

**PLANNING COMMISSION**

**May 19, 2026**

**6:30 PM**

**Planning Commission**

**a. Call to Order**

**b. Pledge of Allegiance**

**c. Roll Call**

**d. Consent Agenda**

1. Minutes from March 17, 2026 Planning Commission Meeting

**e. General Public Comments**

Please keep comments to three minutes or less. Because state law prohibits the use of city facilities for the purpose of supporting or opposing a campaign or ballot proposition, we respectfully request that public comment not make reference to such matters.

Written comments will be accepted by letter or via email at [nmcgowan@sedro-woolley.gov](mailto:nmcgowan@sedro-woolley.gov) Attn: 'Public Comment.' until 4:30pm the day before the meeting.

**f. Public Hearing(s)**

**g. Unfinished Business**

**h. New Business**

1. Updates to Chapter 17.65 SWMC *Regulations for Critical Areas* - Gap Analysis Discussion

**i. Information/Discussion Items**

1. Updates to Chapter 2.90 SWMC *Consolidated Planning Procedures* - Coming Soon

**j. Adjournment**

**PLANNING COMMISSIONERS**

Pat Huggins	Matthew Desvoigne	Madison Bowman	
Joe Fattizzi	Jessica Jasper	Joe Franett	Cassandra Sexson

The City of Sedro-Woolley complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, limited English proficiency, age, disability, or sex. The City of Sedro-Woolley doesn't exclude people or treat them differently because of race, color, national origin, limited English proficiency, age, disability, or sex.

The City of Sedro-Woolley also complies with applicable state laws and doesn't discriminate on the basis of creed, gender, gender expression or identity, sexual orientation, marital status, religion, honorably discharged veteran or military status, or the use of a trained dog guide or service animal by a person with a disability.

Join Zoom Meeting

<https://us06web.zoom.us/j/98042863482?pwd=dnpVeXp4YUJYQVBtdm10VTZ2VVlyZz09>

Meeting ID: 980 4286 3482

Passcode: 070388

---

One tap mobile

+12532050468,,98042863482#,,,,\*070388# US

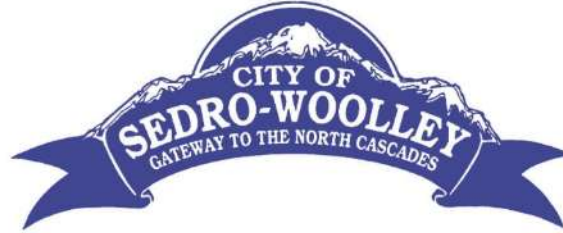
+12532158782,,98042863482#,,,,\*070388# US (Tacoma)

---

Dial by your location

• +1 253 205 0468 US

• +1 253 215 8782 US (Tacoma)



Regular Meeting of the Planning Commission  
March 17, 2026 - 6:30 PM

**a. Call to Order**

While Planning Commissioners and Staff waited for a quorum, Mayor Julia Johnson addressed the Planning Commission. She gave many thanks and much appreciation for their service throughout her tenure, particularly for their hard work through the Periodic Update of the Comprehensive Plan.

Planning Commission Vice Chair, Jessica Jasper, called the meeting to order at (6:39PM).

**b. Pledge of Allegiance**

**c. Roll Call**

Commissioners Present:

- Commissioner Jessica Jasper
- Commissioner Pat Huggins
- Commissioner Matthew Desvoigne
- Commissioner Madison Bowman

Staff Present:

- Planner Nicole McGowan
- Assistant Planner Ashton Sandoval Oaks
- Community Development Director Tom Glover
- Permit Technician Nicole Pfluger

**d. Consent Agenda**

1. Minutes from February 17, 2026 Planning Commission Meeting

Minutes from February 17, 2026, Planning Commission Meeting approved as written.

**e. General Public Comments**

Please keep comments to three minutes or less. Because state law prohibits the use of city facilities for the purpose of supporting or opposing a campaign or ballot proposition, we respectfully request that public comment not make reference to such matters.

Written comments will be accepted by letter or via email at [nmcgowan@sedro-woolley.gov](mailto:nmcgowan@sedro-woolley.gov) Attn: 'Public Comment.' until 4:30pm the day before the meeting.

General Public Comments opened at (6:40PM).

- No online participants
- No participants were in attendance
- Staff did not receive any written comments

General Public Comments closed at (6:41PM).

**f. Public Hearing(s)**

1. Proposed Amendments to Title 15 and Chapters 12.32 and 17.100 SWMC to Add Address and Street Name Standards

Assistant Planner, Ashton Sandoval Oaks, covered the changes made to the Proposed Amendments to Title 15 and Chapters 12.32 and 17.100 SWMC to Add Address and Street Name Standards. He covered proposed fees to be included in the Master Fee Schedule, as well as the process the Finance Department goes through to make these changes. Other changes included revising code verbiage to be consistent throughout, such as references to GPS-based navigation systems & latitude and longitude for new and changed addresses.

Public Hearing opened at (6:45PM).

- No online participants
- No participants were in attendance
- Staff did not receive any written comments

Public Hearing closed at (6:46PM).

Planning Commissioners did not have any comments. The motion to recommend approval of the proposed amendments to Title 15 and Chapters 12.32 and 17.100 SWMC to the City Council was passed (4-0).

**g. Unfinished Business**

None.

**h. New Business**

None.

**i. Adjournment**

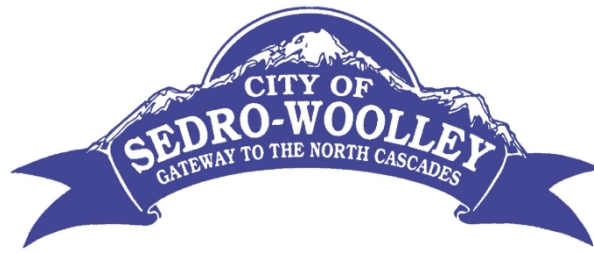
Time (6:51PM).

ATTEST:

\_\_\_\_\_  
Planning Commission Chair

APPROVED:

\_\_\_\_\_  
Planning Commission Secretary



## Planning Commission Agenda Item

---

**Agenda Item No.:** h.1.

**Date:** May 19, 2026

**From:** Thomas Glover, Community Development Director

**Subject:** Updates to Chapter 17.65 SWMC *Regulations for Critical Areas* - Gap Analysis Discussion

---

### **RECOMMENDED ACTION:**

Provide feedback on the critical areas ordinance gap analysis prepared by Facet NW, with particular attention to wetland buffer width options. Identify preferred framework for updating Chapter 17.65 SWMC.

### **BACKGROUND/SUMMARY INFORMATION:**

The City has partnered with Facet NW, the same consulting team that assisted with the Comprehensive Plan Periodic Update, to conduct a gap analysis of the City's existing critical areas regulations under Chapter 17.65 SWMC. This analysis identifies areas where current regulations may not align with updated BAS and provides recommendations for regulatory amendments.

The gap analysis is intended to serve as a roadmap for updating the City's critical areas ordinance to improve clarity, regulatory consistency, and environmental protection while maintaining practical implementation standards.

A primary policy consideration within the update relates to wetland buffer requirements. Facet NW has outlined several options for buffer width revisions based on current Washington State Department of Ecology guidance. Staff recommend adoption of Ecology Buffer Option 1 . Under this approach, wetland buffer widths are determined directly by wetland category and habitat score, ensuring buffer protections are proportionate to the ecological value of each wetland. This option is recommended because it:

- Aligns well with Best Available Science and Ecology guidance;
- Provides meaningful environmental protection based on wetland function and value;
- Allows reasonable flexibility when applicants incorporate impact minimization measures and designate habitat corridors;
- Represents the least significant increase in buffer widths among options;
- Is straightforward for staff administration and implementation, reducing the need for extensive third-party environmental review compared other more complex buffer models.

Planning Commission feedback on the gap analysis recommendations, particularly regarding wetland buffer strategies, will help guide future code amendments and ordinance development.

**FISCAL IMPACT, IF APPROPRIATE:**

Facet NW is currently under contract to perform the critical areas ordinance gap analysis and support the update process. Costs associated with this are reimburseable by the WA State Department of Commerce Grant.

**ATTACHMENTS:**

1. CAO Gap Analysis - 5.14.2026

Critical Areas Ordinance Update

# Gap Analysis

**CITY OF SEDRO-WOOLLEY**



**MAY 2026**

*Prepared for:*

City of Sedro-Woolley  
325 Metcalf Street  
Sedro-Woolley, WA 98284

Facet Number: 2401.0458.00

Prepared by:

**Alexandra Plumb**  
Senior Planner

**Douglas Yormick**  
Environmental Planner

**Rachel Henden**  
Environmental Planner

**Dawn Spilsbury**  
Ecologist/GIS Analyst



Seattle Office  
9706 4<sup>th</sup> Ave NE,  
Suite 300  
Seattle, WA 98115

206.523.0024

The information contained in this report is based on the application of technical guidelines currently accepted as the best available science. All discussions, conclusions and recommendations reflect the best professional judgment of the author(s) and are based upon information available at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local, state, and federal regulatory authorities. No other warranty, expressed or implied, is made.

# Acronyms and Abbreviations

BAS	Best Available Science
BMP	Best Management Practices
CAO	Critical Areas Ordinance
CARA	Critical Aquifer Recharge Area
Commerce	Washington State Department of Commerce
Corps	U.S. Army Corps of Engineers
CMZ	Channel Migration Zone
DNR	Washington State Department of Natural Resources
DOH	Washington State Department of Health
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FFA	Frequently Flooded Area
FIRM	Flood Insurance Rate Map
FWHCA	Fish and Wildlife Habitat Conservation Area
GIS	Geographic Information System
GMA	Growth Management Act
LID	Low Impact Development
OHWM	Ordinary High Water Mark
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
PHS	Priority Habitats and Species
RMZ	Riparian Management Zone
RCW	Revised Code of Washington
SPTH	Site Potential Tree Height
SWMC	Sedro-Woolley Municipal Code
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WHPA	Wellhead Protection Areas

# Table of Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. General Provisions (Article 1).....</b>	<b>1</b>
2.1 Introduction (SWMC 17.65.010).....	7
2.2 Application, purpose. (SWMC 17.65.020).....	7
2.3 Definitions (SWMC 17.65.030) .....	8
2.4 Applicability, jurisdiction and coordination (SWMC 17.65.040) .....	9
2.5 Resource information and maps (SWMC 17.65.050).....	9
2.6 General requirements and authorizations required (SWMC 17.65.060) .....	9
2.7 Application submittal requirements (SWMC 17.65.070).....	10
2.8 Administration (SWMC 17.65.080) .....	10
2.9 Critical areas checklist, site assessment and conditions of approval (SWMC 17.65.090).....	10
2.10 Application of standards (SWMC 17.65.100) .....	10
2.11 General construction and maintenance standards (SWMC 17.65.120) .....	11
2.12 Reasonable use exception (SWMC 17.65.150) .....	11
2.13 Critical area and buffer mitigation requirements—General provisions (SWMC 17.65.160) .....	12
2.14 Protected critical area (PCA) requirements (SWMC 17.65.170).....	12
<b>3. Wetlands (Article 2) .....</b>	<b>13</b>
3.1 Wetlands designations (SWMC 17.65.200) .....	14
3.2 Wetlands initial project review (SWMC 17.65.210).....	14
3.3 Wetlands site assessment requirements (SWMC 17.65.220) .....	15
3.4 Wetland mitigation standards (SWMC 17.65.240).....	15
3.4.1 Section organization .....	15
3.4.2 Wetland buffer widths.....	15
3.4.3 Buffer standards and alterations.....	21
3.4.4 Wetland mitigation plan requirements.....	21
<b>4. Aquifer Recharge Areas (Article 3).....</b>	<b>21</b>
4.1 Aquifer recharge areas (SWMC 17.65.300) .....	24
4.2 Aquifer recharge area designations (SWMC 17.65.310) .....	25
4.3 Aquifer recharge applicability and prohibited activities (SWMC 17.65.320) .....	25
4.4 Aquifer recharge initial project review (SWMC 17.65.330) .....	26
4.5 Aquifer recharge site assessment report (SWMC 17.65.340) .....	27
4.6 Aquifer recharge public notice and review (SWMC 17.65.360).....	27
<b>5. Geologically Hazardous Areas (Article 4) .....</b>	<b>27</b>
5.1 Geologically hazardous area designations (SWMC 17.65.400) .....	28
5.2 Geologically hazardous area initial project review (SWMC 17.65.410) .....	28

5.3 Geologically hazardous area site assessment requirements (SWMC 17.65.420).....	29
5.4 Geologically hazardous area mitigation standards (SWMC 17.65.430).....	29
<b>6. Fish and Wildlife Habitat Conservation Areas (Article 5) .....</b>	<b>29</b>
6.1 Fish and wildlife habitat conservation area designations (SWMC 17.65.500) .....	32
6.2 Fish and wildlife habitat conservation areas initial project review (SWMC 17.65.510) .....	32
6.3 Fish and wildlife habitat conservation area site assessment requirements (SWMC 17.65.520) .....	32
6.4 Fish and wildlife habitat conservation areas standards (SWMC 17.65.530) .....	32
<b>7. Flood Hazard Area (Article 6).....</b>	<b>38</b>
7.1 Standards for flood hazard areas (SWMC 17.65.600).....	39
<b>8. Compliance and Enforcement (Article 7) .....</b>	<b>39</b>
8.1 State Environmental Policy Act (SWMC 17.65.740) .....	40
8.2 Liability disclaimer—Flood hazard areas (SWMC 17.65.750) .....	40
<b>9. References.....</b>	<b>41</b>

## Tables

Table 1. General Provisions review summary.....	2
Table 2. Wetlands review summary.....	13
Table 3. Current wetland buffers from SWMC 17.65.240(B).....	15
Table 4. Ecology Buffer Option 1 .....	16
Table 5. Impact minimization measures .....	17
Table 6. Ecology Buffer Option 1 (without minimization measures and a habitat corridor is not provided) .....	18
Table 7. Ecology Buffer Option 2.....	19
Table 8. Land Use Type Impacts.....	19
Table 9. Ecology Buffer Option 3.....	20
Table 10. Aquifer Recharge Area review summary.....	22
Table 11. Geologically Hazardous Areas review summary.....	28
Table 12. Fish and Wildlife Habitat Conservation Areas review summary. ....	30
Table 13. Flood Hazard Areas review summary.....	39
Table 14. Compliance and enforcement review summary.....	39

## Figures

<b>Figure 1.</b> Chart of the length of stream in each SPTH RMZ width class in Sedro-Woolley using data from the WDFW SPTH <sub>200</sub> Mapping Tool. ....	34
---	----

**Figure 2.** Stream Length for each Stream Type in SPTH<sub>200</sub> RMZ Width Class. .... 34

**Figure 3.** Map of Buffer and RMZ distribution in Sedro-Woolley..... 35

**Figure 4.** Map of Buffers and RMZs in the North Area of Sedro-Woolley. .... 35

**Figure 5.** The “FEMAT Curves”: a conceptual model of the contributions of key riparian ecosystem functions which influence aquatic ecosystems by distance and cumulative effectiveness. Tree height refers to the average relative height of the site potential tree height (reproduced from FEMAT 1993)..... 37

## 1. INTRODUCTION

With passage of the Growth Management Act (GMA), local jurisdictions throughout Washington State, including City of Sedro-Woolley (City), were required to develop policies and regulations to designate and protect critical areas. Critical areas are defined in the GMA and the Revised Code of Washington (RCW) 36.70A.030(11) to include wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas. The GMA requires local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations.

