meaning unpermitted actions, natural events, and other stressors are likely the major causes of critical area changes. (Page 12)

These conclusions indicate that current regulations are mostly working. Unpermitted human activity is major contributor to critical area damage. Natural events like migration of river channels, and other stressors such as climate change are also affecting critical areas (but outside the scope Ordinance 24-097).

The focus of the 2024 Monitoring Report was on macro functions such as land cover that readily lend themselves to measurement on a basin scale. However, measurement of changes at this scale does not reliably translate to measurement of impacts such as localized stormwater control. Given the data sources, objectives, and limitations of the 2024 Monitoring Report, its conclusions are informative to broad policy making regarding development regulations, but not necessarily conclusive to regulatory decisions involving specific functions and values. Consistent with guidance in WAC 365-195-915 and 365-195-920, the 2024 Monitoring Report represents scientific information on the overall impacts of current regulations but is not as relevant to specific impacts to individual functions and values.

04/23/2024 PDS staff provide a briefing to the Snohomish County Planning Commission (Planning Commission) on the CAR Update.[54] The code changes described by PDS represent that department's interpretation of BAS, gaps in the information available, and practical application of this information to county code.

05/28/2024 The Washington State Department of Fish and Wildlife (WDFW) sent a letter to the Planning Commission.[55] Among the points in this letter, WDFW asks for greater buffer widths than proposed by PDS in the CAR update. As described by WDFW, widths should be variable depending in part on the Site Potential Tree Height (STPH) in the riparian management zone for trees within the site when those trees are 200 year old. Data for SPTH varies on species, but WDFW estimates this value to be between 100 and 260 feet. To maintain full riparian function, WDFW recommends "riparian management zone widths of $SPTH_{200}$ or 100 feet, whichever is greater at a given site" (page 2).

[54] Agenda is index File 2.0001. Supporting documents provided by PDS to Planning Commission are Files 2.0002 to 2.0012.Minutes of the meeting is File 2.0013. File 2.0014 is an audio recording.

[55] Index file 2.0063.

WDFW's recommendations would require determining the actual buffer size after an evaluation of the tree species present on a proposed development site.

It is unclear how WDFW is using the word "site" and how that would apply to code. In county code, site means the parcel proposed for development. Imagine a stream that meanders inside and outside of a parcel proposed for the development. Suppose a first scenario where the portion of the buffer area on the parcel is solely vegetated with vine maples and that there is a Douglas Fir immediately offsite on the adjacent parcel. Under ideal conditions, vine maples rarely grow taller than 30 feet and a 200-year old Douglas Fir can exceed 260 feet. Using WDFWs proposed rule, would be buffer be 100 feet (which is greater than the height of a 200-year old vine maple) or 260 feet (based on the nearby offsite presence of a Douglas fir within the same riparian ecosystem)? Alternatively, would the buffer measurement be the greater extent of 100 feet from the stream (based on vine maples) plus an additional buffer of 260 feet from the location of the Douglas fir? Although scientific information can inform decisions on policy and code, the guidance from WDFW does not fully address practical considerations that apply to writing code and to the review of development permits.

Use the same imaginary stream above and suppose a second practical scenario. In this, the buffer area is currently without trees and is the vegetation is instead a briar of invasive blackberry. County code currently provides an incentive to remove the blackberry and replant with native vegetation, including trees. However, if the buffer widths were to be based on the potential 200-year height of the tree species planted as recommended by WDFW, then there would be no incentive for a developer plant Douglas fir because this species would cause the buffer size to increase. Increased buffer sizes also cause the developable area for the project to decrease. Strict application of WDFWs guidance would create a disincentive for applicants to plant tall trees.

WDFWs guidance appears to make the same starting assumption as Ecology which is that the starting condition at any given development site is that it is already well vegetated with native species. This is only sometimes the case; more often in rural areas and less often for redevelopment sites in urban areas.

Although WDFW addressed its letter to the Planning Commission, it observed a "disconnect" between the buffers in effect and as proposed by PDS and WDFWs interpretation of recommendation in studies of intact riparian ecosystems. WDFW added that is seeks "understand the county's differing interpretation of the science" (page 2).

This report by County Council staff notes that Planning Commission is not necessarily the body with expertise to respond to what WDFW describes as a disconnect between county code and WDFW's recommendations based in its interpretation of scientific

information. The scientific information relied on by WDFW is largely from studies of sites already well vegetated with native species. These conditions are not representative of the starting conditions for most new development in Snohomish County.

WAC 365-195-905(5)(a) describes the characteristics of a valid scientific process, saying in part that:

> In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the public participation process is reliable scientific information, a county or city should determine whether the source of the information displays the characteristics of a valid scientific process. When weighing scientific information contained in the record for inclusion, counties and cities must weigh the scientific information contained in the record based on its scientific validity.

WDFW's recommendations assume starting conditions for a development that match the conditions in the studies used to develop those recommendations, in effect making recommendations based on studies of sites that began as fully vegetated with native species. WDFW's recommendations do not clearly address application to sites in urban areas where the starting conditions are not already well vegetated with native species. This not to say that WDFW's recommendations carry no weight, but rather that WDFW's guidance is a reference point from which local jurisdictions can adopt differing code provisions. Differing provisions should be supported by other information as provided for in WAC 365-195-920. Other information that the County Council may consider includes practical questions regarding the application of code and the alternative incentive structures established by code or as adoption of WDFWs recommendations might establish for new development. The paragraphs above highlight some practical questions and discuss incentive structures.

05/28/2024 The Planning Commission begins its hearing on the CAR Update.[56] PDS provided a memo addressing several questions asked at the April 23 briefing.[57] PDS provided a different memo addressing refinements in the proposed code based on ongoing review by the department including new literature and state level requirements.[58] In the discussion, Commissioner Campbell stated a preference that the CAR Update use the most recent manuals from Ecology and Fish and Wildlife and requested

[56] The agenda is Index File 2.0015. Minutes of the meeting is File 2.0020. File 2.0021 is an audio recording.

[57] Index file 2.0017.

[58] Index file 2.0018.

information from PDS on the impact to buildable land and housing capacity.[59] After public testimony, the Planning Commission closed the hearing to further public testimony, began deliberations and decided it needed more information. The Planning Commission continued its deliberations to the next meeting in part to allow time for PDS staff to respond to questions.

06/25/2024 Date in the index of records for an email from PDS staff to the Planning Commission with information on the impacts of alternative stream buffers.[60] Here PDS provides responses to some of the impact on capacity questions raised by commissioners in their May 28 deliberations. The memo provides comparison of current regulations to three alternative scenarios for buffers. For unincorporated urban growth areas, the effect on housing unit capacity ranges from 363 units (alternative buffer scenario #2) to 1,200 housing units (alternative buffer scenario #3). This units represent 0.7% to 2.4% of the unincorporated UGA housing capacity, respectively.

06/25/2024 The Planning Commission resumes it hearing on the CAR update. At the conclusion of the hearing, the Planning Commission recommended approval of the ordinance CAR update substantially as presented to it by PDS. In its June 27, 2024, letter transmitting its recommendations to the County Council, the Planning Commission included the following statement:

> During the public hearing and continued deliberations, the Planning Commission discussed the trade-offs associated with critical areas at length. Commissioners expressed concern for both the protection of the natural environment, as well as the creation of new housing for the region's growing population. While the Planning Commissioners opted to not put forth an amendment on the topic, some members wished to express concern about the removal of flexible buffer options related to fencing, separate tracts, and enhancement in exchange for width reductions. The Planning Commission expressed a desire for the County Council to continue this discussion and consider how to create flexibility for developers when buildable land is removed due to the presence of critical areas.[61]

The discussion by the County Council of possible amendments to Ordinance 24-097 in Amendment 1 (withdrawn) and Amendment (3) are consistent with the desire of the

[59] Commissioner Campbell's statements begin at 29:50 of File 2.0021. The part about using the most recent guidance begins at 32:40. Following discussion among several commissioners of impacts to housing affordability and buildable lands [housing capacity] Commissioner Campbell then begins a statement at 47:00 and indirectly asks for information from PDS regarding the impact of using the buffer guidance from Ecology and Fish and Wildlife. Further discussion between commissioners and PDS staff follows. At 1:23:00 Commissioner Campbell makes a motion to defer [continue] deliberations for one month to obtain more information, seconded by Commissioner Ash, and then approved by the Planning Commission.