According to the Washington Administrative Code (WAC) 365-195-915, critical area regulations are required to incorporate best available science (BAS), and any deviations from science-based recommendations must be identified, assessed, and explained. In addition, jurisdictions must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

This gap analysis report is a review of the current critical areas regulations under Sedro-Woolley Municipal Code (SWMC) Chapter 17.65 with an evaluation of the gaps in consistency between the existing regulations and BAS or state law. The Technical Memorandum – Best Available Science (BAS) Review (Facet 2025b), which incorporates by reference the Skagit County Critical Areas Ordinance (CAO) BAS review (Facet 2025a), has informed the recommendations of the gap analysis included in the tables below. This analysis also includes recommendations for improvements to general aspects of the Sedro-Woolley CAO, such as clarity, consistency, and ease of use. The primary intention of this gap analysis is to guide the update of the City’s critical areas policies and regulations.

The following sections provide information for specific critical areas. Each section contains a summary table followed by a detailed analysis of the existing code, potential gaps, and recommendations.

## 2. GENERAL PROVISIONS (ARTICLE 1)

This section addresses code applicable to Article 1: General Provisions as described in SWMC 17.65.010-17.65.195. A summary of recommended updates is provided in Table 1.

Table 1. General Provisions review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.010	Introduction.	<ol style="list-style-type: none"> <li>1. Specify the use of best available science (BAS) in development of critical areas regulations.</li> <li>2. Recommend revising key terms.</li> <li>3. Use the term "critical areas report" rather than "site assessment" to be consistent with the terminology common to the region.</li> <li>4. Consider deleting the section, Critical Area Maps, as it is repetitive with SWMC 17.65.050, Resource information and maps.</li> </ol>	<ol style="list-style-type: none"> <li>1. Commerce CAO Checklist, Overall Requirements</li> <li>2. Consistency with state convention and terminology</li> <li>3. Clarity</li> <li>4. Clarity</li> </ol>
17.65.020	Application, purpose.	<ol style="list-style-type: none"> <li>1. Clarify that this chapter applies to all development.</li> <li>2. Recommend strengthening the purpose statement with inclusion of restoration and protection of riparian habitats.</li> <li>3. Consider removing riparian corridors from Subsection 17.65.020(C)(1), Wetlands and Riparian Corridors.</li> <li>4. Consider revising terminology from "riparian corridor" to "riparian buffer area."</li> <li>5. Reference Chapter 17.66 SWMC, Flood Damage Prevention.</li> <li>6. Add a provision noting in the case of conflicting codes, the regulation that provides the greater protection to critical areas shall apply.</li> <li>7. Relocate Subsection 17.65.020(D), Exemptions from Critical Areas Review Requirements, to revised Section 17.65.100, Exemptions, and consider revising/expanding.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. WDFW guidance</li> <li>3. Clarity</li> <li>4. WDFW guidance</li> <li>5. Clarity</li> <li>6. WDFW guidance</li> <li>7. Consolidate list of exemptions, BAS</li> </ol>

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.025	Definitions.	<ol style="list-style-type: none"> <li>1. Ensure consistency of definitions with the WAC, as applicable.</li> <li>2. Consider adding a definition of channel migration zone.</li> <li>3. Consider revising the definition of compensatory mitigation and add definitions of each type of compensatory mitigation.</li> <li>4. Consider revising the definition of development to align with Ecology Publication No. 22-06-014.</li> <li>5. Consider revising the definition of Fish and Wildlife Habitat Conservation Area to align with WAC 365-190-030(6).</li> <li>6. Consider including a definition of functionally disconnected buffer.</li> <li>7. Consider including a definition of hazard tree.</li> <li>8. Consider revising the definition of in-lieu of fee.</li> <li>9. Consider including a definition of low impact development (LID).</li> <li>10. Consider using the term "qualified professional" instead of "qualified expert" and consider including a sub-definition for each specific area of expertise.</li> <li>11. Consider adding a definition of a riparian buffer area.</li> <li>12. Consider updating definition of structure consistent with WAC 173-27-030.</li> </ol>	<ol style="list-style-type: none"> <li>1. State law</li> <li>2. WDFW guidance</li> <li>3. Ecology Publication No. 22-06-014</li> <li>4. Ecology Publication No. 22-06-014</li> <li>5. WAC 365-190-030(6) and Commerce CAO Checklist</li> <li>6. Ecology Publication No. 22-06-014</li> <li>7. WDFW guidance</li> <li>8. Ecology Publication No. 22-06-014</li> <li>9. Ecology Publication No. 22-06-014</li> <li>10. Ecology Publication No. 22-06-014 and consistency with state practices</li> <li>11. WDFW guidance</li> <li>12. WAC 173-27-030</li> </ol>
17.65.030	Authority.	No comments or recommendations	N/A

<b>Code Section</b>	<b>Title</b>	<b>Review Comment and Recommendations</b>	<b>Reason for Recommendation</b>
17.65.040	Applicability, jurisdiction and coordination.	<ol style="list-style-type: none"> <li>1. Specify the responsibility of applicants and landowners to comply with applicable local, state, and federal regulations.</li> <li>2. Revise references to local regulations that are specific to Sedro-Woolley.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. Clarity</li> </ol>
17.65.050	Resource information and maps.	Reference the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) maps.	Clarity
17.65.060	General requirements and authorizations required.	<ol style="list-style-type: none"> <li>1. Specify which actions the standards of the chapter apply to (relocated language from deleted SWMC 17.65.100, Application of standards).</li> <li>2. Reference requirement to use mitigation sequencing under SWMC 17.65.160(C), Mitigation Sequence, for proposed alterations that could adversely affect a critical area or its standard buffer functions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. BAS</li> </ol>
17.65.065	Public notice and records.	No comments or recommendations	N/A
17.65.070	Application submittal requirements.	Consider removing the requirement for site plans to be prepared by a licensed surveyor.	Clarity
17.65.080	Administration.	<ol style="list-style-type: none"> <li>1. Provide crosswalk to Chapter 17.66, Flood Damage Prevention.</li> <li>2. Revise distance threshold for a critical areas review from 200 to 300 feet to align with the proposed buffer width increases.</li> <li>3. Consider implementing a monitoring and adaptive management program.</li> </ol>	<ol style="list-style-type: none"> <li>1. Consistency</li> <li>2. BAS</li> <li>3. Commerce CAO Checklist, Good Ideas Section, and WDFW guidance</li> </ol>

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.090	Critical areas checklist, site assessment and conditions of approval.	<p>1. Revise section title to “Critical areas checklist, critical areas report, and conditions of approval.”</p> <p>2. Explicitly state required assessment of direct and indirect impacts to be included in all critical areas reports, along with the critical area inventory and, where applicable, a proposed mitigation plan.</p> <p>3. Reference requirement to use mitigation sequencing under SWMC 17.65.160(C), Mitigation Sequence, for inclusion in mitigation plans.</p>	<p>1. Consistency</p> <p>2. BAS</p> <p>3. BAS</p>
17.65.100	Application of standards.	<p>1. Revise title to exemptions and revise as necessary.</p> <p>2. Subsection 17.65.100(N) regarding development in the floodplain should be relocated to SWMC 17.65.600, Standards for frequently flooded areas.</p>	<p>1. Consolidate exemptions list</p> <p>2. Clarity</p>
17.65.120	General construction and maintenance standards.	<p>1. Clarify that a vegetation and revegetation report may be required when development is proposed adjacent to streams or riparian buffer areas, as well as where erosion potential is ‘severe’.</p> <p>2. Clarify that applicants must first consider low impact development (LID) techniques.</p>	<p>1. BAS</p> <p>2. BAS, WDFW recommendation</p>

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.150	Reasonable use exception.	1. Specify the limitation of the use of a reasonable use exception to residential development. 2. Specify mitigation sequencing as a requirement for approval. 3. Update appeal to appropriate procedure. 4. Consider including a public agency and utilities exception.	1. Clarity 2. Commerce CAO Checklist, Reasonable Use Exceptions 3. Consistency 4. Code application
17.65.160	Critical area and buffer mitigation requirements—General provisions.	1. Review which mitigation types are allowed. 2. Review and update mitigation sequencing requirements.	1. BAS and clarity 2. BAS
17.65.170	Protected critical area (PCA) requirements.	1. Recommend removing accuracy language. 2. Specify spacing intervals of permanent buffer edge markers.	1. Implementation 2. Implementation
17.65.180	Incentives.	No comments or recommendations	N/A
17.65.190	General natural resource preservation requirements.	No comments or recommendations	N/A
17.65.195	Natural resource area covenants, tracts, notices and dedications.	No comments or recommendations	N/A

## 2.1 Introduction (SWMC 17.65.010)

It is recommended that the chapter explicitly references the use of best available science (BAS) in the development and implementation of critical areas regulations, including citation of the applicable Washington Administrative Code (WAC) provisions under WAC 365-195-900 through 365-195-925.

In addition, several terminology revisions are advised to improve clarity and ensure uniform application of standards throughout the chapter. These include removing hyphens from the term “no net loss”; consistently using the full term “Critical Aquifer Recharge Area” rather than “aquifer recharge area”; applying the term “frequently flooded areas (FFA)” instead of “flood hazard areas”; using “fish and wildlife habitat conservation areas (FWHCAs)” rather than “habitat conservation area” or “HCA”; and “geologically hazardous areas” in place of “geologic hazards.” It is further recommended that the term “critical areas report” be used instead of “site assessment,” as it aligns with regional terminology and more accurately reflects the scope of the required documentation.

Finally, for organizational clarity and to avoid redundancy, the section titled Critical Area Maps should be considered for deletion, as its content duplicates the provisions already contained in SWMC 17.65.050, Resource Information and Maps.

## 2.2 Application, purpose. (SWMC 17.65.020)

It is recommended that the chapter be clarified to state explicitly that its provisions apply to all development activities, ensuring consistent and predictable application of the critical areas regulations throughout Sedro-Woolley. Strengthening the purpose statement to include the restoration and protection of riparian habitats would further reinforce the City’s commitment to safeguarding ecological functions and supporting long-term resource resilience and alignment with best available science.

For consistency with state-recognized critical area designations, the City should also consider removing riparian corridors from Subsection 17.65.020(C)(1), *Wetlands and Riparian Corridors*.

To utilize the terminology currently used in Subsection 17.65.530(A), it is recommended to shift “riparian corridor” terminology to “riparian buffer area” and should then incorporate under Subsection 17.65.020(C)(3), *Fish and Wildlife Habitat Conservation Areas (FWHCAs)*.

Referencing Chapter 17.66 SWMC, Flood Damage Prevention, within the description of Subsection 17.65.020(C)(4), *Frequently Flooded Areas*, would strengthen internal code consistency and assist users in navigating related standards.

This section should also include a provision stating that, in the event of conflicting regulations, the standard of providing greater protection to critical areas shall prevail to align with best available science.

It is recommended that Subsection 17.65.020(D), *Exemptions from Critical Areas Review Requirements*, be relocated to revised Section 17.65.100, *Exemptions*, to improve organization and enhance readability.

As part of this revision, the emergency action exemption should be clarified to specify that required mitigation and/or restoration must be completed in accordance with an approved mitigation plan or other applicable plan developed pursuant to this chapter. The exemption for maintenance and removal of nonnative vegetation should be strengthened by requiring a letter of exemption for proposed removal activities and by adding criteria to guide the removal of invasive or noxious plants. Additionally, the exemptions related to modifications of single-family residences and other uses should be reviewed and potentially consolidated to eliminate redundancy and improve consistency. The exemption for enhancement activities should also be revised to clearly identify when and under what conditions it may apply. Finally, an exemption for hazard tree removal should be added, with a corresponding requirement to obtain a letter of exemption to ensure appropriate mitigation measures are implemented for any removed trees.

## 2.3 Definitions (SWMC 17.65.030)

To improve clarity and alignment with state guidance, it is recommended that the City ensure its definitions remain consistent with applicable Washington Administrative Code (WAC) provisions. Several additions and revisions would strengthen the code's accuracy and usability, including adding definitions for:

- Channel migration zone;
- Functionally disconnected buffer;
- Hazard tree;
- Low impact development (LID); and
- Riparian buffer area.

To align with the existing Sedro-Woolley Public Works Development Standards definition, the following definition of LID could be considered:

*“Low Impact Development (LID)” means a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.*

Revisions are also advised for key existing terms. Revising the term “Aquifer recharge areas, critical” to “critical aquifer recharge areas” and updating the definition consistent with WAC 365-190-030 aligns with state practice. Other proposed revisions include updating the definitions of “compensatory mitigation” and its component types (e.g., creation, enhancement, preservation, and restoration) to reflect the terminology used in Washington Department of Ecology Publication No. 22-06-014, as well as revising the definitions of “development” and “Fish and Wildlife Habitat Conservation Area (FWHCA)” to ensure consistency with Ecology guidance and WAC 365-190-030(6). Clarifying the definition of “in-lieu-of fee” to describe the procedures governing its use as a compensatory mitigation

option would further support consistent application of the code. Revising the definition of “structure” to align with WAC 173-27-030 aligns more closely with state practice.

In addition, it is recommended that the code use the term “qualified professional” instead of “qualified expert” and include subsections detailing qualifications for each relevant field to strengthen the reliability of technical analyses.

## **2.4 Applicability, jurisdiction and coordination (SWMC 17.65.040)**

It is recommended that the code explicitly specifies the responsibility of applicants and landowners to comply with all applicable local, state, and federal regulations to ensure consistent and accountable implementation of critical areas requirements. Additionally, references to local regulations should be revised to accurately cite the City of Sedro-Woolley’s municipal code and standards rather than those of Skagit County.

## **2.5 Resource information and maps (SWMC 17.65.050)**

It is recommended to reference the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) maps to ensure identified PHS are being protected.

## **2.6 General requirements and authorizations required (SWMC 17.65.060)**

It is recommended that the chapter clearly specify which actions and activities are subject to its standards, using the relocated language from the revised SWMC 17.65.100, Application of Standards (see below recommendation to revise title to Exemptions), to ensure applicants and reviewers understand when critical areas requirements apply. This section should also reference the requirement to follow the mitigation sequencing process outlined in SWMC 17.65.160(C) for any proposed alterations that could adversely affect a critical area or its standard buffer functions. Explicitly linking these provisions will help reinforce consistent application of the avoidance, minimization, and mitigation hierarchy and support effective protection of critical area functions.

Under subsection 17.65.060(C), Procedures, it is recommended to relocate the following provisions for clarity:

- Relocate “Conflicts with Other Provisions” to SWMC 17.65.020 and revise.
- Relocate subsections 17.65.060(C)(3) and (4) to SWMC 17.65.740 where the State Environmental Policy Act is discussed.
- Relocate “Other Permits Required” to SWMC 17.65.040 and revise.

## **2.7 Application submittal requirements (SWMC 17.65.070)**

To reduce the burden on the applicant, the requirement for a site plan prepared by a surveyor licensed in the State of Washington should be considered for removal. The City could instead revise this requirement to allow an accurate, to-scale site plan to be prepared by the applicant or the applicable qualified professional.

## **2.8 Administration (SWMC 17.65.080)**

It is recommended to provide a crosswalk to Chapter 17.66, Flood Damage Prevention, for clarity of application and consistency. Additionally, the distance threshold for a critical areas review should be revised from 200 to 300 feet to align with the proposed buffer width increases. Lastly, to align with best available science, the city should consider implementing a monitoring and adaptive management program.