[60] Index File 2.0083.

[61] Index File 2.0090, page 2.

Planning Commission to continue consideration of buffer options the impact of those options on buildable land capacity.

12/04/2024 The Snohomish County Council adopts nine ordinances that collectively make up the 2024 Update to the Snohomish County Growth Management Act Comprehensive Plan. Among the actions taken was Amended Ordinance 24-030 (Ordinance 24-030)[62] which expanded the Southwest Urban Growth Area by approximately 378 acres. This action to address a "residential capacity shortfall by adding 2,312 additional population capacity and 821 additional housing unit capacity to the Southwest UGA" (page 3, Finding C).

The finding of a capacity shortfall relied on the 2024 UGA Land Capacity Analysis (2024 LCA)[63] which showed that the UGA expansion would result in housing unit capacity safety factor of only 4.2% of the projected 20-year need (until 2044). Page 20 of the land capacity analysis describes the methodology used, which is relies heavily on the methodology in the 2021 Buildable Lands Report (2021 BLR). However, the 2024 LCA assumed higher densities in the future than were observed and used in the 2021 BLR. The 2024 LCA also included an increased expectation that properties would be available on the market for redevelopment due to a longer time horizon to the methodology and assumptions used in the 2021 Buildable Lands Report.

The 2024 UGA land capacity analysis did not assume elimination of the buffer reduction options as proposed in Ordinance 24-097. The buffer assumptions used in the 2024 UGA land capacity analysis derive from average observed buffer widths from past development as found in the 2021 BLR. Many of the developments studied in the 2021 BLR used the buffer reduction options proposed for removal by Ordinance 24-097. One effect of removing the buffer options on the land capacity analysis would be to increase the average buffer width modeled. Increased average buffer widths would reduce the amount of buildable land and resulting estimates of land capacity.

There is no information in the record for Ordinance 24-097 providing quantified analysis of the impact of the ordinance on housing capacity. The closest point of reference in the record with numerical data is the 6/25/24 memo from PDS to the Planning Commission (Index File 2.0083 discussed above) which analyzed potential impacts of alternative buffers that are not part of Ordinance 24-097.

The absence of quantitative buildable lands analysis of how Ordinance 24-097 as originally proposed or as potentially modified such as by Amendment 3 means that there is a lack of information to fully evaluate the trade-offs between larger buffers and UGA sizing. Suppose the changes proposed in Ordinance 24-097 would have an

[62] Index File 3.4.016.

[63] Index File 3.4.017.

impact on capacity that is equal to the alternative 3 buffer scenario described in the 6/25/24 PDS memo because that scenario represents the worst case capacity impact that was modeled. The 6/25/24 PDS memo finds that scenario would likely cause a 2.4% reduction in overall housing capacity. If the supposition presented here Ordinance 24-097 as presented to Council would have a similar effect on capacity as alternative buffer scenario 3, then there would still be a 1.8% housing unit capacity safety factor in the UGA after adoption of Ordinance 24-097. This is based on the premise in the 2024 LCA that the UGA sizing safety factor is 4.2% and that Ordinance 24-097 might reduce capacity by around 2.4% (4.2% minus 2.4% equals 1.8%).[64]

12/17/2024 The County Council Planning and Community Development Committee discusses Ordinance 24-097. The committee received agency comments from WDFW and Ecology.[65] Council staff present a draft version of Amendment 1. Council discussed the ordinance, draft amendment, and moved the Ordinance to General Legislative Session the following day to set time and date for a hearing.

12/18/2024 In General Legislative Session, the County Council set January 15, 2025, as the first hearing date for Ordinance 24-097.

01/15/2025 The County Council holds the first hearing on Ordinance 24-097. After receiving extensive testimony and discussing possible amendments, the County Council moves the ordinance back to committee to gather further information and to allow refinement of potential amendments.

03/18/2025 The County Council hosts a discussion with a panel of experts and stakeholders to gather more information. Panelists discuss critical areas, critical area regulations, and the impacts of those regulations on various interests including the environment, housing, and tribal rights.

04/23/2025 The County Council sets May 14, 2025, as the date for a continued hearing on Ordinance 24-097 and amendments.

05/15/2025 The County Council continues its hearing on Ordinance 24-097.

[64] This supposition is a thought experiment, not a rigorous study or assertion that the impact of both actions would necessary be equivalent. By removing options for applicants to achieve buffer reductions, Ordinance 24-097 would effectively increase buffers widths and area, but not by as much as buffer alternative 3 would likely result in. However, Ordinance 24-097 also reduces the ability to fill and mitigate small wetlands that exempt from regulation. Buffer scenario 3 did not model any changes to exempt wetland requirements. Arguments on the potential impacts are informed speculation at best.

[65] Both agencies provided written comments that, closely mirror their verbal comments, but which also include supporting documents. See Index File 3.3.009.

Appendix D: Washington Department of Fish and Wildlife (WDFW) Issues

WDFW Testimony to the Snohomish County Council Planning and Community Development Committee, December 17, 2024, Index File 3.3.009, summarizes concerns that WDFW has raised. This letter describes WDFW's primary concern as involving buffer reductions currently allowed for installation of protective fencing and use of tracts. It also recommends a minimum of 100 feet for all riparian buffers for pollution removal.

Buffer reductions. WDFW's written testimony states the following:

> Our primary concern regards the buffer reduction allowances for aquatic critical areas. Amendment 1 would maintain rather than strike **buffer width reductions of 15-25% without a critical area study or mitigation plan requirement.** Establishing a fence and/or separate tract does not protect nor replace the ecological functions and values provided by stream buffers. Such buffer reductions are likely to degrade water quality, increase erosion and flooding impacts, and compromise fish and wildlife habitat, placing both streams and people at greater risk.

This staff report focuses on Amendment 3, which has replaced Amendment 1. Amendment 3 would retain and modify some of the buffer width reductions referred to above. Amendment 3 includes findings that rely on studies available in BAS (e.g. Cooke 1992) and guidance from Ecology and WDFW that recommend use of protective fencing and tracts to help ensure long term protection of critical areas and buffers (including Wetland Buffers (1992), Wetlands Vol. 1 (2005), and Wetland Guidance (2022)). This is consistent with conclusions in the 2024 Critical Areas Monitoring Report that existing protections are largely effective and that unpermitted actions were a major cause of degradation to critical areas after development. Incentives to install protective fencing and to place critical areas and their buffers in separate tracts were specifically adopted in compliance with BAS and to reduce unpermitted actions that may degrade habitat, reducing functions and values.

> We strongly advise against adopting code that permits reductions to riparian buffer widths without application of the full mitigation sequence. [WAC 197-11-768] Because adopting Amendment 1 will result in a net loss of critical area values and functions, [WAC 365-196-830(4)] **we recommend retaining the full deletion of subsection (f) on page 52 of the proposed ordinance.** (Page 2, bolding original, footnote citations changed to brackets)

It is also unclear why WDFW cites WAC 365-196-830(4) to ask for the full deletion of subsection (f). It appears that WDFW misunderstands that subsection (f) has been in effect since 2007 and that monitoring of regulations that include subjection (f) has found existing regulations to be largely effective (see discussion of the 2024 Critical Areas Monitoring Report). Among its requirements, WAC 365-196-830(4) provides that counties may "allow some localized impacts to critical areas, or even the potential loss of some critical areas" in their development regulations. When this is the case, action must include best available science and other non-scientific information (WAC 365-196-830(5)) and that functions and values of critical areas must be evaluated at a scale appropriate to the function being evaluated (WAC 365-196-830(5)). Large scale functions and values are measured over time in the 2024 Critical Areas Monitoring Report. Meanwhile, avoidance of impacts on an ecosystem

scale happens primarily through countywide actions evaluated and taken in the 2024 comprehensive plan update.