## **2.9 Critical areas checklist, site assessment and conditions of approval (SWMC 17.65.090)**

To align with the recommendations contained within Section 2.1 of this report, it is recommended to revise the section title in SWMC 17.65.090 to "Critical areas checklist, critical areas report, and conditions of approval". Additionally, it is recommended to explicitly state required assessment of direct and indirect impacts to be included in all critical areas reports, along with the critical area inventory and, where applicable, a proposed mitigation plan and reference the requirement to use mitigation sequencing under SWMC 17.65.160(C), Mitigation Sequence, in mitigation plans.

## **2.10 Application of standards (SWMC 17.65.100)**

It is recommended to retitle this section "Exemptions" for clarity. Revise section introduction with language from deleted SWMC 17.65.020(D) and additional clarity.

It is recommended to relocate applicable exemptions from SWMC 17.65.020(D) to this Section 17.65.100 and revise as necessary. The language contained within Subsection 17.65.100(N) regarding development in the floodplain should be relocated to SWMC 17.65.600, Standards for frequently flooded areas, for clarity. As described in Section 2.6 of this report, exemptions could be added to address certain activities including the following suggested language:

*Existing and ongoing agriculture activities, including related development and activities that do not result in an expansion or further expansion into a critical area or its standard buffer.*

*Activities involving artificially created wetlands or artificial watercourses intentionally created from nonwetland sites, including, but not limited to, grass-lined swales, irrigation and drainage ditches, roadside ditches, stormwater detention facilities, and landscape features, except those features that provide critical habitat for anadromous fish and those features that were created as mitigation pursuant to the provisions of this chapter.*

*Removal of hazard trees after issuance of a letter of exemption. Upon issuance of a letter of exemption, removal of hazard trees as defined in SWMC 17.65.025 that has determined have a high probability of falling due to a debilitating disease or a structural defect and potential for significant property damage or personal injury if it falls, provided that it is demonstrated to the satisfaction of the Director that an imminent threat or risk exists or the criteria in SWMC 12.40.080 has been met. Where the existence of a safety hazard cannot be readily determined by the Director, the landowner shall submit a written report from a certified arborist documenting the hazard. Hazard tree removal shall be conducted in a manner that avoids or minimizes adverse impacts on ecosystem functions, to the extent practicable, including avoiding or limiting damage to remaining trees and vegetation within the critical area and its associated buffer. Where feasible, creating wildlife snags is encouraged as an alternative to complete tree removal.*

1. *If a tree is determined to be a hazard based on the criteria above, the subject tree removed from critical areas must be mitigated through one of the following actions:*
  - a. *Replace with appropriate native tree species within the critical area or buffer;*
  - b. *Demonstrate critical area functions will be restored through a mitigation plan. Restoration actions may include invasive plant removal and revegetation with shrub and groundcover plants where on-site tree replacement is determined by a qualified professional to be unsustainable.*

## **2.11 General construction and maintenance standards (SWMC 17.65.120)**

To improve clarity, it is recommended that the code language be updated to specify that a vegetation and revegetation report may be required when development is proposed adjacent to streams or riparian buffer areas, as well as where erosion potential is 'severe'. Additionally, the language should be updated to clarify that applicants must first consider low impact development (LID) techniques before grading the proposed development site.

## **2.12 Reasonable use exception (SWMC 17.65.150)**

To improve implementation, it is recommended to specify the limitation of the use of a reasonable use exception to residential development and specify mitigation sequencing as a requirement for approval. Further, appeals for decisions made by a Hearing Examiner shall be appealed to Superior Court in compliance with Chapter 2.90 SWMC and RCW 36.70C.

To provide flexibility in implementation of the code, it is recommended to add a public agency and utility exception. The following language could be used:

G. *Public Agency and Utility Exception.* A request for a critical area public agency and utility exception may be made if the application of this chapter would prohibit a development proposal by a public agency or public utility.

1. *The public agency and utility exception shall only be granted under the following conditions:*
  - a. *There is no other practical alternative to the proposed development with less impact on the critical areas;*
  - b. *The application of this chapter would unreasonably restrict the ability to provide services to the public;*
  - c. *The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;*
  - d. *The proposal will result in no net loss of critical area functions and values consistent with the best available science; and*
  - e. *The proposal is consistent with other applicable regulations and standards.*
2. *Any authorized alteration of a critical area under this section may be subject to conditions established by the city and shall require mitigation under an approved critical areas report.*
3. *The standards above in Section 17.65.150(D) through (F) apply.*

## **2.13 Critical area and buffer mitigation requirements— General provisions (SWMC 17.65.160)**

In alignment with Ecology Publication No. 22-06-014, it is recommended to review which types of mitigation are allowed, and review and update mitigation sequencing requirements.

## **2.14 Protected critical area (PCA) requirements (SWMC 17.65.170)**

It is recommended to remove accuracy language because it could be exploited to intentionally reduce buffer width. Additionally, the language should be updated to specify spacing intervals of permanent buffer edge markers.

### 3. WETLANDS (ARTICLE 2)

This section addresses code applicable to Article 2: Wetlands as described in SWMC 17.65.200-17.65.240. A summary of recommended updates is provided in Table 2.

Table 2. Wetlands review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.200	Wetlands designations.	<ol style="list-style-type: none"> <li>1. Revise title to "Wetlands designations and rating."</li> <li>2. Provide a reference to "Ecology Publication No. 23-06-009 or as revised" for clarity of which rating system to use.</li> <li>3. Clarify review process for a wetland delineation older than 5 years.</li> </ol>	<ol style="list-style-type: none"> <li>1. Implementation</li> <li>2. BAS</li> <li>3. Ecology Publication No. 22-06-014</li> </ol>
17.65.210	Wetlands initial project review.	<ol style="list-style-type: none"> <li>1. Update threshold for critical area review from 200 to 300 feet.</li> <li>2. Update term for a wetland-specific critical areas report to "wetland report."</li> </ol>	<ol style="list-style-type: none"> <li>1. Ecology Publication No. 22-06-014</li> <li>2. Consistency</li> </ol>
17.65.220	Wetlands site assessment requirements.	<ol style="list-style-type: none"> <li>1. Revise section title to "Wetland report requirements."</li> <li>2. Review and update reporting requirements.</li> <li>3. Suggest cross-referencing the mitigation requirements under subsections (B)-(G) of SWMC 17.65.160, Critical area and buffer mitigation requirements-General provisions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Consistency</li> <li>2. Ecology Publication No. 22-06-014</li> <li>3. Clarity</li> </ol>
17.65.230	Alteration of wetlands.	No comments or recommendations	N/A

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.240	Wetland mitigation standards.	<ol style="list-style-type: none"> <li>1. Relocate mitigation standards and requirements to new subsection and revise</li> <li>2. Review buffer width tables for consistency with Ecology’s model ordinance.</li> <li>3. Provide additional details on standard buffer condition requirements.</li> <li>4. Review buffer increase criteria and update for consistency with Ecology’s model ordinance.</li> <li>5. Review buffer decrease criteria and revise to specify approval criteria.</li> <li>6. Review buffer averaging criteria and update for consistency with Ecology’s model ordinance.</li> <li>7. Include a new subsection for functionally disconnected buffers.</li> <li>8. Review allowed uses in wetlands and update for consistency with Ecology’s model ordinance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Ecology Publication No. 22-06-014</li> <li>2. Ecology Publication No. 22-06-014</li> <li>3. Ecology Publication No. 22-06-014</li> <li>4. Ecology Publication No. 22-06-014</li> <li>5. Implementation</li> <li>6. Ecology Publication No. 22-06-014</li> <li>7. Ecology Publication No. 22-06-014</li> <li>8. Ecology Publication No. 22-06-014</li> </ol>

### 3.1 Wetlands designations (SWMC 17.65.200)

To improve clarity, it is recommended to revise the title of this subsection to “Wetlands designations and rating.” Additionally, this subsection should be revised to provide a reference to “Ecology Publication No. 23-06-009 or as revised” for clarity of which rating system to use and include language for review process when a wetland delineation is older than 5 years.

### 3.2 Wetlands initial project review (SWMC 17.65.210)

For consistency with the proposed revisions to the wetland buffer width table, it is recommended to update threshold for critical area review from 200 to 300 feet to be inclusive of the largest possible

buffer width. Additionally, for consistency with common terminology, it is recommended to refer to the wetland-specific site assessment as a “wetland report.”

### **3.3 Wetlands site assessment requirements (SWMC 17.65.220)**

For consistency with the proposed language change above, it is recommended to revise the subsection title to “Wetland report requirements.” To align with best available science under the Washington State Department of Ecology *Wetland Guidance for Critical Areas Ordinance Updates* (Ecology Publication 22-06-014), it is recommended to review and update wetland reporting requirements. Further, it is suggested to cross-reference the mitigation requirements under SWMC 17.65.160, Critical area and buffer mitigation requirements-General provisions.

### **3.4 Wetland mitigation standards (SWMC 17.65.240)**

#### **3.4.1 Section organization**

To improve implementation, it is recommended to relocate the mitigation standards and requirements to a new Subsection 17.65.250, Wetland mitigation standards, and revise title of Section 17.65.240 to “Wetland buffer standards.”

#### **3.4.2 Wetland buffer widths**

For consistency with best available science, the existing buffer width tables should be reviewed for consistency with Ecology’s latest wetland guidance for CAO updates, Ecology Publication No. 22-06-014 finalized in October 2022, which provides three BAS based options for wetland buffer tables. Table 3 below shows the code’s current buffer widths:

**Table 3. Current wetland buffers from SWMC 17.65.240(B)**

Category I	150
Category II	110
Category III	50
Category IV	25

Ecology’s preferred option, Option 1, shown in Table 4 below, provides the most flexibility and site-specific buffers. Buffer widths are based on the wetland category, the level of impacts from adjacent land uses, and the functions or special characteristics of the wetland. Under Option 1, there are two different variations, the reduced variation only allowable through provision of a habitat corridor and implementation of minimization measures to reduce the level of impact from the adjacent land use.

Use of the lowest buffer widths under Option 1 requires the implementation of minimization measures shown in Table 5. Such measures are not currently in the code. Table 5 is not a complete list of measures, nor is every measure required, but every effort should be made to implement as many

measures as applicable and practicable, as determined by City staff. If an applicant chooses not to apply the applicable minimization measures, then an approximately 33% increase in the width of all buffers is required, see Table 6.

**Table 4. Ecology Buffer Option 1** (wetland buffer width requirements, in feet, if Table 5 is implemented and a habitat corridor is provided)

<b>Category of Wetland</b>	<b>Habitat Score 3-5 points (corridor not required)</b>	<b>Habitat Score 6-7 points</b>	<b>Habitat Score 8-9 points</b>	<b>Buffer width based on special characteristics</b>
<b>Category I or II:</b> Based on rating of functions (and not listed below)	75	110	225	NA
<b>Category I:</b> Bogs and Wetlands of High Conservation Value	NA	NA	225	190
<b>Category I:</b> Interdunal	NA	NA	225	NA
<b>Category I:</b> Forested	75	110	225	NA
<b>Category I:</b> Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
<b>Category II:</b> Interdunal	NA	NA	NA	110
<b>Category II:</b> Estuarine and wetlands in coastal lagoons	NA	NA	NA	110
<b>Category III:</b> All types except interdunal	60	110	225	NA
<b>Category III:</b> Interdunal	NA	NA	NA	60
<b>Category IV:</b> All types	40	40	40	NA

Table 5. Impact minimization measures

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Lights	<ul style="list-style-type: none"> <li>• Parking lots</li> <li>• Commercial/industrial</li> <li>• Residential</li> <li>• Recreation (e.g., athletic fields)</li> <li>• Agricultural buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Direct lights away from wetland</li> <li>• Only use lighting where necessary for public safety and keep lights off when not needed</li> <li>• Use motion-activated lights</li> <li>• Use full cut-off filters to cover light bulbs and direct light only where needed</li> <li>• Limit use of blue-white colored lights in favor of red-amber hues</li> <li>• Use lower-intensity LED lighting</li> <li>• Dim light to the lowest acceptable intensity</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Commercial</li> <li>• Industrial</li> <li>• Recreation (e.g., athletic fields, bleachers, etc.)</li> <li>• residential</li> <li>• Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Locate activity that generates noise away from wetland</li> <li>• Construct a fence to reduce noise impacts on adjacent wetland and buffer</li> <li>• Plant a strip of dense shrub vegetation adjacent to wetland buffer</li> </ul>
Toxic runoff	<ul style="list-style-type: none"> <li>• Parking lots</li> <li>• Roads</li> <li>• Commercial/industrial</li> <li>• Residential areas</li> <li>• Application of pesticides</li> <li>• Landscaping</li> <li>• Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</li> <li>• Establish covenants limiting use of pesticides within 150 ft. of wetland</li> <li>• Apply integrated pest management (These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.)</li> </ul>
Stormwater runoff	<ul style="list-style-type: none"> <li>• Parking lots</li> <li>• Roads</li> <li>• Residential areas</li> <li>• Commercial/industrial</li> <li>• Recreation</li> <li>• Landscaping/lawns</li> <li>• Other impermeable surfaces, compacted soil, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Retrofit stormwater detention and treatment for roads and existing adjacent development</li> <li>• Prevent channelized or sheet flow from lawns that directly enters the buffer</li> <li>• Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns</li> </ul>

Examples of disturbance	Activities and uses that cause disturbances	Examples of measures to minimize impacts
Pets and human disturbance	<ul style="list-style-type: none"> <li>Residential areas</li> <li>Recreation</li> </ul>	<ul style="list-style-type: none"> <li>Use privacy fencing</li> <li>Plant dense native vegetation to delineate buffer edge and to discourage disturbance</li> <li>Place wetland and its buffer in a separate tract</li> <li>Place signs around the wetland buffer every 50-200 ft., and for subdivisions place signs at the back of each residential lot</li> <li>When platting new subdivisions, locate greenbelts, stormwater facilities, and other lower-intensity uses adjacent to wetland buffers</li> </ul>
Dust	<ul style="list-style-type: none"> <li>Tilled fields</li> <li>Roads</li> </ul>	<ul style="list-style-type: none"> <li>Use best management practices to control dust</li> </ul>

Table 6. Ecology Buffer Option 1 (without minimization measures and a habitat corridor is not provided)(wetland buffer width requirements, in feet)

Category of Wetland	Habitat Score 3-5 points (corridor not required)	Habitat Score 6-7 points	Habitat Score 8-9 points	Buffer width based on special characteristics
<b>Category I or II:</b> Based on rating of functions (and not listed below)	100	150	300	NA
<b>Category I:</b> Bogs and Wetlands of High Conservation Value	NA	NA	300	250
<b>Category I:</b> Interdunal	NA	NA	300	NA
<b>Category I:</b> Forested	100	150	300	NA
<b>Category I:</b> Estuarine and wetlands in coastal lagoons	NA	NA	NA	200
<b>Category II:</b> Interdunal	NA	NA	NA	150

Category of Wetland	Habitat Score 3-5 points (corridor not required)	Habitat Score 6-7 points	Habitat Score 8-9 points	Buffer width based on special characteristics
<b>Category II:</b> Estuarine and wetlands in coastal lagoons	NA	NA	NA	150
<b>Category III:</b> All types except interdunal	80	150	300	NA
<b>Category III:</b> Interdunal	NA	NA	NA	80
<b>Category IV</b>	NA	NA	NA	50

Ecology Buffer Option 2, shown in Table 7 below, is based on category and the level of impact from the adjacent proposed or existing land use. This option necessitates inclusion of a table with levels of impacts from proposed land use types (Table 8).