WDFW's letter continues:

> Furthermore, this amendment [Amendment 1] appears to be unnecessary to maintain capacity for growth inside of Urban Growth Areas. The county's buildable lands report concluded that **the county already has adequate land capacity to accommodate the adopted 2035 population, housing, and employment growth targets.** (Page 2, bolding original)

The information on capacity cited in WDFW's December 17, 2024, comments is out of date. As described in the chronology section (Appendix C) of this staff report, Snohomish County expanded the Southwest Urban Growth Area on December 4, 2024, to maintain a housing capacity safety factor for growth to the year 2044. The relevant land capacity analysis for the 2024 comprehensive plan update calculates that there is a housing unit capacity safety factor of just 4.2% of the projected housing unit need. Over a 20-year plan, new construction would absorb 5% of the housing unit capacity in a typical year. Therefore, the comprehensive plan currently in effect has a housing unit safety factor of less than one year's worth of the anticipated growth.

Buffer Width: Issue 1, Site Potential Tree Height. WDFW's letter includes a specific request for consideration of $SPTH_{200}$. One of the attachments to the letter is a comparison of county riparian critical area ordinances, identified as a January 10, 2025 draft. Page 2 of this draft comparison includes the following statement attributed to Clark County:

> Staff has prepared an analysis of the impact of using Site Potential Tree Height for non-fish bearing streams on the land area in the county available for meeting other GMA goals, finding that the proposed Riparian Habitat designation balances Critical Areas protection with other GMA goals. It is also notable that Washington Department of Fish and Wildlife and the Lower Columbia Fish Recovery Board support the proposed Riparian Habitat designations.

Inclusion of this statement suggests that $SPTH_{200}$ may be an aspirational recommendation rather than a firm position of WDFW.[66] This may be in part because of the practical challenges in implement $SPTH_{200}$ that the chronology section of this staff report discusses in detail. One assumption made by WDFW in its recommendations is that the starting condition of a development site is that it is already fully vegetated with native species. This is often not the case, especially in urban areas where most of Snohomish County's development is occurring.

[66] Related to interpretation of WDFW comments on buffer width is the March 18, 2025, *WDFW Statement in Response to the Snohomish County Council's Questions to the Critical Areas Regulations Panel*. This statement recommends "Full inclusion of WDFW's riparian BAS recommendations, particularly noting that no riparian buffer width should fall below 100 feet" (page 3). Note that although the statement does not explicitly call for consideration of $SPTH_{200}$, the intent of the reference to WDFW's riparian recommendations may include $SPTH_{200.}$ The varying nature of its comments make the strength of WDFW's desire to see $SPTH_{200}$ used in local regulations unclear.

Buffer Width: Issue 2, Fish. WDFW's letter provides an overall concern regarding buffer width with the following statement:

> Our overarching concern with the proposed Critical Areas Regulations is [with] the **standard required stream buffers** in Table 2a. First, in our best available science synthesis, we found no support for establishing buffer widths based on fish presence.

This statement overlooks guidance from Ecology in Wetlands Vol. 2 that recommends that local jurisdictions regulate critical areas in a way that "identifies, prioritizes, and protects the most important wetland, riparian, and upland habitats" (page 8-47).[67] Federal, state, and local regulations and policies make protection of salmon and bull trout habitat the highest priority. Protections of other fish bearing streams are the next priority. Non-fish bearing streams are the lowest priority.

Buffer Width: Issue 3, minimum width for pollutant removal. The second overall concern in WDFW's letter relates to minimum stream buffer widths, summarizing the issue as follows:

> Second, we recommend Riparian Management Zone widths based on their ability to provide full riparian function. **At a minimum, a width of 100 feet is needed to achieve the pollution removal function**, though the other riparian functions may be compromised even at this minimum width. We strongly urge the county council to reconsider our concerns about the proposed standard stream buffer widths, **especially for the non-fish bearing (Type N) streams at 50 feet, or only half the minimum recommended width**. (Pages 1-2, bolding original)

These comments from WDFW express concern about non-fish bearing streams where the standard buffer in SCC 30.62A.320 Table 2a is 50 feet.[68] This comment seems to overlook the potential for constructed stormwater facilities to achieve adequate pollutant removal. As stated in Wetlands Vol. 2, "a good stormwater management program can reduce the need for buffers to perform filtration functions" (page 8-46).

A reason for not considering the role of constructed stormwater facilities in pollution removal may be because for Western Washington, WDFW's objective in making its recommendations is to re-establish "fully functioning riparian ecosystems [that contain] structurally complex conifer-dominant forest [exhibiting] large diameter trees, contain[ing] numerous large snags and logs, and [that] have multi-layered canopies and canopy gaps, which promote understory plant diversity" (Riparian Ecosystems, Vol. 2, pages 16-17).

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[67] Although Wetlands Vol. 2 focuses on wetland protection, WDFW says on page 27 of its Riparian Ecosystems Vol. 2 that it recommends following guidance from Ecology when regulating for high intensity land uses when adjacent to riparian areas (aka streams and associated buffers). Since the most frequent application of stream buffers in Snohomish County in urban areas with high intensity land uses, WDFW's formal guidance to all local jurisdictions in the state seems to differ from the agency's specific comments on Ordinance 24-097.

[68] Streams with anadromous fish or resident salmonids have a standard buffer of 150 feet. Streams with other types of fish have a standard buffer of 100 feet in current code (SCC 30.62A.320 Table 2a), but ordinance 24-097 proposes to increase this 150 feet. Amendment 3 would not alter the proposed increase in standard buffer widths for all Type F streams to 150 feet.

As discussed in the chronology section of this staff report, artificial stormwater facilities do not replace habitat functions and thus cannot help to restore fully functioning forests in an urban setting. However, as described in the context of the 2024 comprehensive plan update and urban land capacity analysis, current regulations (which include artificial stormwater facilities that manage pollution) are part of the assumptions behind current urban growth area boundaries which protect forested riparian ecosystems outside the UGA. These areas are generally less degraded as a starting point than ecosystems within the UGA and a higher priority for protection in policies adopted as part of the comprehensive plan.

Guidance in best available science is clear that for most functions and values, the part of the buffer closest to a critical area is the most important. The County's 2024 Critical Areas Monitoring Report has found that existing regulations are largely effective at protecting functions and values. Although WDFW has presented its reasons for recommending larger buffers as primarily about ensuring pollutant removal (which stormwater management regulations can achieve in other ways), some portion of the recommendations for larger buffers are likely also based on WDFW's broader objective in achieving fully functioning riparian ecosystems. This broader objective of WDFW may not be compatible with Snohomish County's obligations under GMA to maintain capacity for 20 years of projected housing growth.

Conclusion. Council staff review of WDFW's objections over existing code provisions and changes proposed in Ordinance 24-097 does not find anything requiring changes to either current code or amendments to what the Executive proposed in Ordinance 24-097. Ordinance 24-097 includes many technical updates that have not received comment. This staff report does not discuss actions to adopt the technical changes in Ordinance 24-097 because these the staff report takes these for granted. In other words, adoption of Ordinance 24-097 or a substitute that makes many of the same revisions must happen to maintain overall compliance.

WDFW has not had an opportunity to review and comment on Amendment 3 as of the writing of this staff report. However, the analysis of prior WDFW comments above would suggest that for some issues WDFW would likely see Amendment 3 as bringing incentives regarding use of tracts, protective fences, and buffer enhancement closer to their recommendations than code as it currently exists, but not as close to WDFW's recommendations on Ordinance 24-097 would take things. On other issues Amendment 3 would revise code in a manner that brings local requirements closer to WDFW's recommendation than what Ordinance 24-097 as originally proposed would do. WDFW would likely see Amendment 3 as an improvement to Ordinance 24-097 with respect to buffer averaging near streams (only allowing a 25% reduction in width rather than a 50% reduction) and in increasing overall buffer width minimums (requiring a minimum width of at least 30 feet rather than 25 feet) and by reducing buffer width reductions that are in exchange for buffer enhancement.

The County Council has discretion to take a variety of actions to balance competing priorities and obligations. These include adoption of Ordinance 24-097 with or without Amendment 3. All options currently under consideration can cite sources in best available science for support and appear to be compliant with the requirements reviewed in this staff report.