Table 7. Ecology Buffer Option 2

Wetland Category	Land Use Impact		
	Low	Moderate	High
<b>I</b>	150 ft	225 ft	300 ft
<b>II</b>	150 ft	225 ft	300 ft
<b>III</b>	75 ft	110 ft	150 ft
<b>IV</b>	25 ft	40 ft	50 ft

Table 8. Land Use Type Impacts

Level of impact from proposed land use	Type of land use
High	<ul style="list-style-type: none"> <li>• Commercial</li> <li>• Urban</li> <li>• Industrial</li> <li>• Institutional</li> <li>• Mixed-use developments</li> <li>• Residential (more than 1 unit/acre)</li> <li>• Roads: federal and state highways, including on-ramps and exits, state routes, and other roads associated with high-impact land uses</li> <li>• Railroads</li> </ul>

	<ul style="list-style-type: none"> <li>• Agriculture with high-intensity activities (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual tilling, raising and maintaining animals, etc.)</li> <li>• Open/recreational space with high-intensity uses (golf courses, ball fields, etc.)</li> <li>• Solar farms (utility scale)</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>• Residential (1 unit/acre or less)</li> <li>• Roads: Forest Service roads and roads associated with moderate impact land uses</li> <li>• Open/recreational space with moderate-intensity uses (parks with paved trails or playgrounds, biking, jogging, etc.)</li> <li>• Agriculture with moderate-intensity uses (orchards, hay fields, light or rotational grazing, etc.)</li> <li>• Utility corridor or right-of-way used by one or more utilities and including access/maintenance road</li> <li>• Wind farm</li> </ul>
Low	<ul style="list-style-type: none"> <li>• Natural resource lands (forestry/silviculture—cutting of trees only, not land clearing and removing stumps)</li> <li>• Open/recreational space with low-intensity uses (unpaved trails, hiking, birdwatching, etc.)</li> <li>• Utility corridor without a maintenance road and little or no vegetation management</li> <li>• Cell tower</li> </ul>

Finally, Ecology Buffer Option 3, shown in Table 9, is based solely on the category of wetland. It is similar to the code’s existing buffer system.

**Table 9. Ecology Buffer Option 3**

<b>Wetland Category</b>	<b>Buffer</b>
I	300 ft
II	300 ft
III	150 ft
IV	50 ft

All three options require an increase in the standard buffer widths based on Ecology’s moderate risk approach as determined through BAS. Option 3 most closely aligns with the City’s current implementation practices. Option 2 establishes buffer widths similar to those currently regulated for low-impact uses while providing additional flexibility to adjust buffers. Ecology’s Option 1 operates under the assumption that most proposed development will be high or moderate impact (Ecology Publication No. 22-06-014).

We also recommend proving table numbers for ease of reference (e.g., Table 17.65.240-1).

### 3.4.3 Buffer standards and alterations

Additional details should also be provided for standard buffer condition requirements. BAS buffer recommendations are based on the assumption that the buffer is well vegetated with native species appropriate to the ecoregion. This is not currently stated in the Code. 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. The following language could be added to ensure a buffer condition that is adequate to protect the wetland resource:

*The buffer widths in Table 17.65.240-1 of this section assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer must either be planted to create the appropriate native plant community or be widened to ensure that the buffer provides adequate functions to protect the wetland;*

In alignment with Ecology's guidance, the criteria for wetland buffer increases, decreases, and averaging should be reviewed and updated as needed. To address existing uses within wetland buffers, it is recommended to include a new subsection for functionally disconnected buffers. The 'allowed uses in wetlands' should also be reviewed and updated for consistency with Ecology's model ordinance.

### 3.4.4 Wetland mitigation plan requirements

In the new subsection SWMC 17.65.250, the mitigation plan requirements should be updated for consistency with Ecology Publication No. 22-06-014, including updating the subsection on compensatory mitigation, revising the preferred order of compensatory mitigation approaches consistent with Ecology Publication No. 21-06-003 and incorporating a new subsection to describe criteria and standards for the compensatory mitigation approach of "wetland preservation." To give regulators and applicants a functions-based alternative to establish mitigation ratios, the City could consider including the credit/debit method as a mitigation approach.

For ease of implementation, it is recommended to combine all mitigation ratios into one table, consistent with the standards in Ecology Publication No. 22-06-014.

## 4. AQUIFER RECHARGE AREAS (ARTICLE 3)

This section addresses code applicable to Article 3: Aquifer Recharge Areas as described in SWMC 17.65.300-17.65.360. A summary of recommended updates is provided in Table 10.

Table 10. Aquifer Recharge Area review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.300	Aquifer recharge areas.	<ol style="list-style-type: none"> <li>1. Update terminology to “Critical Aquifer Recharge Area” throughout section.</li> <li>2. Add intent language to identify groundwater resources at risk and activities and uses that impact groundwater quality.</li> <li>3. Consider adding protection measures to reinforce groundwater quality and quantity protection.</li> <li>4. Consider changing “regulation” to “Chapter”.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. BAS</li> <li>3. BAS</li> <li>4. Clarity/ Consistency</li> </ol>
17.65.310	Aquifer recharge area designations.	<ol style="list-style-type: none"> <li>1. Consider adding reference to the City’s critical area map for identifying CARAs</li> <li>2. Consider listing the criteria for CARA designations using WAC 365-190-100(4)(b) as a guide.</li> <li>3. Remove reference to saltwater intrusion, as it is not applicable to Sedro-Woolley’s hydrogeologic setting.</li> <li>4. Consider adding reference the Washington State Department of Health (DOH) Source Water Assessment Program (SWAP) map for wellhead protection.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. Clarity/BAS</li> <li>3. Unnecessary due to location</li> <li>4. Clarity/BAS</li> </ol>

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.320	Aquifer recharge applicability and prohibited activities.	<ol style="list-style-type: none"> <li>1. Revise section title to <i>“Critical Aquifer Recharge Areas Performance Standards – General Requirements”</i>.</li> <li>2. Consider adding impact avoidance and minimization standards</li> <li>3. Consider adding Best Management Practices (BMP) to reduce the risk of groundwater contamination.</li> <li>4. Consider relocating and expanded prohibited uses.</li> <li>5. List activities subject to additional assessment or prohibition.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity/BAS</li> <li>2. BAS</li> <li>3. BAS</li> <li>4. Clarity</li> <li>5. Clarity</li> </ol>
17.65.330	Aquifer recharge initial project review.	<ol style="list-style-type: none"> <li>1. Revise section title to Critical Aquifer Recharge Areas Performance Standards – Specific Uses</li> <li>2. Update list of activities regulated in CARAs to reflect: <ul style="list-style-type: none"> <li>• Broader set of activities with potential groundwater impacts</li> <li>• Updated state and federal regulatory citations</li> <li>• Expanded applicability</li> </ul> </li> <li>3. Specify prohibited uses in all CARAs based on their potential to contaminate groundwater resources.</li> <li>4. Consider deleting site assessment information.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. BAS</li> <li>3. BAS/Clarity</li> <li>4. Clarity</li> </ol>

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.340	Aquifer recharge site assessment report.	<ol style="list-style-type: none"> <li>1. Revise section title to <i>“Critical Aquifer Recharge Area Hydrogeologic Assessment”</i>.</li> <li>2. Consider updating all references from <i>“site assessment”</i> report to <i>“hydrogeologic assessment”</i></li> <li>3. Consider adding that the hydrogeologic assessment must be prepared by a qualified professional with appropriate groundwater expertise.</li> <li>4. Consider clarifying applicability criteria.</li> <li>5. Consider revising the requirements for a hydrogeologic assessment</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. BAS, Clarity</li> <li>3. BAS</li> <li>4. Clarity</li> <li>5. BAS</li> </ol>
17.65.350	Aquifer recharge area mitigation.	No recommendations	N/A
17.65.360	Aquifer recharge public notice and review.	Cross reference projects identified in Section 17.65.330 to require public notice.	Clarity

## 4.1 Aquifer recharge areas (SWMC 17.65.300)

For consistency with state critical areas terminology, it is recommended that SWMC 17.65.300 update the term “Aquifer Recharge Areas” to “Critical Aquifer Recharge Areas” throughout the section, consistent with WAC 365-190-030.

To strengthen implementation, it is recommended that this section includes clearer intent language establishing the purpose of the CARA regulations. Such intent language should identify groundwater resources that are vulnerable to contamination or depletion, identify activities and uses that may adversely affect groundwater quality and quantity, and emphasize the importance of protecting existing and future beneficial uses of groundwater.

Additionally, it is recommended that SWMC 17.65.300 more clearly reinforce groundwater protection principles consistent with best available science and applicable state law. This could include articulating

expectations for avoidance, minimization, and prevention of groundwater degradation, and clarifying consistency with relevant RCW and WAC provisions governing groundwater quality, drinking water protection, and antidegradation. Establishing this intent would provide a clearer policy foundation for detailed CARA performance standards, assessments, and mitigation requirements that follow in subsequent sections.

For clarity and internal consistency, it is further recommended that references to “regulation” be revised to “chapter” where appropriate.

## **4.2 Aquifer recharge area designations (SWMC 17.65.310)**

To improve clarity and implementation of the CARA regulations, it is recommended that Section 17.65.310 include an explicit reference to the City’s adopted critical area maps for purposes of identifying Critical Aquifer Recharge Areas. Referencing mapped information would improve consistency with mapping practices used elsewhere in the CAO and provide clearer guidance to applicants and reviewers when determining whether a project site is located within a CARA.

It is recommended that the CARA designation categories and criteria be more clearly articulated using WAC 365-190-100(4)(b) as a guide. Aligning local CARA designation criteria with state guidance would strengthen consistency with best available science, clarify the basis for categorizing CARAs, and improve transparency regarding why certain areas are subject to higher levels of protection.

Due to Sedro-Woolley’s inland location and hydrogeologic setting, it is recommended that references to saltwater intrusion be removed from the CARA designation criteria, as this condition is not applicable within the city and may cause confusion regarding groundwater risks.

Finally, the City could consider referencing the Washington State Department of Health (DOH) Source Water Assessment Program (SWAP) maps as part of the CARA designation framework, particularly for identifying and protecting Group A wellhead protection areas. Incorporating DOH source water assessment information would support coordination with state drinking water protection programs and improve identification of groundwater resources critical for public water supply.

## **4.3 Aquifer recharge applicability and prohibited activities (SWMC 17.65.320)**

For clarity and organization, it is recommended to revise the title of this subsection to “*Critical Aquifer Recharge Areas Performance Standards – General Requirements*” to clearly distinguish these general standards from the use-specific performance standards addressed in subsequent sections.

To improve consistency with the overall CAO framework and Ecology guidance for critical aquifer recharge areas, the City could consider adding explicit impact avoidance and minimization standards applicable to development within CARAs. Incorporating these standards, including reference to

mitigation sequencing, would clarify expectations that potential groundwater impacts should first be avoided, then minimized, before mitigation is considered.

It is also recommended that Best Management Practices (BMPs) be incorporated into this section to reduce the risk of groundwater contamination. Including BMP requirements and examples applicable to CARAs, such as spill prevention measures, stormwater management controls, and hazardous material handling practices, would provide clearer and more enforceable standards to protect groundwater quality.

For improved code organization and implementation, the City could consider relocating prohibited uses and activities that require additional assessment or review to SWMC 17.65.330. Consolidating these provisions would allow SWMC 17.65.320 to focus on general performance standards, while clearly identifying higher-risk activities in a dedicated use-specific section. As part of this approach, the City could also consider expanding the list of prohibited uses and activities that require assessment, and referencing applicable WAC provisions where appropriate, to better align with state regulatory programs governing groundwater protection.

#### **4.4 Aquifer recharge initial project review (SWMC 17.65.330)**

For clarity and consistency, it is recommended to revise the title of this subsection to *“Critical Aquifer Recharge Areas Performance Standards – Specific Uses”* to clearly distinguish use-specific standards from the general performance standards addressed in SWMC 17.65.320.

To improve groundwater protection and regulatory clarity, the City could consider updating the list of activities regulated within CARAs to reflect a broader range of uses with the potential to adversely affect groundwater quality or quantity. This could include expanding the list of regulated activities, updating state and federal regulatory citations, and clarifying applicability to better align with current RCW, WAC, and federal regulatory frameworks governing hazardous materials, waste management, and water quality protection.

This subsection could be strengthened by specifying uses that are prohibited in all CARAs based on the probability and of their adverse effects on groundwater resources. Clearly identifying prohibited uses would help distinguish high-risk activities that are incompatible with groundwater protection from those that may be subject to review and conditioning.

Finally, the City could consider removing site assessment language from this subsection and addressing assessment requirements in a separate section. Relocating site assessment provisions would improve code organization, reduce redundancy, and clarify that hydrogeologic assessments are addressed comprehensively elsewhere in the CARA regulations.

## **4.5 Aquifer recharge site assessment report (SWMC 17.65.340)**

For clarity, it is recommended to revise the title of this subsection to “Critical Aquifer Recharge Area Hydrogeologic Assessment” to better reflect the purpose and technical focus of the section.

To improve consistency and avoid confusion with other critical area or geologic site assessments, the City could consider updating all references from “site assessment” report to “hydrogeologic assessment” throughout the CARA chapter. This terminology aligns with state guidance and professional practice.

It is recommended that the code specify that a hydrogeologic assessment must be prepared by a qualified professional with appropriate groundwater and hydrogeologic expertise. Clarifying professional qualifications would strengthen technical credibility, support defensible decision-making, and ensure that assessment conclusions are based on relevant training and experience.

The City should consider clarifying applicability criteria for when a hydrogeologic assessment is required. Clearly identifying the types of activities, locations, or conditions that trigger an assessment, as well as any limited exceptions, would improve predictability for applicants and provide clearer directions for staff review.

Finally, it is recommended that the required contents of a hydrogeologic assessment be revised to ensure alignment with accepted report standards. Refining these requirements would promote consistency, completeness, and clarity in submitted reports, and better support review of groundwater risks, proposed mitigation measures, and long-term protection of aquifer recharge functions.

## **4.6 Aquifer recharge public notice and review (SWMC 17.65.360)**

It is recommended that this section includes a clear cross-reference to the projects and activities identified in SWMC 17.65.330 to specify that these projects are subject to public notice. Explicitly linking public notice requirements to the types of higher-risk uses regulated under SWMC 17.65.330 would improve transparency, support informed public participation, and clarify procedural expectations for developments with the potential to affect critical aquifer recharge areas.

# **5. GEOLOGICALLY HAZARDOUS AREAS (ARTICLE 4)**

This section addresses code applicable to Article 4: Geologically Hazardous Areas as described in SWMC 17.65.400-17.65.440. A summary of recommended updates is provided in Table 11.

Table 11. Geologically Hazardous Areas review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.400	Geologically hazardous area designations.	Update definition reference to WAC 365-190-030.	WAC
17.65.410	Geologically hazardous area initial project review.	1. Update geologically hazardous area designation descriptions to comply with WAC 365-190-120. 2. Remove references to Coastal Zone Atlas.	1. Clarity/ applicability 2. Geographic location
17.65.420	Geologically hazardous area site assessment requirements.	Provide clarity on when a geologically hazardous area site assessment is required.	Clarity
17.65.430	Geologically hazardous area mitigation standards.	1. Increase the minimum buffer width for landslide and erosion hazard areas with a vertical relief greater than 50 feet. 2. Require a quantitative analysis using a slope stability model prior to authorizing an alteration or buffer reduction for geologically hazardous areas.	1. BAS 2. BAS
17.65.440	Geologically hazardous area public review and record.	No comments or recommendations	N/A

## 5.1 Geologically hazardous area designations (SWMC 17.65.400)

It is recommended to revise the reference for the definitions of geologically hazardous areas from WAC 165-195-080(4) to WAC 365-190-030.

## 5.2 Geologically hazardous area initial project review (SWMC 17.65.410)

To ensure consistency with state law, it is recommended to update each geologically hazardous area designation criteria to comply with WAC 365-190-120. Additionally, the City could consider removing

all references to the Washington State Department of Ecology Coastal Zone Atlas due to the geographic location of the City of Sedro-Woolley.

### **5.3 Geologically hazardous area site assessment requirements (SWMC 17.65.420)**

To provide consistent application of the regulations, it is recommended that the code provide clearer direction for when a geologically hazardous area site assessment is required. To improve implementation, it is recommended that the director be required to determine whether the proposed development activity is located within 200 feet of an area of known or suspected risk as identified in Section 17.65.410, or within a distance from the base of a landslide hazard area equal to the vertical relief. If the director determines that the geologic conditions may pose a risk to life, property, or other critical areas on or off the project site, a geologically hazardous area site assessment, as outlined in this section, shall be required.

### **5.4 Geologically hazardous area mitigation standards (SWMC 17.65.430)**

To reduce risk to life safety and property damage, it is recommended to increase the minimum buffer width from 30 feet to 50 feet for landslide and erosion hazard areas with a vertical relief greater than 50 feet, similar to Skagit County. Additionally, the City should consider requiring a quantitative analysis using a slope stability model prior to authorizing an alteration or buffer reduction for geologically hazardous areas.

## **6. FISH AND WILDLIFE HABITAT CONSERVATION AREAS (ARTICLE 5)**

This section addresses code applicable to Article 5: Fish and Wildlife Habitat Conservation Areas as described in SWMC 17.65.500-17.65.530. A summary of recommended updates is provided in Table 12.

Table 12. Fish and Wildlife Habitat Conservation Areas review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.500	Fish and wildlife habitat conservation area designations.	<ol style="list-style-type: none"> <li>1. Add a cumulative-impact review standard to the FWHCA provisions.</li> <li>2. Relocate and revise list of designated FWHCAs from Subsection 17.65.510(B) to align with WAC 365-190-130.</li> <li>3. Review habitats of local significance using the WDFW PHS maps.</li> </ol>	<ol style="list-style-type: none"> <li>1. WDFW guidance</li> <li>2. BAS and WAC 365-190-130</li> <li>3. BAS</li> </ol>
17.65.510	Fish and wildlife habitat conservation areas initial project review.	Clarify difference between FWHCA site assessment and habitat management plan.	Clarity and WDFW guidance
17.65.520	Fish and wildlife habitat conservation area site assessment requirements.	<ol style="list-style-type: none"> <li>1. Review and revise reporting requirements for site assessment and revise terminology.</li> <li>2. Review and revise reporting requirements for a habitat management plan.</li> <li>3. Suggest cross-referencing mitigation requirements under SWMC 17.65.160.</li> <li>4. Include measures for bolstering climate resilience that increase habitat connectivity.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clarity</li> <li>2. BAS</li> <li>3. BAS</li> <li>4. WDFW guidance</li> </ol>

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.530	Fish and wildlife habitat conservation area mitigation standards.	<ol style="list-style-type: none"> <li>1. Clarify extent of riparian buffer area and when associated wetlands are present, the most protective buffer shall apply.</li> <li>2. Review riparian forest functions and update.</li> <li>3. Consider including minimum vegetative buffer standards.</li> <li>4. Review WDFW's Riparian Management Zone (RMZ) approach for stream protection.</li> <li>5. Review and update criteria for increasing standard buffer widths.</li> <li>6. Revise decreasing buffer width criteria to be only applied for reasonable use exceptions.</li> <li>7. Add a functionally disconnected buffer provision.</li> <li>8. Review allowed structures, uses, and activities.</li> <li>9. Revise the allowance for "limited park or recreational access to FWHCA" to "Public and private nonmotorized trails" and update criteria.</li> <li>10. Consider removing timber allowance and referring to DNR Forest Practice Rules.</li> <li>11. Clarify protections for bald eagles and applicability.</li> </ol>	<ol style="list-style-type: none"> <li>1. WDFW guidance</li> <li>2. WDFW guidance</li> <li>3. BAS</li> <li>4. WDFW guidanceB and BAS</li> <li>5. WDFW guidance</li> <li>6. BAS</li> <li>7. BAS</li> <li>8. BAS and WDFW guidance</li> <li>9. WDFW guidance</li> <li>10. Relevance</li> <li>11. Consistency</li> </ol>

## **6.1 Fish and wildlife habitat conservation area designations (SWMC 17.65.500)**

It is recommended to include a cumulative-impact review standard to the FWHCA provisions to align with best available science. Additionally, the City could improve clarity by relocating the existing designation criteria from Subsection 17.65.510(B) and revising the list of designated FWHCAs for consistency with WAC 365-190-130. The City should consider adding a new subsection that includes that additional species and habitats of local importance include areas in which state-listed priority species are found, have a primary association with, or contain suitable habitat for said listed species, as listed on the Washington Department of Fish and Wildlife's Priority Habitats and Species (PHS) list should be included.

## **6.2 Fish and wildlife habitat conservation areas initial project review (SWMC 17.65.510)**

To improve clarity, it is recommended to establish the difference between FWHCA site assessment and habitat management plan and the corresponding report requirements in SWMC 17.65.520 to improve application.

## **6.3 Fish and wildlife habitat conservation area site assessment requirements (SWMC 17.65.520)**

It is recommended to review and revise reporting requirements for site assessments and provide a distinction between site assessments and habitat management plans. To aid this implementation, the reporting requirements for a habitat management plan should also be reviewed and revised to align with WDFW guidance. To provide consistency between other sections, it is recommended to cross reference the mitigation requirements under SWMC 17.65.160. In alignment with WDFW guidance, measures for bolstering climate resilience that increase habitat connectivity could be incorporated, including that mitigation sites should be located to preserve or achieve contiguous wildlife habitat corridors to minimize the isolating effects of development on habitat areas.

## **6.4 Fish and wildlife habitat conservation areas standards (SWMC 17.65.530)**

This section should be revised to clarify the extent of riparian buffer area and that the measurements should be taken from the ordinary high water mark or the edge of a channel migration zone, where present, in alignment with WDFW guidance. Clarity should also be added that when associated wetlands are present, the most protective buffer shall be applied. The riparian forest functions should be reviewed and updated to include pollution control and detrital nutrient input to align with BAS. Riparian buffer areas are expected to be fully vegetated to provide the necessary functions and values to protect riparian habitat and species. As such, the City should consider incorporating minimum vegetative buffer standards.

In 2020, the Washington Department of Fish and Wildlife released new guidance (Rentz et al. 2020) for the protection of riparian areas. The guidance emphasizes a shift in terminology from the concept of “stream buffers” to “riparian management zones” (RMZs). A RMZ is defined as “...a scientifically based description of the area adjacent to rivers and streams that has the potential to provide full function based on the SPTH [site potential tree height] conceptual framework.” Further, a RMZ is recommended to be regulated as a fish and wildlife habitat conservation area itself to protect its fundamental value, rather than as a buffer for rivers and streams (Quinn et al. 2020). Stream buffers are established in local critical areas ordinances based on best available science and are intended to protect streams but may or may not provide full riparian function or a close approximation of it.

To achieve full riparian function, the guidance recommends that RMZs be considered a delineable, regulatory critical area and that the guidance be applied to all streams and rivers, regardless of size and type. Washington Department of Fish and Wildlife’s current recommendations for establishing RMZ widths are based primarily on a site potential tree height framework. The site potential tree height is defined as “...the average maximum height of the tallest dominant trees (200 years or more) for a given site class.” Exceptions may occur where site potential tree height is less than 100 feet, in which case the agency recommends assigning a RMZ width of 100 feet at a minimum to provide adequate biofiltration and infiltration of runoff for water quality protection from most pollutants, but also in consideration of other habitat-related factors including shade and wood recruitment. A 100-foot-wide buffer is estimated to achieve 95% pollution removal and approximately 85% surface nitrogen (Rentz et al. 2020). Washington Department of Fish and Wildlife recommends measuring RMZ widths from the outer edge of the channel migration zone, where present, or from the ordinary high water mark where a channel migration zone is not present.

Riparian management zones or buffers that vary by location may present practical challenges for implementation and have considerations in equity. To analyze the potential range of SPTH<sub>200</sub> in the City of Sedro-Woolley, Facet conducted a review of the data available from the WDFW Site Potential Tree Height Mapping Tool, as described below. All overlapping polygons were removed so only polygons with the greatest SPTH<sub>200</sub> value in each area are included. When multiple SPTH<sub>200</sub> values for various species were provided, only the largest SPTH<sub>200</sub> value was used in this calculation. The SPTH<sub>200</sub> RMZ widths in Sedro-Woolley range from 100 ft to 245 ft (Figure 1).

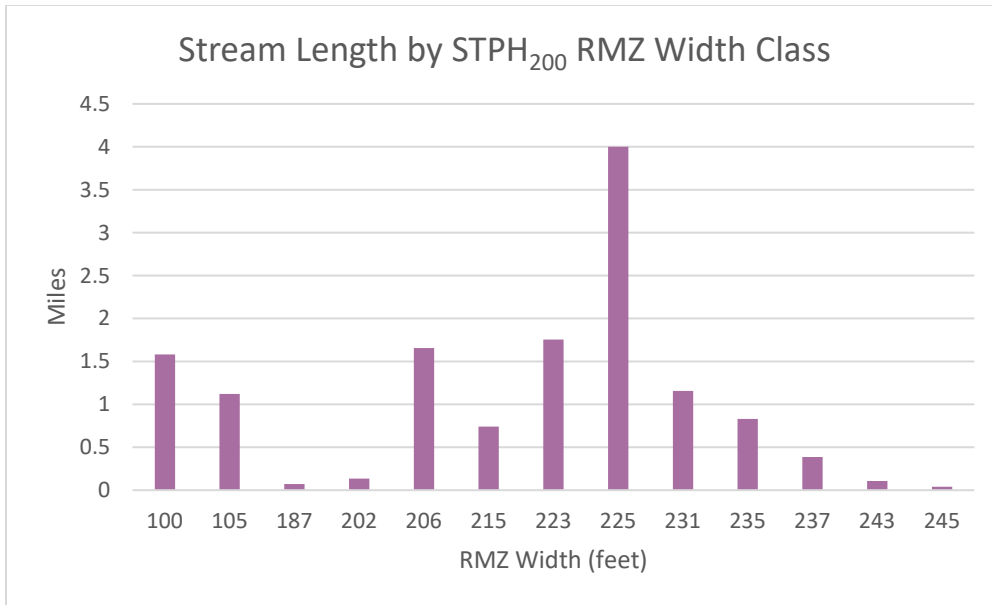


Figure 1. Chart of the length of stream in each SPTH RMZ width class in Sedro-Woolley using data from the WDFW SPTH<sub>200</sub> Mapping Tool.

There are approximately 11.8 miles of Type F streams and 1.7 miles of Type N streams within Sedro-Woolley’s incorporated and UGA areas. Ten (10) miles of Type F streams (85%) are in an SPTH<sub>200</sub> RMZ width class above 200 feet (Figure 2). For Type N streams, 50% (0.89 miles), by stream length, are in the 105-foot SPTH<sub>200</sub> RMZ width class (Figure 3).

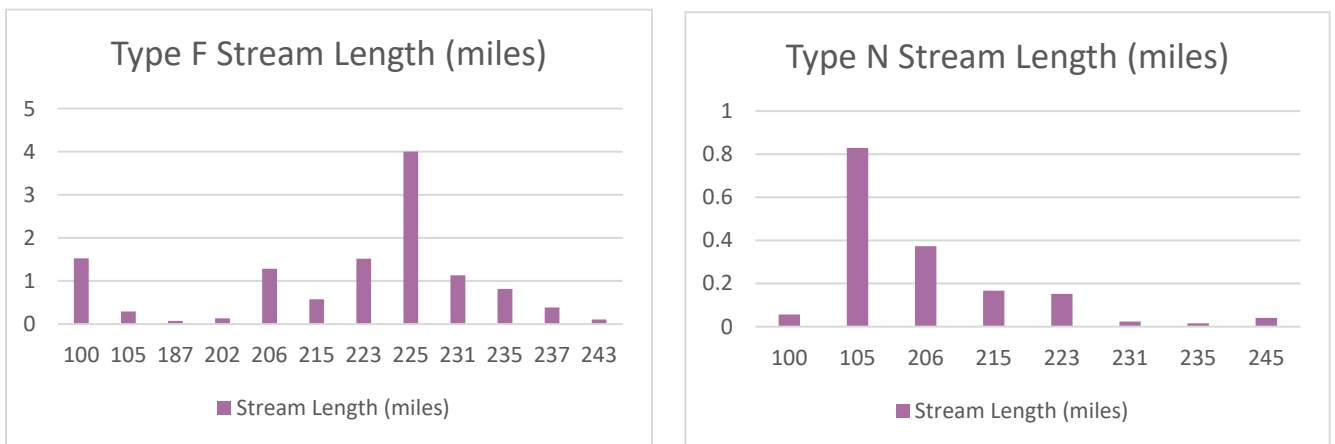


Figure 2. Stream Length for each Stream Type in SPTH<sub>200</sub> RMZ Width Class.

Figures 3 and 4 illustrate where the riparian buffers are located, along with a comparison of buffer widths on streams in the north area of the City.

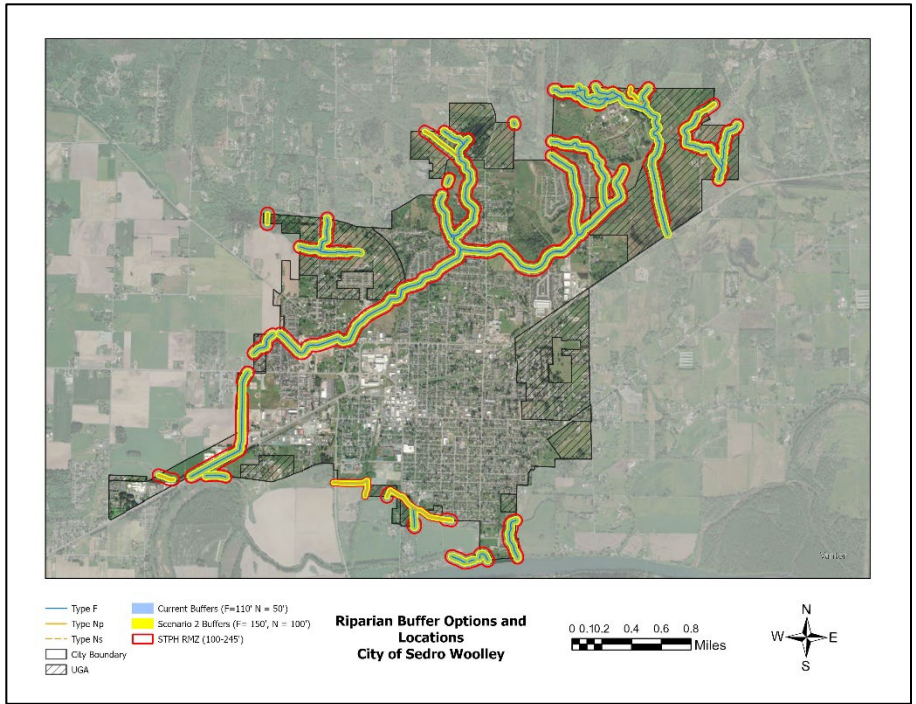


Figure 3. Map of Buffer and RMZ distribution in Sedro-Woolley.

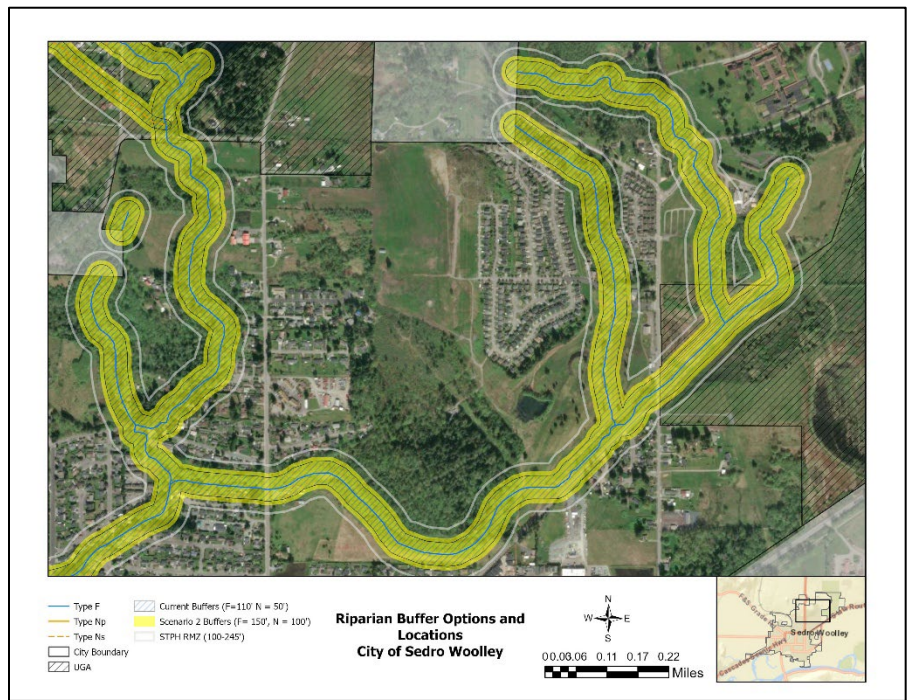


Figure 4. Map of Buffers and RMZs in the North Area of Sedro-Woolley.

As a part of the CAO update, it is recommended that Sedro-Woolley consider whether to follow WDFW recommended RMZ approach to stream classifications and buffer widths, including whether to incorporate the SPTH<sub>200</sub> Mapping Tool as part of stream buffer protection standards. This includes consideration of extending the buffer from the edge or channel migration zone or OHWM, whichever is greater, to align with the RMZ buffer recommendations in Rentz et al. (2020).

It is recommended that Sedro-Woolley further define water types by adopting WAC 222-16-030 by reference. The “DNR water types” have been subject to change over time, and this would avoid potential ambiguity. Additionally, the table implies that buffers extend only from the OHWM of streams. This should clarify that buffers extend from the OHWM of all aquatic priority habitats including lakes, ponds, streams, rivers, streams, and all other Waters of the State.

To better align with WDFW guidance, it is recommended to replace the “Water Type Riparian Buffer” table with Table 17.65.530-1, Standard Riparian bufferAreas Widths, to include riparian buffer area widths consistent with BAS and update water typing system for consistency with WAC 222-16-031. The Stream Buffer and Riparian Management Zone (RMZ) GIS Analysis Technical Memorandum dated April 9, 2026 (Appendix A) further describes scenarios for the City to consider.

A graphical representation of the Forest Ecosystem Management Assessment Team (FEMAT) Curves is shown in Figure 5, which are considered in WDFW’s recommendations for establishing the dimensions of RMZs (Rentz et al. 2020). The figure depicts the effectiveness of several functions based on buffer width from the edge of a stream. SPTH<sub>200</sub> is a practical buffer dimension because it is large enough to protect nearly all riparian functions. However, the FEMAT curve also shows that further buffer increases yield diminishing returns and most buffer function is achieved at roughly 75 to 80 percent of SPTH<sub>200</sub>.

Based on the GIS analysis conducted in Appendix A, the average SPTH<sub>200</sub> in Sedro-Woolley is 223 feet. 75 percent of a 223-foot RMZ equates to approximately 167 feet. These results reflect an analysis of all streams, regardless of stream type.

When considering only Type F streams (Types 2 and 3), 46 percent of the stream length occurs within RMZs that are 223 feet wide or narrower, and 54 percent occurs within RMZs that are 225 feet wide or wider. Given the similar proportions between all streams and Type F streams, the 165-foot RMZ remains an appropriate reference width for Type F streams as well. A 150 buffer with a 15-foot building setback would allow for this RMZ value to be met.

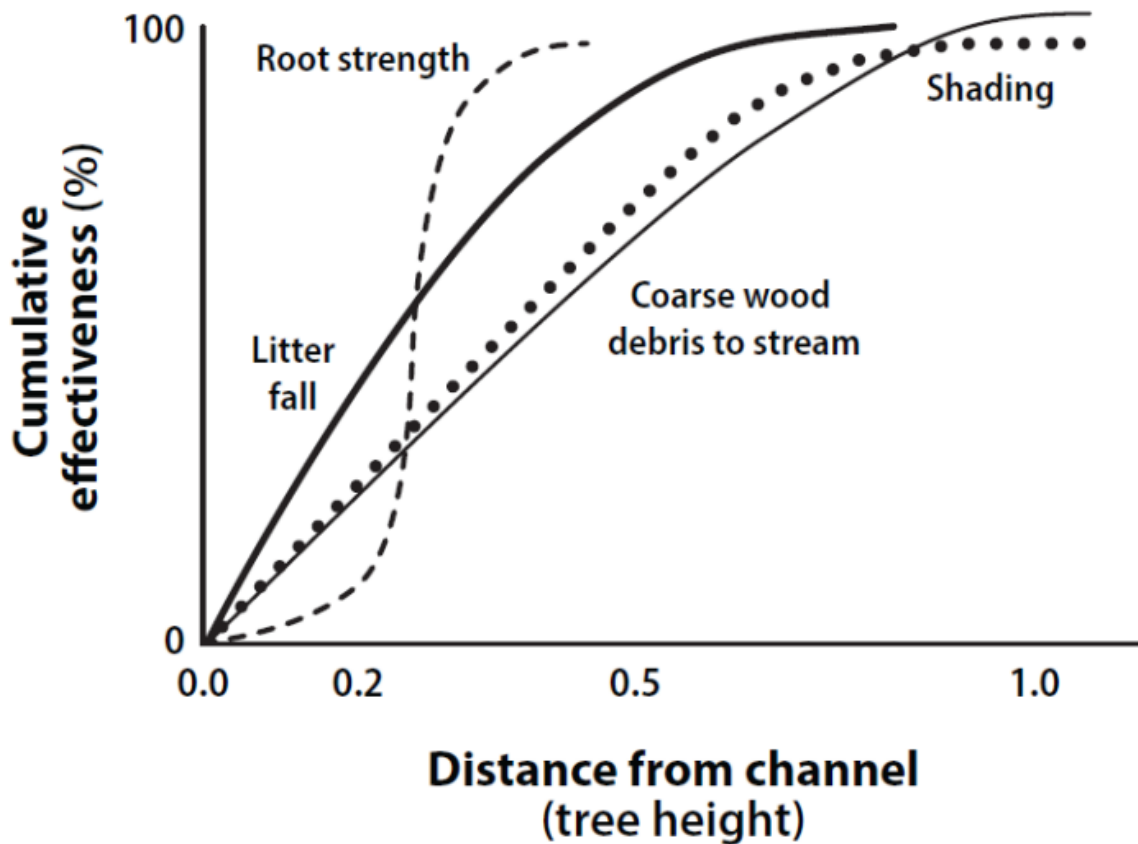


Figure 5. The “FEMAT Curves”: a conceptual model of the contributions of key riparian ecosystem functions which influence aquatic ecosystems by distance and cumulative effectiveness. Tree height refers to the average relative height of the site potential tree height (reproduced from FEMAT 1993).

The existing stream buffer widths contained within SWMC 17.65.530.B includes the following:

Water Type Riparian Buffer	
Type 1 and 2	200 feet
Type 3	110 feet
Type 4 and 5	50 feet

The City could also consider an option of including alternative riparian habitat area standards in lieu of the default widths when a critical area report is prepared by a qualified professional and demonstrates the riparian habitat area will protect riparian ecosystem functions as well as the default table. The standards could include that SPTH200 values may be obtained from the WDFW SPTH200 mapping datasets and tools for the City of Sedro-Woolley or may be calculated in the field using WDFW's Guidelines for Determining SPTH200 from Field Measurements (2025), or as amended, with documentation included in the critical area report. To ensure adequate pollution removal, in all cases the riparian habitat area shall not be less than one hundred (100) feet to ensure high pollutant removal efficacy. The critical area report should map riparian vegetation limits, document SPTH200 methods and values, and include a functions-based analysis comparing the proposed riparian habitat areas to the default widths.

If the City elects to adopt a proposed Type F stream buffer that does not align with the average SPTH200 buffer width observed throughout the City of Sedro-Woolley (223 feet, as noted above), the City should consider incorporating provisions to ensure that either: (1) buffers are fully vegetated and provide a high level of riparian function, or (2) buffer widths are increased by 33 percent. With these provisions, buffer enhancements should be required through an approved mitigation plan to achieve a minimum of 80 percent native plant cover representative of the appropriate native plant community. Decreased buffer width allowances should also be limited to reasonable use exceptions to better align with BAS.

Further, allowed structures, uses, and activities should be reviewed for consistency with WDFW guidance and for applicability. The provisions for docks should be deleted, and administration should be conducted through the Shoreline Master Program (SMP). To address existing uses within FWHCA buffers, it is recommended to include a new subsection for functionally disconnected buffers. It is also recommended that the allowance for "limited park or recreational access to FWHCA" be revised to "public and private nonmotorized trails," with updated and clearly defined criteria. The City should also consider removing provisions related to timber allowance and instead reference the DNR Forest Practices Rules, given their likely applicability within city limits. Lastly, due to changes in Bald Eagle protections, the City should consider clarifying applicable standards and the extent of those protections.

## 7. FLOOD HAZARD AREA (ARTICLE 6)

This section addresses code applicable to Article 6: Flood Hazard Area as described in SWMC 17.65.600. A summary of recommended updates is provided in Table 13.

Table 13. Flood Hazard Areas review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.600	Standards for flood hazard areas.	1. Revise title to “Standards for frequently flooded areas.”  2. Crosswalk to Chapter 17.66 SWMC, Flood Damage Prevention.	1. Clarity  2. Clarity

## 7.1 Standards for flood hazard areas (SWMC 17.65.600)

For improved clarity, it is recommended to revise the title to “Standards for Frequently Flooded Areas” to more clearly reflect the scope and applicability of the regulations, and include a direct crosswalk to Chapter 17.66 SWMC, Flood Damage Prevention, to improve consistency, usability, and regulatory alignment across the code and help users easily identify and apply related flood hazard standards.

## 8. COMPLIANCE AND ENFORCEMENT (ARTICLE 7)

This section addresses code applicable to Article 7: Compliance and Enforcement as described in SWMC 17.65.700 - 17.65.760. A summary of recommended updates is provided in Table 14.

Table 14. Compliance and enforcement review summary.

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.710	Compliance with critical area regulations.	No comments or recommendations	N/A
17.65.720	Construction.	No comments or recommendations	N/A
17.65.730	Severability.	No comments or recommendations	N/A
17.65.740	State Environmental Policy Act.	Recommend relocating the SEPA information found in SWMC 17.65.060(C)(3) and (4) to this section.	Clarity
17.65.750	Liability disclaimer—Flood hazard areas.	Revise title to “Liability disclaimer—Frequently flooded areas.”	Consistency

Code Section	Title	Review Comment and Recommendations	Reason for Recommendation
17.65.760	Enforcement of the critical areas regulations.	No comments or recommendations	N/A

## 8.1 State Environmental Policy Act (SWMC 17.65.740)

For improved clarity, it is recommended to relocate the SEPA-related information currently found in SWMC 17.65.060(C)(3) and (4) to this section to consolidate environmental review requirements in a more logical and accessible location, reduce redundancy across chapters, and improve clarity for applicants and reviewers by ensuring all relevant SEPA guidance is addressed alongside the substantive standards it most directly supports. This language could be revised as follows:

*This chapter establishes minimum standards which are to be applied to specific land use and platting actions in order to prevent further degradation of critical areas in the city, and is not intended to limit the application of the State Environmental Policy Act (SEPA). Projects subject to SEPA shall be reviewed and may also be conditioned or denied under Chapter 2.88 SWMC.*

*Satisfaction of the requirements of this chapter shall also be sufficient to satisfy the requirement for critical areas analysis and mitigation pursuant to Chapter 43.21C RCW, the State Environmental Policy Act (SEPA), and Chapter 2.88, Environmental Policy.*

*The goals, policies and purposes set forth in this chapter shall be considered policies of the State Environmental Policy Act. When applicable the applicant must meet SEPA requirements.*

## 8.2 Liability disclaimer—Flood hazard areas (SWMC 17.65.750)

For consistency with the proposed title revision in Article 6, it is recommended to revise the title of this subsection to “Liability disclaimer—Frequently flooded areas.”

## 9. REFERENCES

- Ecology (Washington Department of Ecology). 2022. Wetland Guidance for Critical Areas Ordinance (CAO) Updates, Western and Eastern Washington. Publication #22-06-014, Washington State Department of Ecology, Shorelands and Environmental Assistance Program.
- Ecology (Washington Department of Ecology), Corps (U.S. Army Corps of Engineers Seattle District), and EPA (U.S. Environmental Protection Agency Region 10). 2021. Wetland Mitigation in Washington State—Part 1: Agency Policies and Guidance (Version 2). Washington State Department of Ecology Publication #21-06-003.  
<https://apps.ecology.wa.gov/publications/documents/2106003.pdf>
- Facet. 2025a. Skagit County Critical Areas Ordinance (CAO) BAS Review. Prepared for Skagit County.  
<https://www.skagitcounty.net/PlanningAndPermit/Documents/compplan2025/Skagit%20County%20BAS%202.24.2025%20-%20FINAL.pdf>.
- Facet. 2025b. Technical Memorandum – Best Available Science (BAS) Review. Prepared for the City of Sedro-Woolley.
- FEMAT (Forest Ecosystem Management Assessment Team). 1993. Forest ecosystem management: an ecological, economic and social assessment. U.S. Department of Agriculture and U.S. Department of the Interior, Portland, OR.
- Hruby, T., and A. Yahnke. 2023. Washington State Wetland Rating System for Western Washington 2014 Update Version 2.0. Publication #23-06-009, Washington State Department of Ecology, Shorelands and Environmental Assistance Program.
- Quinn, T., G. F. Wilhere, and K. L. Krueger. 2020. Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications. Habitat Program, Washington Department of Fish and Wildlife, Olympia.
- Rentz, T., A. Windrope, K. Folkerts, and J. Azerrad. 2020. Riparian Ecosystems, Volume 2: Management Recommendations. Habitat Program. Washington State Department of Fish and Wildlife, Olympia.

**APPENDIX A.** City of Sedro-Woolley Stream  
Buffer and Riparian Management  
Zone (RMZ) GIS Analysis

## TECHNICAL MEMORANDUM

---

Date:	April 9, 2026
To:	City of Sedro-Woolley
From:	Dawn Spilsbury, GIS Analyst, Ecologist Rachel Henden, AICP, Planner Alexandra Plumb, Senior Planner
Project Name:	City of Sedro-Woolley Critical Area Ordinance Update
Facet Number:	2401.0458.00

---

### Stream Buffer and Riparian Management Zone (RMZ) GIS Analysis

The Growth Management Act (GMA) requires counties and cities to designate critical areas and adopt policies and regulations for their protection under RCW 36.70A.040 and Washington Administrative Code (WAC) 365-196-830. WAC 365-196-830(2) requires critical areas and ecosystem protection including Fish and Wildlife Habitat Conservation Areas (FWHCAs). Further, RCW 36.70A.172 requires that, *"in designating and protecting critical areas under this chapter, counties and cities shall include the best available science in developing policies and development regulations to protect the functions and values of critical areas."*

This technical memorandum presents the findings of an evaluation of stream protections in the City of Sedro-Woolley (Sedro-Woolley). Current buffer widths are reviewed relative to Washington Department of Fish and Wildlife (WDFW) recommendations and riparian functions. This analysis was prepared to support review of stream regulations for Sedro-Woolley's Critical Area Ordinance associated with the 2026 Comprehensive Plan periodic update.

In 2020, WDFW published a synthesis of best available science for riparian ecosystems (Quinn, Wilhere, and Krueger 2020) followed by management recommendations (Rentz et al. 2020). WDFW recommends regulating streams as riparian management zones (RMZs) with widths established based on a site potential tree height (SPTH) framework. The SPTH framework establishes RMZs based upon the height of a 200-year-old tree (SPTH<sub>200</sub>). Where the SPTH<sub>200</sub> or the width of the riparian vegetative community is less than 100 feet, WDFW recommends assigning a RMZ minimum width of 100 feet to provide adequate biofiltration and infiltration of runoff for water quality protection from most pollutants and to consider other habitat-related factors. A 100-foot-wide buffer is estimated to achieve 95% overall pollution removal and approximately 85% surface nitrogen removal to protect water quality (Rentz et al. 2020). WDFW also recommends measuring RMZ widths from the outer edge of the channel migration zone, where present, or from the Ordinary High-Water Mark (OHWM) where a channel migration zone is not present.

The implementation of the SPTH<sub>200</sub> model is supported by WDFW's GIS-based online mapping tool<sup>1</sup> developed to assist in the determination of the SPTH<sub>200</sub> based on specific ecoregions. The WDFW guidance recommends the SPTH<sub>200</sub> model be applied for determining RMZ widths for all streams, regardless of stream type or size. Based on WDFW's Volume 1, the guidance suggests that there are no significant differences in riparian ecosystem functions along non-fish-bearing streams relative to fish-bearing streams (Rentz et al. 2020). Riparian functions, for all stream types, include support for aquatic and riparian-obligate wildlife; corridors for wildlife movement; inputs of matter and energy that benefit wildlife habitat; connection between riparian vegetation and geomorphic processes; and cool water contributions to downstream reaches (Rentz et al. 2020). This WDFW guidance represents a shift from the stream protection standards (e.g., protective buffers based on stream classification/type) that many jurisdictions, including Sedro-Woolley, currently utilize.

As current BAS, WDFW guidance must be considered when developing policies and regulations to protect critical area functions and values consistent with criteria under (WAC 365-195-915). In addition, WAC 365-195-925 requires special consideration to conserving and protecting anadromous fisheries including their habitat for all stages of life.

A GIS spatial analysis was conducted as a part of this review to evaluate the differences in current stream buffer extents relative to RMZs based on SPTH<sub>200</sub>. This analysis also informs Facet's ongoing work with Sedro-Woolley.

## Methodology

To evaluate the difference between the recommended RMZs and existing CAO buffers, available data was processed in GIS to create layers which contain all streams in Sedro-Woolley and buffers or RMZs in each scenario. This process began with the aggregation of relevant data, as detailed in 0. Sedro-Woolley has no federally-owned land and tribal lands, or areas zoned as commercial forest or conservation, which are typically excluded from the analysis because these areas are not usually regulated by the CAO. A small portion of the Skagit River was excluded from this analysis as a Type S water.

Sedro-Woolley currently uses the previous state water typing system (Types 1 through 5) that has since been replaced by the current standard (Type S, F, Np and Ns) as was described in WAC 222-16-031 (Table 1). The permanent water typing system, WAC 222-16-030 became permanent March 1, 2026. The stream types addressed include:

---

<sup>1</sup> WDFW SPTH200 Mapping Tool  
<https://www.arcgis.com/home/item.html?id=23e7130c6279455c978ce48f96be8d3e>

**Table 1. Water Typing crosswalk<sup>2</sup>**

Previous Water Typing	Current Water Typing
Type 1 – Large rivers	Type S – Shorelines of the State
Type 2 – Large fish streams	Type F
Type 3 – Smaller fish streams	Type F
Type 4 – Non-fish streams, perennial	Type Np
Type 5 – Non-fish streams, seasonal	Type Ns
	Type U – unclassified streams that need field verification  Type X – various water features, such as artificially created and actively maintained irrigation ditches, sanitation ponds, pipelines

The data sources used in this GIS analysis are included in Table 2 below.

**Table 2. Data and sources used in this analysis.**

Data Type	Data Source	Last Updated
Streams	<a href="#">DNR Hydrography - Watercourses</a> for Stream Typing <a href="#">WA Ecology National Hydrography Dataset (NHD)</a> for Stream locations	2021 2025
SPTH <sub>200</sub>	PHS Riparian Site Potential Tree Height (SPTH) Downloads, Sedro-Woolley <a href="https://fortress.wa.gov/dfw/public/PublicDownload/Habitat/PHSRMZInformation/index.htm">https://fortress.wa.gov/dfw/public/PublicDownload/Habitat/PHSRMZInformation/index.htm</a>	2024
Zoning	Washington State Zoning Atlas <a href="https://www.commerce.wa.gov/growth-management/data-research/waza/">https://www.commerce.wa.gov/growth-management/data-research/waza/</a>	2026
UGAs	WA Geospatial Open Data Portal <a href="https://geo.wa.gov/">https://geo.wa.gov/</a>	2023

<sup>2</sup> [Forest Practices Water Typing | Department of Natural Resources](#)

Data Type	Data Source	Last Updated
City Boundary	WA Geospatial Open Data Portal <a href="https://geo.wa.gov/">https://geo.wa.gov/</a>	2023

The stream layer for the assessment was created using the WA Ecology NHD layer and applying Type F or N stream typing from the DNR Hydrocourses layer. The Stream typing was further delineated into Type Np and Type Ns using the Fcode field from the NHD layer that delineates perennial and intermittent, respectively.

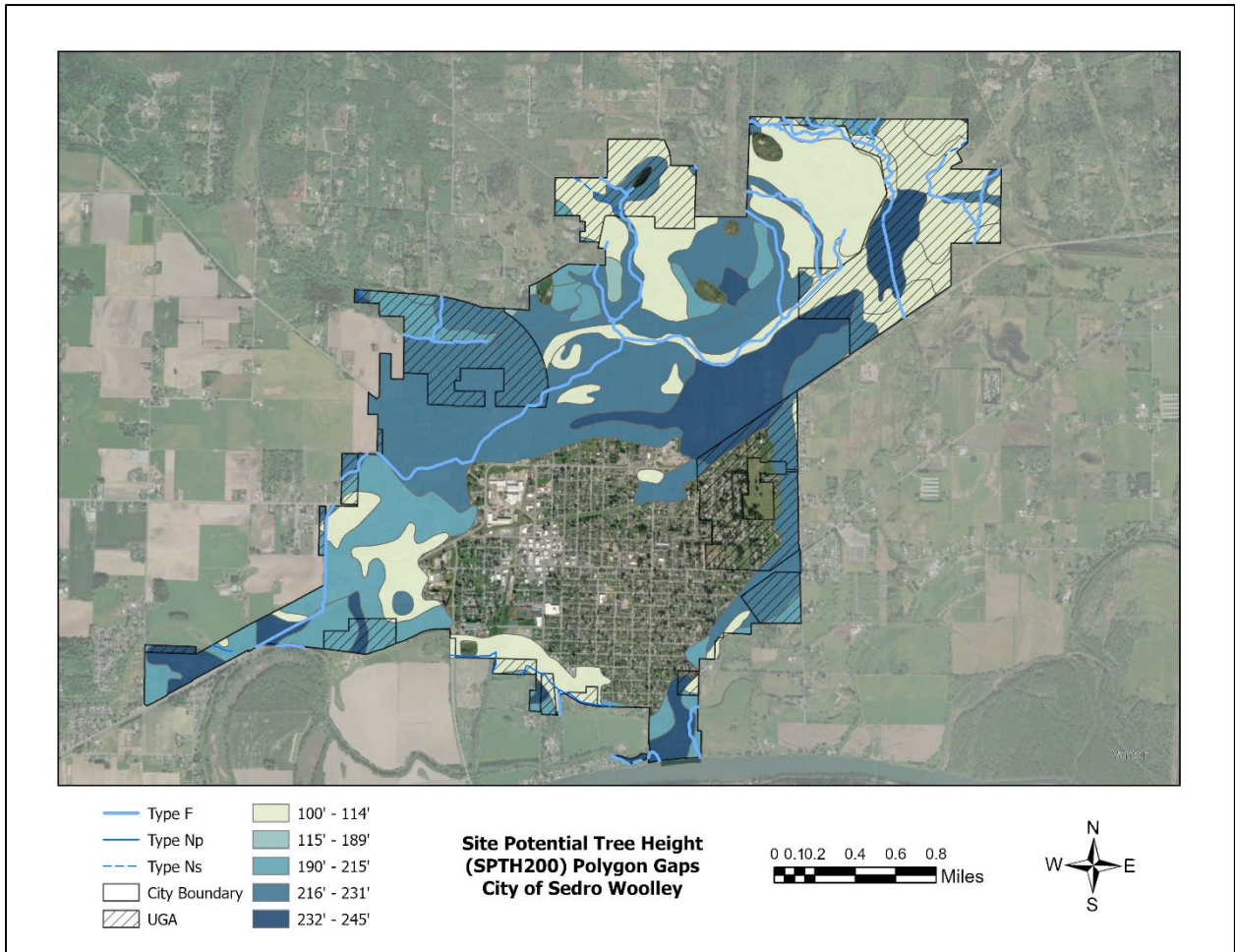
Three (3) scenarios were created to assess different buffer applications and corresponding potential impact. The three scenarios are listed in Table 3 below. Streams were buffered according to their stream type using the Type 3, Type 4 and Type 5 values from the current CAO (Scenario 1), SPTH<sub>200</sub> values (Scenario 3) and one additional alternative scenario. Scenario 2 widths have been approved in several other jurisdictions, such as Skagit County. The SPTH<sub>200</sub> RMZs were generated using the SPTH<sub>200</sub> values provided by WDFW. While Table 3 includes several scenarios, these are not intended to be the only options the City can consider during the update of the CAO.

**Table 3.** Sedro-Woolley stream buffers per SWMC 17.65.530.B, SPTH<sub>200</sub> and an alternate scenario. All widths are in feet (ft).

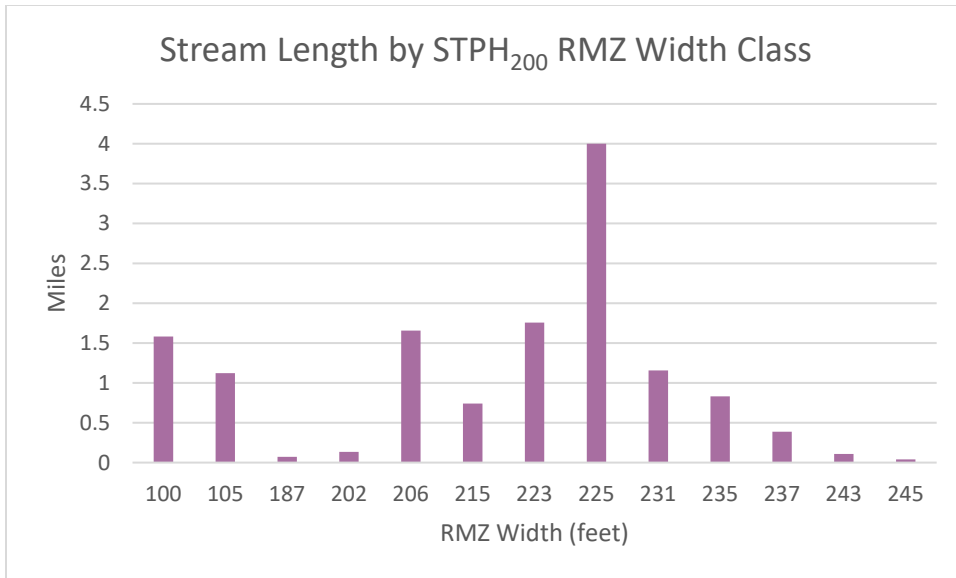
Stream Type	Existing Regulatory Width	Scenario 2	SPTH <sub>200</sub>
Type 1 (Type S)	200	SMP Jurisdiction	100-245
Type 2 (Type F)	200	150	
Type 3 (Type F)	110	150	
Type 4 (Type Np)	50	100	
Type 5 (Type Ns)	50	100	

## Results

There are no SPTH<sub>200</sub> Polygons in the WDFW data for the downtown area of Sedro-Woolley. However, there are no streams noted in this area, either. Therefore, the gap in SPTH<sub>200</sub> data has a minimum impact on the assessment. RMZ widths vary between 100 feet and 245 feet (Figure 1).

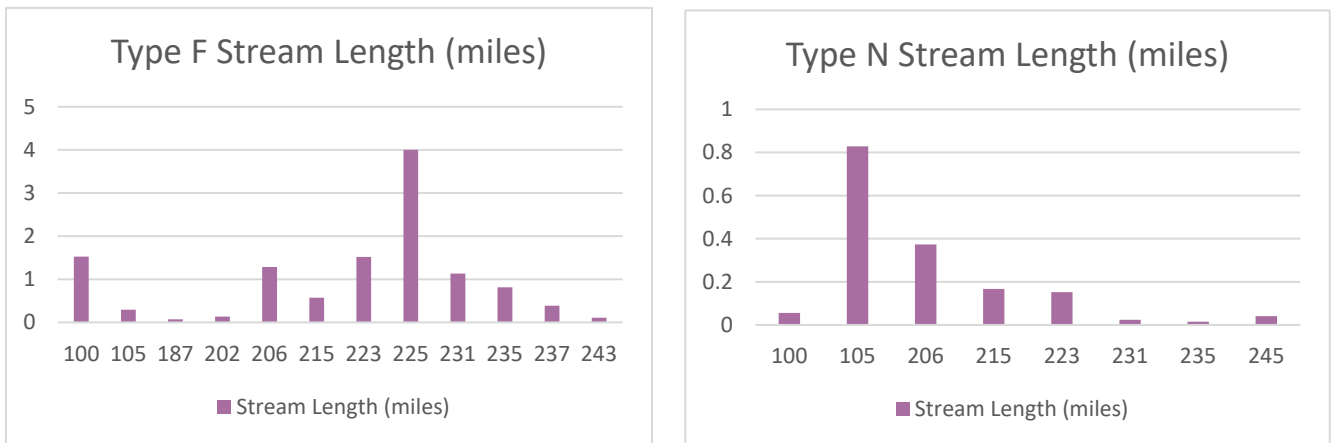


**Figure 1.** Map of SPTH<sub>200</sub> polygon gaps in relation to stream locations.

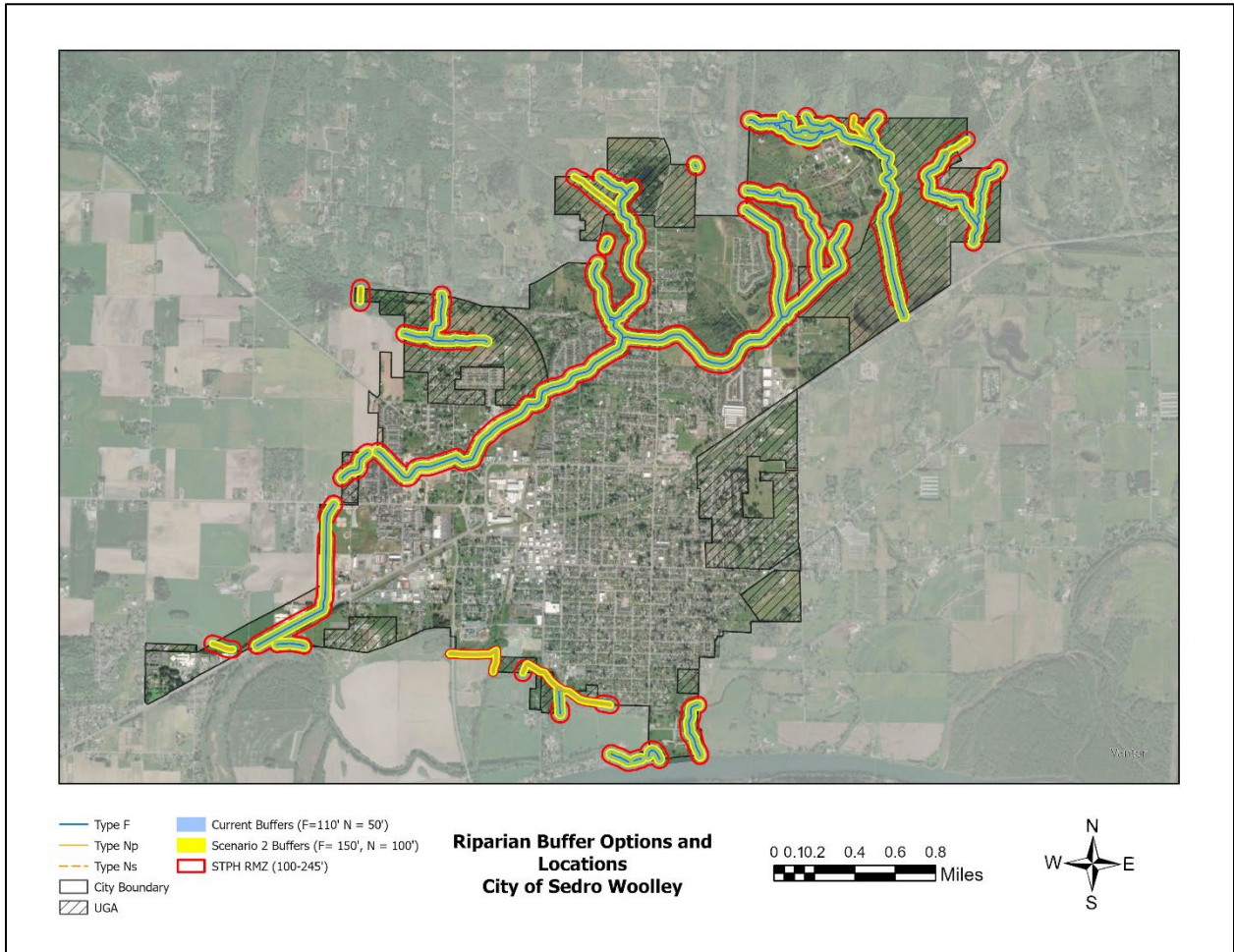


**Figure 2.** Distribution of SPTH<sub>200</sub> RMZ widths by stream length

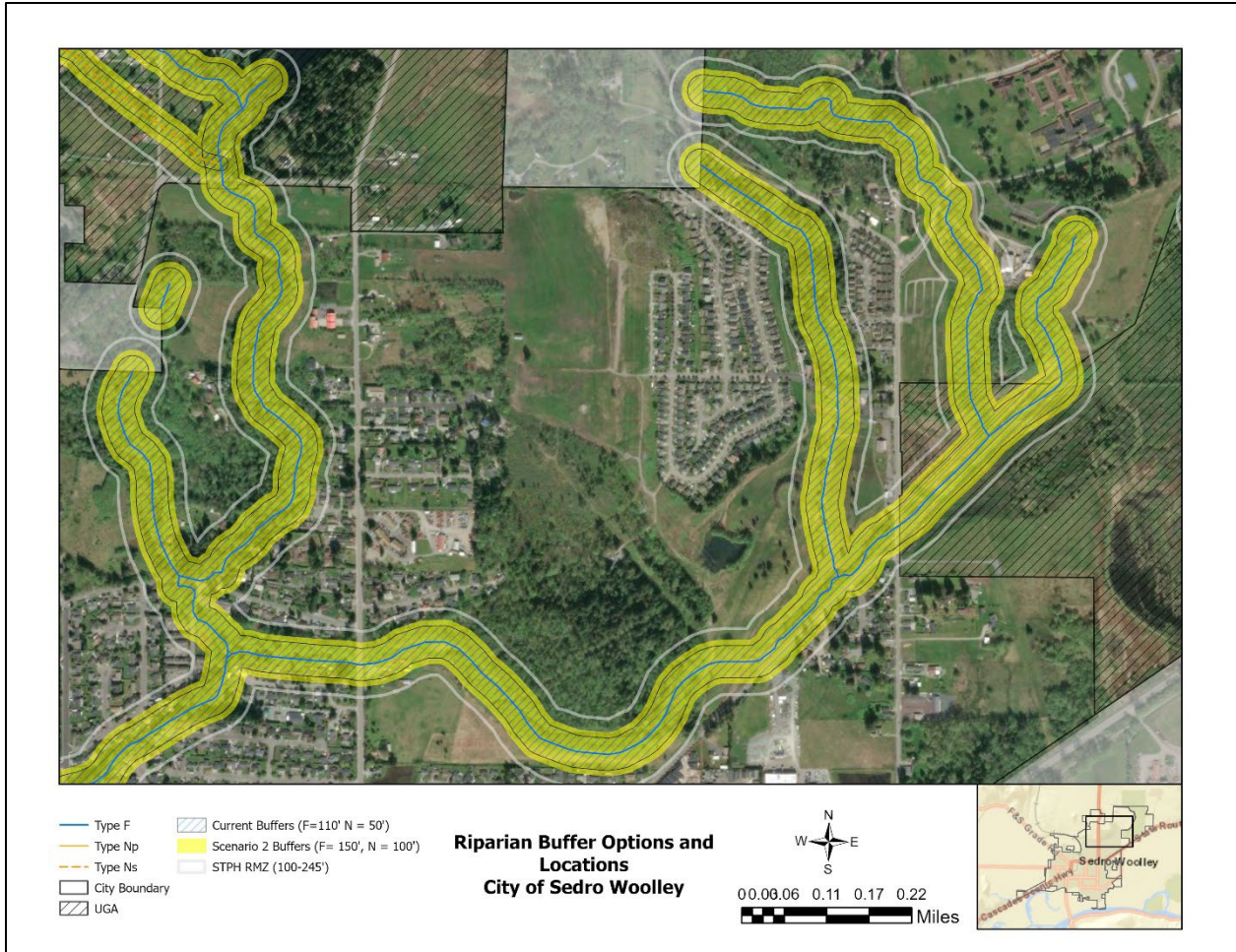
There are approximately 11.8 miles of Type F streams and 1.7 miles of Type N streams within Sedro-Woolley’s incorporated and UGA areas. Ten (10) miles of Type F streams (85%) are in an SPTH<sub>200</sub> RMZ width class above 200 feet. For Type N streams, 50% (0.89 miles), by stream length, are in the 105-foot SPTH<sub>200</sub> RMZ width class (Figure 3).



**Figure 3.** Stream length for each Stream Type in SPTH<sub>200</sub> RMZ Width Classes.



**Figure 4.** Map of Buffer and RMZ distribution in Sedro-Woolley.



**Figure 5.** Map of Buffers and RMZs in the North Area of Sedro-Woolley.

*Assumptions*

It should be noted that this assessment was conducted as a screening tool only and some assumptions were applied based on the publicly available data.

WDFW’s SPTH<sub>200</sub> values are assigned within polygons that correspond to soil types and tree productivity information. Many of these polygons contain multiple RMZ widths based on different dominant tree species. For this assessment, the largest RMZ was used. The result is that if an area is actually forested with a different dominant tree species, the SPTH<sub>200</sub> RMZ width may be narrower. By using the maximum RMZ value possible, this assessment may overestimate RMZ widths and potential impacts.

## Discussion

As Sedro-Woolley considers this assessment, we recognize stream regulations will be reviewed from an implementation feasibility perspective and are balanced with other Growth Management Act (GMA) requirements, including the 15 goals of the GMA. Pursuant to WAC 365-195-915, when nonscientific information, including legal, social, cultural, economic, or political considerations, is used to support critical area policies or regulations that depart from recommendations based on the best available science, the record must: (1) identify the nonscientific information relied upon to justify the departure; (2) explain the rationale for deviating from science-based recommendations; and (3) identify any potential risks to climate resiliency and to the functions and values of the affected critical area(s), along with any additional measures adopted to mitigate such risks.

The following WDFW riparian management recommendations should also be considered for implementation (Rentz et al. 2020):

- Maintaining and improving functions through regulatory and voluntary means,
- Increased regulations for clearing and grading activities within RMZs,
- Expanding Habitat Management requirements
- Implementing stricter exemption requirements.
- Identifying and prioritizing restoration,
- Maintaining and improving riparian connections, and
- Applying low impact development (LID) stormwater management.

Additional strategies that Sedro-Woolley can consider to improve protection of riparian areas are described in the WDFW Riparian Management Zone Checklist for Critical Areas Ordinances<sup>3</sup>, which is a voluntary list of considerations in addition to the Commerce CAO Checklist. These strategies include:

- **Restore or Enhance Riparian Vegetation**
  - For riparian/stream buffer areas to provide intended functions they are presumed to be densely vegetated with native trees, shrubs and groundcover plants typical of our ecoregion. Restoration actions recommended by WDFW include protecting existing habitat, connecting fragmented habitats, restoring natural processes, and creating or enhancing habitat. The City could consider buffer averaging or reductions where the existing buffer is in poor condition, provided that enhancement measures to address those conditions are incorporated into development proposals.
- **Improve Water Quality**
  - WDFW recommends a minimum 100-foot buffer width to provide for adequate pollutant removal to protect water quality as described earlier in this memo (Quinn, Wilhere, and Krueger 2020; Rentz et al. 2020). Water quality can also be supported by

---

<sup>3</sup> WDFW RMZ Checklist for Critical Areas Ordinances, August 2023: [rmrcaocheklist.pdf](#)

incentivizing low impact development and/or Salmon-Safe project certifications, where appropriate.

- **Mapping Restoration Areas**

- The City could consider mapping areas to pinpoint the best sites to restore considering connectivity and adjacency to other mapped Priority Habitats.

- **Incentives to Daylight Streams**

- To support restoration, the City may choose to provide regulations that specifically address daylighting streams at sites with existing legally established nonconforming uses. For stream daylighting or enhancement projects, this may include riparian vegetation improvements, increasing off-channel habitat, reversing channel incision, improving channel morphology, improving streambank stability, and increased quantity of large woody debris (Rentz et al. 2020).

- **Reinforcing Mitigation Sequencing**

- To reduce unnecessary habitat impacts within riparian ecosystems, it is recommended to provide improved regulations for mitigation sequencing. As described in WAC 365-196-380, "*Avoidance is the most effective way to protect critical areas*". Applicants should be required to demonstrate that mitigation sequencing was used in each project proposal that may impact habitat functions or values, including that avoidance was considered.

- **Stricter Clearing and Grading Requirements**

- It is recommended that the City limit clearing, filling, and grading activities within riparian areas, unless they are directly related to restoration, as these activities can negatively impact riparian ecosystems (Rentz et al. 2020). This includes considering restricting placement of on-site septic systems within 100' of riparian areas. It is also recommended that the City incorporate specific habitat assessment requirements as suggested in Riparian Ecosystems, Volume 2: Management Recommendations (Rentz et al. 2020).

- **Expanded Habitat Management Plan (HMP) Requirements**

- WDFW recommends that when an activity is proposed in a RMZ or could affect riparian or aquatic functions, a Habitat Management Plan (HMP) should be required. For consistency with the guidance in WDFW Riparian Ecosystems, Volume 2: Management Recommendations, the Habitat Management Plan requirements could be expanded to include the following:
  - Measurable standards and expectations to monitor compliance and defined triggers for requiring more actions, i.e., performance standards. Examples of measurable standards could include extent of vegetative cover, composition of riparian tree species and maximum invasive plant cover. The Habitat

Management Plan is recommended to also identify the frequency of visits to monitor the site and specify who is responsible for preparing, reviewing, and submitting monitoring reports.

- **Revised Exemption Thresholds**

- SWMC 17.65 could be amended to include exemption requirements for removal of invasive and/or noxious plants within a FWHCA or critical area including hand weeding with light equipment, use only Ecology-approved aquatic herbicides and adjuvants, avoid use of hazardous substances, and avoid soil compaction.
- To aid in the protection of riparian ecosystems, the WDFW guidance references that local regulations should “distinguish the immediate need to permit an emergency activity from the need to compensate for its impacts after-the-fact”. The current regulations in SWMC 17.65.020.D could benefit from additional clarity. To address this, the City could expand the existing emergency allowance that requires applicant to complete applicable City review after the fact and may be required to modify or remove any emergency repair work and provide mitigation for any impacts to regulated areas.
- The City could also consider developing a streamlined review process for riparian restoration/enhancement projects that meet certain criteria.

## References

Quinn, T., G.F. Wilhere, and K.L. Krueger. 2020. "*Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications.*" Olympia: Washington Department of Fish and Wildlife.

Rentz, T, Amy Windrope, Terra Rentz, Keith Folkerts, and Jeff Azerrad. 2020. "*Riparian Ecosystems, Volume 2: Management Recommendations.*" Olympia, Washington: Washington Department of Fish and Wildlife.

Washington Department of Fish and Wildlife (WDFW). April 2023 (Amended August 2023). Riparian Management Zone Checklist for Critical Area Ordinances, A Technical Assistance Tool. (RMZ Checklist). <https://wdfw.wa.gov>